

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 13 June 2019 FPOM meeting.

The meeting was held in the Columbia Conference Room at the CRITFC office, Portland, OR. In attendance:

Last	First	Agency	Email
Baus	Doug	NWD-RCC	Douglas.m.Baus@usace.army.mil
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Thompson	Josie	NOAA	Josie.Thompson@noaa.gov
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Vogel	Jason	Nez Perce	-
Warf	Don	PSMFC	Dwarf@psmfc.org
Wertheimer	Robert	NWP-FFU	Robert.H.Wertheimer@usace.army.mil
Fryer	Jeff	CRITFC	fryj@critfc.org
Whiteaker	John	CRITFC	whij@critfc.org
Wright	Lisa	NWD-RCC	Lisa.S.Wright@usace.army.mil

On the phone: Fryer, Grosvenor, Hesse, Hockersmith, Johnson, Kiefer, McGrath, Peery, Scott, Sears, Vogel, Warf, and Wright.

1. Final Decisions or recommendations made at this meeting.
 - 1.1. May meeting minutes were approved.
2. **The following documents are provided or discussed at this meeting. All documents can be found at: <http://pweb.crohms.org/tmt/documents/FPOM/2010/>**
 - 2.1. Agenda, Fish Passage O&M coordination team
 - 2.2. Composite Cooling Water Strainers Lamprey Counts (NWW)
 - 2.3. BON AFF Research Proposal (CRITFC)
 - 2.4. TDA Spillway History (NWP)
 - 2.5. TD Spillway Condition and Status 2019 (NWP)
 - 2.6. WDFW 2018 NPMP Dam Angling Report
 - 2.7. TDA AWS Follow On Contract Additional Items (NWP)
 - 2.8. Debris Management Plans (NWW)
 - 2.9. Coordination Forms (MOC/MFR)(NWW/NWP)
 - 2.10. FPP Change Forms (NWW/NWP)
3. **Action Items**
 - 3.1. **NWW**
 - 3.1.1. **[June 19] Lamprey Update** - ACTION: Lorz/Morrill will talk to FPC about posting 24 hr lamprey counts with FPC at the FPAC meeting.
 - 3.1.2. **[June 19] 19IHR08** - ACTION: Wright needs to adjust the upcoming summer spill teletype to change the position of spill bay 5 to close.
 - 3.1.3. **[April 19] LGS debris spill** - ACTION: Setter will ask about the debris strategies at each dam and provide a list to FPOM. List was provided at May FPOM meeting, reps will bring any discussion to June FPOM. *Status: Pending; agencies needed more time.*
 - 3.2. **NWP**
 - 3.2.1. **[June 19] TDA Spillway** - ACTION: Cordie will find out if the crane can be used to fix the trunion pin issue.
 - 3.2.2. **[June 19] TDA FUB**- ACTION: Cordie will check to see if the contract can add isolating one unit in the contract.
 - 3.2.3. **[May 19] 19JDA09 MFR Spill gate 20 OOS** - ACTION: Grosvenor will look into why the spill gate closed. *Status: A coupler between the motor and gear box failed and sheared the bolts off.*
 - 3.2.4. **[December 18] JDA/TDA dam angling Catch Results** - ACTION: Morrill will ask Winther for data to be broken down by month. Status: Morrill has the draft 2018 report and will send to Kovalchuk for FPOM distribution. *Status: Completed.*
 - 3.3. **Completed Action Items or to be discussed later in the agenda**
 - 3.3.1. **[April 19] BON PIT room relocation** – Hausmann will get a cost estimate. *Hausmann said the project is now looking at the using the count station at the UMT to hold the PIT equipment with the new antenna system. Using the count station is much cheaper than a new building. The count station is only used when CI exit is open and it is video counting. The next time it will be dewatered is winter 20/21.*
 - 3.3.2. **[July 18] SLEDS Extensions** - ACTION: Hausmann will look into the feasibility of modifying the SLEDs. Status: Hausmann had hoped to get a ball park estimate from the FOG bulkheads but the method of cost per pound of steel doesn't work in this case. Engineering will need to make a cost estimate. *Status: The cost is ~\$3K per foot of height of the SLED. PH2 would cost ~ \$120K. Hausmann thought 10' would be necessary to add to the current SLED. Conder wants to wait until it is a problem. Lorz suggests talking to*

