

## MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 12 September 2019 FPOM meeting.

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

Last	First	Agency	Email
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On the phone: Baus, Brandl, Graham, Johnson, Peery, Sears, VanDyke, Walker, Warf and Wright.

## 1. Final decisions or recommendations made at this meeting.

1.1. August meeting minutes were approved.

- 1.2. 19 LWG 08 MOC - JFF Phase 1a Concrete and Rock Removal – FPOM concurred with this work.
- 1.3. 19LGS10 MOC T1 Outage – FPOM concurred with the updated schedule of this action.
- 1.4. 19JDA08 MOC Line 1 outage – Bushing replacement – If MU 5 has not returned to service by the time this works starts then spill will be increased to 3.2Kcfs out of bay 2.
- 1.5. 19BON52 MOC Spillway Hydro-survey – FPOM concurred with this action.
- 1.6. 19BON56 MOC PH2 OWS Install – FPOM concurred with the night work using the FPP BON Table 5 times. FPOM concurred with the work during the IWWP. Brandl will try to move the unit outages to February. If additional work in March is required, an MOC will come back to FPOM.

**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. BPA Transmission outages (BPA)
- 2.3. Whooshh In-Season Report update 3 and Sockeye Report (Whooshh)
- 2.4. BON Blown LFS hatch picture (NWP)
- 2.5. Dewatering Schedules (NWP)
- 2.6. 2109 Fish Transport TDG Monitoring Report (NWW)
- 2.7. NWW dam debris pictures (NWW)
- 2.8. Debris Ideas for NOAA (NWW)
- 2.9. Shad ideas for FPOM (NWW)
- 2.10. Flow and Weir Report for Shad Discussion (NWP)
- 2.11. MCN Laser Evaluation (NWW)
- 2.12. Coordination Forms (MOC/MFR)(NWW/NWP)
- 2.13. FPP Change Forms (NWW/NWP)

**3. Action Items**

**3.1. NWW**

**3.2. NWP**

- 3.2.1. **TDA AWS- ACTION:** Cordie will find out about the details associated with the follow-on contract commissioning testing.
- 3.2.2. **COE Temperature Profile Strings - ACTION:** Kovalchuk will find out when the report is expected.

**3.3. Completed Action Items or to be discussed later in the agenda**

- 3.3.1. **[August 19] Debris maintenance - ACTION:** Setter will look for images of how debris collects at the upper dams. *Status: See 3.1.1.3.*
- 3.3.2. **[August 19] Shad dissuasion - ACTION:** BPA will look into the shad research supported by BPA. *Status: See 4.0.*
- 3.3.3. **[August 19] Shad dissuasion - ACTION:** The States will discuss removing juvenile shad at the JBS facilities internally. *Status: See 4.0.*
- 3.3.4. **[August 19] 19MCN13 MOC Steelhead overshoot transducer install - ACTION:** Walker will send project plans/pictures with the handrails in place to the group. *Status: Issue was resolved when more information became available regarding TSW installation process for bay 20. The Gantry crane will only block the roadway for a relatively short period of time during installation/removal of the TSW in bay 20 thus the evaluation in bay 20 will remain as originally planned.*