Chane about CRFM funding. VanDyke asked if one entrance is a higher priority than another but Conder didn't think there was any evidence to indicate sea lions prefer a certain entrance. Conder asked if it was possible to lift the SLED up and dog it with middle section open. Hausmann said it might be possible but there is only one dog location and it may not be helpful. Mackey thought leaving an open section would be easier for sea lions than increasing the height. Mackey said that the SLED extension could be submitted for the next budget cycle.

4. Updates

4.1. NWW

4.1.1. Upcoming maintenance/construction/research activities.

4.1.1.1. FPOM outages schedule (Setter) – IHR MU3 is OOS and MU4 is out until June (Although Setter said June at the meeting, the correct date is July). LMN MU1 is OOS for digital governor and doble testing is 25 July – 03 August. IHR doble testing is 22-25 July. LMN spill bay 7 has not yet RTS and the project is waiting on the data collected. LGS doble testing will be sometime in August. Setter thought again and thinks this may not happen. LGS is still on schedule to get the permanent cooling pump electricity.

4.1.1.2. Early Start Up 2020 update for LGR, MCN –MCN has not given a final response on if they can commit to the early start up. MCN will have an internal meeting to see if they have the resources. The MCN decision could impact the ST fallback study. Conder said that the study was not designed with the early start up but if the opportunity was there, then the plan will change slightly to use that information. LGR is confirmed. Bettin asked if the equipment installation will interfere with the screens. Setter is not sure. Bettin asked if there are trolley pipes in place already. Lorz said the hydro acoustics used trolley pipes but wasn't sure if both studies could use the same pipes. It would save on diving over a three year study period to use trolley pipes. Setter said the pipes are difficult from an OM standpoint. If the study is multiple year, a trolley pipe would be better. Bettin is looking for something that doesn't require diving. Setter wants equipment out when they are done but would be okay for a multiple year study.

4.2. NWP

4.2.1. Upcoming maintenance/construction/research activities.

4.2.1.1. BON CI subsidence. – The temporary bridge work is planned for 19 October for three days. BON will cut handrails in August. The temporary bridge will come in sections and put into place on site. The subsidence work in the area will be completed during the winter. Next month an MOC will be provided from the PDT.

4.2.1.2. TDA AWS [Handout] – All the deficiencies have been corrected. The follow on items for items that were not included in the contract will be coming this winter. The sensor will be part of the follow on work. Lorz doesn't feel that it is realistic to run the AWS for 2 years.

4.2.1.3. TDA Spillway History [Handout] – This topic was a request from VanDyke about the history of the spillway. The document is on the website. Lorz asked about the pennants. The pennants are gone but could be remade. Lorz asked about the long term strategy. The project has 1-9 as the priority bays. There is no timeline for fixing bays or the crane. Bellerud asked if the gates were moving more often. Cordie said that the gates were not designed to move as often as they are now. The replacement wire ropes were larger knowing that they would move more often but there are still deficiencies in that system. The crane is a top three priority. **ACTION: Cordie will find out if the crane can be used to fix the trunion pin issue.** The comprehensive

analysis of the spillway is only in the preliminary stage. Bettin asked about the inspection of bay 1. There was a surface check after the log barge crash but engineering wants to look at the base of the spill bay 1 for damage. The PDT would like to do an ROV inspection next week. The outage will be about 3-4 outages and need to push flow from bays 1-4 to 5-8. The project isn't declaring an emergency but dam safety wants to see if there is any damage. Spill bays 1-4 will be closed for about 4 hours for the inspection. An MOC requires two weeks of coordination. Conder would like to wait until spill is over. Mackey will talk to the engineer.