- 3.3.5.[August 19] TDA FUB - ACTION: Cordie will invite the new PM (Dasso) to the September meeting. Status: See 3.2.8.**
- 3.3.6.[August 19] BON sea lion hazing - ACTION:** Mackey will set up a special phone call meeting in two weeks with the other federal entities to discuss hazing plans. *Status: Completed.*
- 3.3.7.[July 19] Early Start Up - ACTION:** Setter will come back with a list of tradeoffs for the MCN early start. *Status: Discussed as an agenda item.*
- 3.3.8.[July 19] Shad - ACTION:** Setter suggested everyone bring their list of ideas/tradeoffs for shad removal. *Status: Discussed as an agenda item.*
- 3.3.9.[June 19] TDA FUB- ACTION:** Cordie will check to see if the contract can add isolating one unit in the contract. Status: Cordie checked with the electrical engineers and it is doable but it would extend the contract. The Project also has concerns about asking this contractor to do any more work because of the work quality of this contract. Bettin asked if another contractor could be hired to isolate. Cordie will into this possibility. *Status: No, the project is not looking into this suggestion. The contracting process will take too long. Lorz wants to know what the COE is doing to ensure the region that there will not be a similar situation as last year. The project wants to run the AWS for the month of February. Lorz asked if the AWS could run in October but the follow on contract will end the third week of January. Lorz would like the COE to at least try to get some run time on the AWS before it is necessary to run it. Bellerud would like to know when the check points happen to make sure the schedule is being followed. ACTION: Cordie will invite the new PM (Dasso) to the September meeting. Many FPOM members expressed their distain about the contracting process and the lowest bidder format. FPOM would like a formal after action of the FUB contract. Cordie will inquire about a two week early start in November. The flow out of the AWS is ~1.4. The November time may not work out due to contracting.*

#### 4. Updates

##### 4.1. NWW

##### 4.1.1. Upcoming maintenance/construction/research activities.

- 4.1.1.1.** FPOM outages schedule (Setter) – No updates to the schedule this month. Doble testing will occur at MCN on T4 and T5 as scheduled. Bettin mentioned that equipment installation for the upcoming study limited MCN capability to 53K. At LMN, the concrete caps on one of the coffer cells has collapsed. There will be more to come in the future.
- 4.1.1.2.** Early Start Up 2020 update for LGR, MCN – There is uncertainty as to when the fish pump work can get done at MCN but they are still trying for the early start.
- 4.1.1.3.** Debris Maintenance – [Pictures Posted] Debris pictures were sent out after the last FPOM. NOAA requested that this stay on the agenda because they are still looking at this issue.
- 4.1.1.4.** LWG Spillway PIT Construction Schedule update – As coordinated, the PIT Tag divert to river system was taken out of service for 5 hrs. By 11:30 on 03 September, operations had returned to normal. Dive work should be completed by 14 September and concrete demo can start early. They are ahead of schedule by about 2 days. All construction activities are expected to be complete by 15 March. Testing on the antenna encased in concrete has recorded promising results. The conex boxes are in Pasco and PSMFC is wiring them now. Setter asked if the typical number of PIT tags should pass LWG this year. Warf said that yes, the typical numbers should be coming through. The live fish test won't happen due to cost. Lorz did not think that there were less tags this year either. Conder thinks there will be less fish through the RSW due to the other gates running deeper for the gas cap spill. Lorz asked when the seal will be complete. It should be in about two weeks.

**4.1.1.5.** 2019 Barge and Raceway TDG during spring spill – [Handout] the white paper was sent out last week. Hockersmith correlated the TDG raceway readings with the forebay levels. If the LWG tailrace is at 125% (as it is planned), it will produce a forebay at LGS of 120% and a raceway reading of 114.5% which could be a concern. Involuntary spill could induce levels higher levels in the raceways. Hockersmith cited data that said holding fish at 120% can cause mortality in 20-35 hrs in steelhead and 40-120 hrs for Chinook. The gas levels in the barges are reasonable. Hockersmith is most concerned about LGS. The project thinks the elevated raceway TDG levels could be reduced for the water going into the head box. The project is looking into adding an orifice plate where water enters the raceway head box. They are considering an operational change as well which is when loading into raceways instead of direct loading to hold the fish for a shorter amount of time but this depends on personnel staffing. In the past, mortality increased using direct loading during high debris times due to clogging. Setter said this fall, they have had clogs in 1A even with the debris boom in place. The project increased the size of the orifice in 1A to see if that would help but it did not seem to work. They have a dilemma of doing direct loading with an increased risk of fish kills due to debris clogs or holding the fish in higher TDG. Setter said that the project would like to increase the pipe size for direct loading but there is no funding for it. Conder asked about making a debris boom with a sharp side like at LWG. Setter said that LGS boom was controversial when it went in. LGS and LMN would like LWG to collect debris but it is a big challenge. Conder would like to see a more effective debris boom and adding an orifice plate to the raceway headbox for next year. Setter said that the plate will be investigated and that the project will try for the operational change as well.

## **4.2. NWP**

### **4.2.1. Upcoming maintenance/construction/research activities.**

**4.2.1.1.** 19BON31 MOC CRITFC LPS collection – CRITFC received several comments from the FPOM group. The Tribal Technical group met to work on the responses. The responses will be further reviewed at the Lamprey Task Force meeting on 18 September prior to sending them out to FPOM. They do plan to continue on with the MOC but they need to have all four tribes review the responses first. They expect to be ready by the October meeting. The total number of lamprey collected by all the tribes is 1439 fish from Bonneville (998 from the AFF trap), 580 at TDA, and 370 at JDA. McClain said that the lamprey run is comparable to the 10 year average. Swank asked if there was any preference where the fish came from. Porter said no more than 50% of the allocation can be collected at BON. Swank asked if within BON is there any preference. Porter said no but they care if it is efficient. As for fish that are in the LPS, even if a fish is at the top of the LPS, out of those, only 50% make it to TDA. CRITFC is creating a one page fact sheet that has a lot of the genetic data, how the allocation is calculated and how this data is used to make decisions. Swank said that the USFWS comments are not to stop the translocation program but to lessen the impacts to the rest of the run. Porter said that the MOC has been adjusted based on the comments received. Swank would like to see the COE build a trap off the LPS so it would not impact the rest of the run. This would be difficult to separate a water supply. Lorz said that dead fish are routinely removed from the rest boxes so why would this be any different. Setter asked about breaking out which fish are meant for going upstream. Porter said they are analyzing all the current data to see if they can change their practices for the best solution. They will modify the MOC so that it is a two year pilot study. Hausmann said that the LFS had a blown hatch which likely had a negative impact on the functionality. They would like to seal the hatches for next

year. Due to the limited OM funding, Hausmann has been trying to prioritize the CI trap but asking for access to the LPS would eliminate the argument for a new trap. Porter asked if they could send a letter of support. Lorz said that the CI trap is the first step and the LPS would be the second step. Setter suggested not discussing what may not work until that time comes. Mackey said that adding the LPS option which is no cost makes it difficult to sell the trap which is better biologically. McClain said that the CI trap is in a good location and would like to see this move forward. Hausmann feels fairly confident that trap will move forward. Next year, the U of I study is over so CRITFC can collect all the lamprey from the AFF trap.