4.2.1.4. TDA FUB- The work from last winter is only half way completed. The PDT thinks the work will take an additional 45-60 days. Last year, the contractor went way over time but still was not able to finish. The contractor will require a line outage. Both units will have to be tested at max and Cordie is trying to wait until November. Lorz asked if one unit could run at a time. Bettin suggested asking if they could add isolation with the bus work. **ACTION: Cordie will check to see if the contract can add isolating one unit in the contract.**

4.3. Research/FFDRWG updates.

<http://pweb.crohms.org/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>

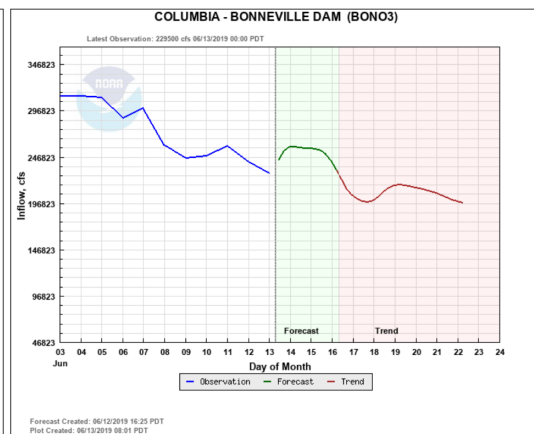
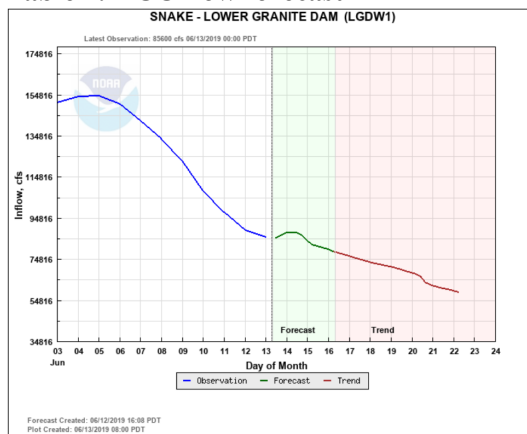
4.3.1.NWP FFDRWG – Last meeting was 06 June. Rerecich received comments on the TDA AWS Phase 1A report. JDA Phase 1A Turbine Rehab was just sent out and the comment period is open.

4.3.2.NWW FFDRWG – Derek's replacement has not been named yet.

4.4. RCC update - Conder asked about the AWS trigger at LGR. It was discussed at TMT on 12 June.

Project	Previous day average (kcfs)	5 day forecast average (kcfs)	10 day forecast average (kcfs)	Projected Low/Peak (kcfs) and date.
LWG	85	75	59	59 (6/22) / 88 (6/14)
MCN	231	186	186	186 (6/17) / 253 (6/13)
BON	233	201	198	198 (6/22) / 258 (6/14)