- 4.2.1.2. 19TDA04 MOC Crane Rail Replacement – No update
- 4.2.1.3. 19JDA08 MOC Line 1 outage – Bushing replacement – Lorz requested 3.2Kcfs spill if unit 5 is out of service. Bettin needs to talk to his superiors before agreeing.
- 4.2.1.4. COE Temperature profile strings – The final season is over and the equipment was collected from all the dams. Some buoys were stolen at The Dalles and the probes drifted from their set location but the team was able to recover them. **ACTION: Kovalchuk will find out when the report is expected.**
- 4.2.2.BON Whooshh update – There are two reports posted on the website.
- 4.2.3.BON LFS hatch – When the tail water came down, Royer reported that a hatch was missing. There are two more hatches below water level that can't be seen. BON would like to weld all the hatches shut. They are trying to get an ROV to see if there is additional the damage. Kovalchuk suggested using the TDA ROV during the low flows on Friday. The LFS will be shut down on Friday. *Email Update from Hausmann: The flows are too strong for the TDA ROV.*
- 4.2.4.BON CI PIT room – PSMFC would like an 8 hour outage this winter for CI to take measurements. Hausmann will write an MOC later.
- 4.2.5.BON Nav Lock – The Nav Lock went out of service on 05 September and the RTS is expected to be 30 September. The sill has been demolished and a new sill is being constructed. The sill is a concrete curve where the downstream gates meet that started to tilt forward. The tilt caused a lift separating from the concrete floor. The Nav Lock inspection is every 5 years and the last inspection was in 2017.
- 4.2.6.BON Tug Diane – The Navy and Coast Guard are salvaging the Tug this weekend. Flows will be very low over the weekend.
- 4.2.7.TDA spillway MRER – Last FPOM, Cordie reported that the MRER was fully funded but this is not true. The project feels that there are some positive signs that it still might go forward. VanDyke asked if any end of year funding could be used for this report. Mackey said no because there isn't enough time to expend labor dollars.
- 4.2.8.TDA FUB – Dasso (PM) could not make it to the meeting. The PM said that they are well aware of the issues from last year. They will have a checklist of items that need to be completed before starting, a detailed schedule, clear delineation of the work by the contractor and by the project, testing must be done before the line is taken out of service and the PDT is looking into one fish unit at a time but the project doesn't think it is feasible. The project feels better this year about the contract than last year. Lorz suggested starting the week before the IWWP but Thanksgiving is in that week.
- 4.2.9.TDA AWS – There was an FPOM request last month for additional run time for verification that the system works. Bettin asked if the valves could be used daily and Cordie said they could. If the system is run long term, Bettin will request turning it off at night and on during the day to save money. Bettin wants to run the AWS when spill for lack of load is scheduled. The reliability of the AWS will be used to decide if the turbine should be fixed blade or propeller for the upgraded fish units. There is testing associated with the follow on contract. **ACTION: Cordie will find out about the details associated with the follow on contract commissioning testing.**

- 4.2.10. TDA Weir 157 – Weir 157 failed and the project requested a high forebay constraint. The weir is now secured in place and it can be dropped in manually. The parts should be in by 26 September.
- 4.2.11. JDA south turbine pump #3 – The project has a bearing on hand and it should be repaired next week.
- 4.2.12. JDA elevator – The contract was awarded. The contract should start next week and the work is expected to take one week.
- 4.2.13. JDA north pumps – Pumps 3 and 4 have failed. The repair on pump 3 should take a week. Pump 4 has a bearing issue that still needs to be investigated and possibly contracted out.
- 4.2.14. Dewatering schedules
  - 4.2.14.1. BON – not completed
  - 4.2.14.2. TDA – posted online
  - 4.2.14.3. JDA – posted online

4.3. Research/FFDRWG updates.

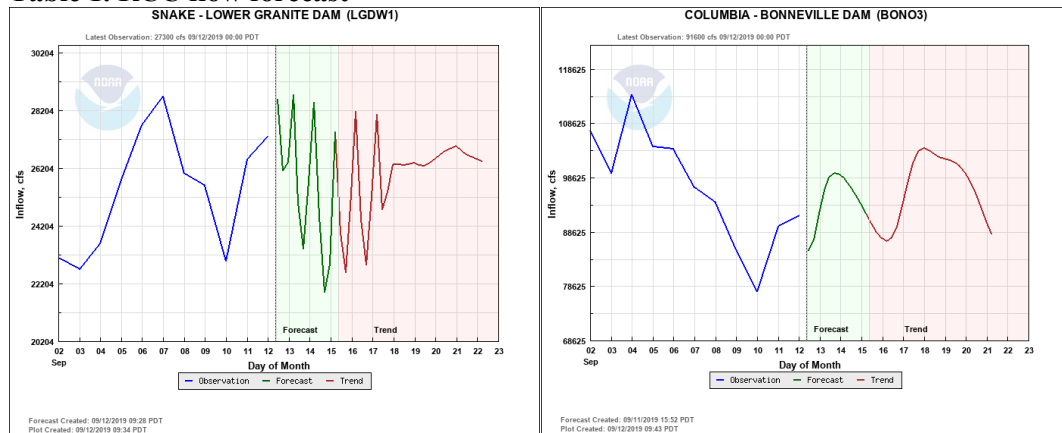
<http://pweb.crohms.org/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>

- 4.3.1.NWP FFDRWG – October 3, Block 300 in the Fireside Room. New fiscal year funding will be discussed.
- 4.3.2.NWW FFDRWG – NWW just had a meeting. Chuck Chamberlain is the new AFEP coordinator.

4.4. RCC update

Project	Previous day average (kcfs)	5 day forecast average (kcfs)	10 day forecast average (kcfs)	Projected Low/Peak (kcfs) and date.
LWG	28	26	26	23 (9/12) / 26 (9/14)
MCN	82	86	80	80 (9/21) / 98 (9/17)
BON	95	89	88	85 (9/12) / 103 (9/18)

Table 1. RCC flow forecast



- 4.5. BPA update – [Handout] Two outages are scheduled for next week at BON. Bettin reminded Hausmann to make sure the switch for the fish units happens.
- 4.6. Fish Count Program - A few technical issues and final details for QAQC are being worked out. Lorz requested an after action to see what works and what doesn't. Peery said that will happen internally. Lorz has some tweaks to FPC website that he would like to see. Setter wants to the

night time lamprey counts added to the website. Lorz said the full counts would help for their analysis as well.

**4.7. Pinniped update**

**4.7.1.BON** – There are 20-40 SSL in BON tailrace. FFU is monitoring currently since the trigger has been reached.

**4.7.2.Willamette Falls** – no update

**4.8. Lamprey update** – U of I stops tagging on 13 September. The LFS and AFF trap will also shut down on 13 September. Setter asked about removal of equipment. McClain said no future funding is expected and all equipment should be removed.

**4.9. Avian Update**

**4.9.1.BON** – normal fall bird numbers

**4.9.2.TDA** – no update

**4.9.3.JDA** – no update

**4.9.4.MCN** – Peery sent out the summary of the laser evaluation. There were not many replicated blocks but some promising information on dissuading birds. MCN is purchasing a second laser to mount on the outfall. They will do another study next year. Conder said they may want to think about a sprinkler for mid-day. Lorz brought up adding wires to the tailrace. MCN is familiar with the cost of the JDA wire grid and not interested in having a high OM burden. Conder said that MCN wires are a conservation recommendation in the latest Bi Op and are going through the FFDRWG process.

**4.9.5.FFU** – Next month, FFU will do PIT recovery on ESI, just waiting for the PIT dragger to be repaired.

**5. Shad discussion (Setter)** – [Handout] There is no funding for anything that involves monitoring. Setter suggests leaving this topic on the agenda for next month so people have a chance to review the paper. Hockersmith had data showing that sockeye used the weir crest rather than the orifice. However, he pointed out that when the crest was blocked, the sockeye went through the orifice. Sullivan had researched the issue before but needs to follow up on the current data.

**6. Coordination/Notification forms (need concurrence/discussion)**

**6.1. 19 LWG 07 MOC – PIT-tag River Return Diversion Outage – See 4.1.1.4.**

**6.2. 19 LWG 08 MOC - JFF Phase 1a Concrete and Rock Removal** – Previous work has been coordinated in an MOC but it did not cover the specific details of this action. The contractor is removing concrete near the fish way entrances and there will be rock removal near the fish ladder starting on Monday for five days. Conder wants the work done at night. Conder wants to know why this is scheduled during the fall Chinook run. Both Conder and Lorz are very unhappy about the lack of coordination. The rock excavation is near the picketed leads and not that close to the trap. The rock removal is for the project to get access to the picketed leads. **FPOM concurs with the MOC for work from 1800 to 0600.**