Table 1. RCC flow forecast



4.5. BPA update- Bettin said that there is nothing of note that will impact fish.

- 4.6. Fish Count Program** – Seven out of 8 projects are auto reporting but IHR is still manually counting. The QA/QC program is being worked out. Peery and Wertheimer had a conference call with Four Peaks and will start QA next week. The main question was about sockeye counts when so many shad are coming through. A double blind check will occur by videotaping the counts and having a supervisor randomly check hours. The CORs (Contracting Officer Representative) will do random samples of the random samples. Lorz asked how counts can be accurate with so many shad coming through and if there is a video back up. The counts are still live but there is video for quality control checks. The contract requires 14 days of video to be kept. The DVRs will record up to a month. The video counts is new for this contract. VanDyke asked about a couple of counts for 6 & 7 June that are not posted. The counts were completed; there were some issues with the coding to post on FPC. Wertheimer stressed that the fish counters are mainly the same and counts flowed during the down time before the contractor started. Setter asked about operational changes that could be made to stop the shad before they get to the Snake River. The problem of changing the flow where salmon pass and shad stop would clog the ladder. Conder said that there is no hard data that the shad are a problem. **Add SHAD as a topic for next month.**
- 4.7. Pinniped update** – Two CSL are above BON– one near Drano and one near TDA but all other sea lions have left BON tailrace. The two week update will come out soon. Conder wants fall hazing and added this to the new Bi Op supplementation. Wertheimer is getting grilled from management about why hazing is required at BON and not at Willamette. Mackey is in charge of the budget and Wertheimer doesn't know if there is funding. The new legislation will be implemented in the spring. Van Dyke will ask if ODFW is interested in trapping the CSLs above BON.
- 4.7.1.BON** – fewer animals were removed this year than last year.
- 4.7.2.TDA-** NEPA documents are moving forward.
- 4.7.3.Willamette Falls** – No update
- 4.8. Lamprey update** – One change of note is that the project has taken over the LPS inspections from FFU. FFU still is in charge of the counting and working on integrating the LPS and window counts. Setter asked if the 24 hrs counts are posted to the website. Day/night time counts from the windows are but the LPS counts have to be viewed and validated first. Peery said that for sites that just use window counts, FPC/Dart is only posting the 16 hr counts and the 24hrs count is delayed and under a different search. Setter thought that posting the 24hr count was under the new contract but Peery said it is not. Setter gets grilled by other agencies that want to know the accurate count and not just the day count. Since many lamprey pass at night, the counts are greatly skewed. The question is how to get these counts incorporated even if it is lagged. Conder brought up the same issue is at LGS. The end of season counts is the most important. Lorz suggested talking to FPC. **ACTION: Lorz/Morrill will talk to FPC about posting 24 hr lamprey counts at the FPAC meeting.**
- 4.8.1.JDA elevator and Lamprey pumps** – The elevator contract has not been awarded yet. The LPS is operational.
- 4.9. Avian Update**
- 4.9.1.BON** – Typical bird numbers for this time of year -a few gulls, osprey, and cormorants. Most lines survived the high flows.
- 4.9.2.TDA** – Hazers were pulled from JDA to help. The laser has some promise but has limitations. Downstream of the bridge the loafers were harassed by laser. TDA took a lot of data and will report at the end of the year. Lorz suggested enhanced hazing.
- 4.9.3.JDA** – There are ~150 pelicans below the islands feeding on the TSW plume. All lines are intact.
- 4.9.4.MCN** – Bird numbers are low. A replacement laser was just installed but still needed to be programmed. The first laser had trouble turning off/on. They now have a replacement to do the study this June/July. Pelicans are feeding along the nav lock wing wall but not in large

numbers and none are at the outfall. Setter asked if anything changed in hazing pelicans. WDFW says no direct hazing will be allowed. No data is being collected on pelican behavior this year. Population survey will be in 2021, if they are delisted then there won't any hazing issues. VanDyke was not aware of any problems with hazing pelicans with ODFW.

4.9.5.FFU – ESI has 1.04 acres for tern habitat but outside the designated area, FFU is actively hazing. Gulls sweep in to take eggs of terns when hazed. Eagles are coming in too. Rice Island – passive fencing is up and no nests. No issues. Bridge has tons of DCC.