**6.3. 19 LGS 09 MFR – Doble Outage Modification and ESBS Problems**

**6.4. 19LGS10 MOC T1 Outage** – The schedule was update to accommodate the request of FPOM. **FPOM concurs.**

**6.5. 19LGS11-13 MFRs for Fishway cooling pump outages**

**6.6. 19 LMN 10 MFR Bird Sprinkler Pump Motor Failure**

**6.7. 19 IHR 14 MFR - Adult Chinook mortality**

**6.8. 19 IHR 15 MFR - North shore fishway entrance malfunction**

**6.9. 19 IHR 16 MFR – Fish mortality found below east end of south fish ladder**

**6.10. 19 IHR 17 MFR – Spill bay 4 temporarily out of service**

**6.11. 19 MCN 14 MFR – Fish pump outage**

**6.12. 19 MCN 15 MFR – Fish pump outage**

**6.13. 19BON46-51 and 53-54 MFRS**

**6.14. 19BON55 MFR Nav Lock mortalities** – Lorz is wondering why the Nav Lock was dewatered without monitoring the water level. He noted that dewaterings happen every year and should follow a certain procedure. The Nav Lock went OOS on Thursday. Hausmann said that the project started pumping on Friday afternoon and during the night. Fisheries discussed the timeframe with the Control Room and mechanics. The plan was to salvage in the morning but there were dead fish before Fisheries arrived. BON has a standard operating procedure already in place and they are surprised that this happened. A couple of factors that could have played a role were that it was a rush job due to the emergency and only one rover operator was scheduled since it was a Friday night. Hausmann is not sure what can change in the process to prevent this type of human error but is looking into it. Lorz asked if there is an after action. Hausmann said yes but if there is any sort of disciplinary action than it cannot be shared. Conder suggested having a fish bio come in early to make sure this doesn't happen. Hausmann said that is already in place. Conder suggested adding a frequency to the checking times. There will be a fisheries training session at BON at the All-Hands meeting and as a power point for operators that cannot make the meeting. FPOM reiterated their frustration at a mortality event that should be prevented by a good standard operating procedure.

**6.15. 19BON52 MOC Spillway Hydro-survey** – September 24 is the hydro-survey. The attraction water will be alternating between the two spill gates. The ROV crew is not available to do the follow up survey on the same day. No one is happy about having two days out for this second survey. In the future, the two surveys need to be done on the same day. FPOM wants a multi-year contract in place. Hausmann suggested adding this to the FPP since it happens almost every year. Mackey will bring this up to Easton. **FPOM concurred with this work.** Mackey suggested using last year's information for the contract.

**6.16. 19BON56 MOC PH2 OWS Install** – Hausmann explained that this project has been in planning for several years and had been shelved for a few months. Once the PDT reconvened, the team had mistakenly thought FPOM coordination had taken place which it had not. Heavy construction is planned for night shift and light construction during the day. Lorz was not pleased that this issue appeared to fall through the cracks and was found by Conder doing an inspection. Lorz and Conder have an issue with the amount of unknown vibration for the light construction. Bettin pointed out that during the TDA AWS construction, the excavator although loud was not picked up as high decibels or vibration in the ladder. Air noise is not as big of an issue as vibration. The light construction work will start at the powerhouse. Electrical conduit for lighting will be run inside the chute and put small anchors will be installed in the ceiling for the conduit. Lorz asked which side of the ceiling. Brandl said it is mostly in the middle. Conder asked why this wasn't done when the ladder was out of service. Mackey said the answer is because it was not coordinated ahead of time like it should have been. The unit outages in March will likely be a problem. Brandl will try to move them into February. Bettin asked why all four units have to be out at the same time. Brandl was not sure and will look into it. **Light construction – FPOM concurred.** Conder has an issue with the 1700 start time with night work. The Table 5 BON will be used for the hours. **Night work using BON Table 5– FPOM concurred.** Bettin asked about the ITS and it will be open. **Winter maintenance – FPOM concurred.** Unit outages need to be moved into February. If the unit outages can't be moved, the issue will come back to FPOM. If work in March is necessary, it will come back to FPOM.

7. 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/>

**7.1. Pending Change Forms: None**

**7.2. New Change Forms: None**

**8. Task Group Updates.**