- 5. BON AFF Steelhead Research Proposal (Lorz)** – Whiteaker runs the AFF sampling program and gave an overview of CRITFC's steelhead study proposal. FPOM has imposed a temperature sampling restriction at 72° or higher. During these high temperatures, they miss about 25% of the ST data. The idea behind the restriction is that additional mortality is prevented by not handling fish at a high temperature. CRITFC would like to test this assumption. This is important to TAC for management, especially in the US V. Oregon management. For impacts within the study period, each fish that is handled would be considered a mortality until it is detected upriver. This study is for steelhead only; all other fish will be passed without handling. Very few Chinook migrate during this time period so CRITFC feels the impacts to them would be small. Whiteaker would like to change the density criteria as well. Control fish would be PIT-tagged-as-juvenile fish that were not handled compared to the AFF-handled fish that were PIT-tagged-as-adults. USvOR TAC and the USvOR Policy Committee are supportive of this proposal. Sample size has made it difficult to characterize the ST stocks passing BON when the temperatures are above 72°. Bettin asked how this proposal will help Whooshh. More fish would be going to the scanner. Bellerud thinks this plan doesn't quantify the take properly. Harm, harass, or delay is considered take by NOAA. Mortality/take is covered under the US v Oregon Bi Op. Conder has concerns that the fish that are diverted and not sampled are not considered "take" when they should be. Bellerud suggests data mining the fish that were below the 70 threshold to see if there were any effects below. Hess said that they thought about that but this study is about handling effects. Conder thinks that there is already a body of evidence for handling temps; this information was used to make the FPP language. He understands the concern about bias of steelhead numbers while trying to manage the fishery. Conder would rather see some way of getting the information through the counts and using video window counts would increase the sample size compared to the number of fish using the AFF. Bellerud said that when granting permission for take, the first question is always is there is another way of getting this information that is less impactful to fish. This study will increase the non-target fish as well such as Snake River sockeye and Chinook. Most of the sockeye will have passed. Hess said he wants to put in perspective the take when they use this information for fish management. Hess said there is a difference between an assumption and knowing if there is take which is the basis of this study design. Conder said he has already seen the evidence that higher temperatures increase mortality so there is no reason to run another test. Morrill asked about using the pre-tagged fish but this study is to quantify the effect of handling. VanDyke asked what CRITFC can bring to convince NOAA especially with climate change in order to know what is happening in the river with higher temps. Conder said that there is plenty of information on fish passing through the system at temps higher than 72. The issue here is testing handling and NOAA already has information below 72 showing it is bad so there isn't any point in testing a higher temperature. Bellerud said there should be caution when using migrating fish as the test subject. Whiteaker doesn't think the ST would be affected by the handling. Conder said that the trend line in their study showed an increase in mortality. Hess said that the temp effect is known but study is to look at if handling has an additional effect. Conder said that by putting the pickets down, this will increase the number of CH going through the AFF which will increase mortality even if they are not handled. Hess suggested looking at the survival between the pickets are down and up during high temps. Mackey asked about the density criteria. Whiteaker said during the August timeframe, the density criteria is not likely to be a concern. Mackey said adding the stress of density on the ladder

under high temps is not a good idea. Hess said that they are not proposing to get rid of the density criteria just testing to see if this impacts the sample. Mackey said that the COE has 20 years of density data and that's why the criteria is in the FPP. Mackey said that this study requires an MOC and TAC needs to look at additional ways of determining A and B run ST. CRITFC is partnering with Whooshh to help gather information but it is still using the AFF. **The path forward is for CRITFC to submit an MOC to FPOM for further discussion.** Whiteaker said that they understand that there are impacts but this data is very important for overall management. Hess added that additional mortality is covered under their ESA impacts within their Bi Op but they are not able to utilize this due to the restrictions at the AFF. Mackey said the issue is that TAC operates under a different Bi Op and didn't take into consideration the criteria that was already establish for the best interest of fish.

6. **NPMP non-native species by catch (ODFW/WDFW)** –VanDyke has not heard if the pilot study will be done again this year yet. Dam angling has started. Cordie asked if the PUD has a study to remove the bass/walleye. Morrill said that the language has changed in the scientific collection permit -no removal of non-native unless it is requested and approved. The permits that were given out have now been modified to reflect this language. Conder asked if there are any results from the dam angling study that will lead to a management action. VanDyke said it was not even a pilot study and has no management effect. VanDyke doesn't sit in the regulatory process. The pikeminnow went through a long process back in 90s to see if there was a predation threshold that effect juvenile salmon. If there has been some behavioral or foraging changes in the last 30 years, then it could be looked at. Conder would like to look at the threshold for pikeminnow and see if it is similar to the non-native species. VanDyke said he was not sure that the NPMP would become a removal program for non-native species as well. Lorz said that this question was about why known predators in the by-catch are being returned to the river and not about targeting bass/walleye. He would like to know what the criteria was for targeting a 9" pikeminnow and see if the criteria could be applied to the by-catch species. Setter said that the information given has indicated that pikeminnow is the problem. Lorz replied that he isn't saying that pikeminnow aren't a problem but that there could be other problems as well. VanDyke will check to see if the pilot study is on. Bellerud asked about limiting fishing below LGS when fish are delayed in the tailrace. WDFW doesn't find fishing below the dam to interfere with passage. TDA had asked WDFW to put a restriction on the east exit without success. Conder has no problem with fishing allocation but thinks there should be a restriction close to the project. Coordination between TAC and Hydro is needed.
7. **Coordination/Notification forms (need concurrence/discussion)**
 - 7.1. **19LMN06 MFR Delayed Opening of Spillway Weir**
 - 7.2. **19LMN07 MOC Fish Pump Outage for Penstock Bulkhead Inspection**
 - 7.3. **19IHR07 MFR Spill gate #4 gear box failure**
 - 7.4. **19IHR08 MFR Spill pattern change to minimize operation of spillbay #5 gearbox** – Setter received an update that the gear box cannot be fixed this spill season. Thompson asked how this will effect egress with low flow. The spill bay is dogged off at a certain elevation. Setter will discuss with Laughery the best place to dog off the gate. The other option is to come up with a pattern with it closed. The project had to repair another gearbox so they don't have any spares left. The 30% spill is coming up and the transition might require another dog location change. Hockersmith looked at the FPP and spill bay 5 is not used below 90kcfs. Lorz suggested looking at spill for the next five days of gas cap spill 65kcfs spill with TSW. Hockersmith said that bay 5 would be at 6 stops which where it is dogged off. **ACTION: Wright needs to adjust the teletype to change the position of spill bay 5 to close.**
 - 7.5. **19MCN07 MFR Spillbay 1 repair** –The repair will be after the spill season. The spill gate is still functional.

- 7.6. **19MCN08 MOC Delay in TSW removal per FPP** – The last two years, FPOM asked them to delay for high flows and debris but this year was on Saturday. This topic will be discussed at the annual FPP meeting to see if this needs to be in there.
 - 7.7. **19JDA11 MFR Spill bay 11 OOS**
 - 7.8. **19JDA12 MFR Spill bay 7 brake failure** – Bay 7 is still not working and expected to RTS by early next week. Kovalchuk brought up the egress concerns when two bays are out of service. If it happens again, she will engage the other agencies in making sure the egress is acceptable.
 - 7.9. **19TDA09 MFR PUD Turbine Outage**
 - 7.10. **19TDA10 MFR SS turbine sturgeon morts** – VanDyke requested that projects talk to the sturgeon people when there is a mortality event. He will provide contacts.
8. The final 2019 FPP is available online at: <http://pweb.crohms.org/tmt/documents/fpp/2019/> All 2019 FPP change forms and draft chapters/appendices are posted at: <http://pweb.crohms.org/tmt/documents/fpp/2019/changes/>
 - 8.1. **Pending Change Forms:**
 - 8.1.1.19LGS004 – Channel Velocity (Peery/ St. John). Pending more information on rationale for changing the location.
 - 8.2. **New Change Forms:**
 - 8.2.1.19BON003_SLEDS
 - 8.2.2.19BON004 – Day/Night Hours
 - 8.2.3.19IHR005_Units_5_6_Range
 9. **Task Group Updates.**