

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 12 December 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
Baus	Doug	NWD-RCC	Douglas.m.Baus@usace.army.mil
Bellerud	Blane	NOAA	Blane.Bellerud@noaa.gov
Benner	Dave	FPC	Dbenner@fpc.org
Bettin	Scott	BPA	swbettin@bpa.gov
Chatfield	John	NWW	John.L.Chatfield@usace.army.mil
Conder	Trevor	NOAA	trevor.conder@noaa.gov
Ebel	Jonathan	IDFG	Jonathan.Ebel@idfg.idaho.gov
Grosvenor	Eric	NWP-JDA	Eric.Grosvenor@usace.army.mil
Hausmann	Ben	NWP-BON	Ben.J.Hausmann@usace.army.mil
Hockersmith	Eric	NWW	Eric.E.Hockersmith@usace.army.mil
Johnson	Bobby	NWW-MCN	bobby.johnson@usace.army.mil
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Lorz	Tom	CRITFC	lorz@critfc.org
Mackey	Tammy	NWP	Tammy.m.mackey@usace.army.mil
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Royer	Ida	NWP-PM-E	Ida.M.Royer@usace.army.mil
Sears	Sheri	Colville	Sheri.Sears@colvilletribe.com
Setter	Ann	NWW	Ann.L.Setter@usace.army.mil
Thompson	Josie	NOAA	Josie.Thompson@noaa.gov
VanDyke	Erick	ODFW	erick.s.vandyke@state.or.us

On the phone: Chatfield, Ebel, Hockersmith, Johnson, Martinson, Miller, Morrill, Randall, Royer, Sears and VanDyke.

1. Final decisions or recommendations made at this meeting.

- 1.1. November meeting minutes were approved.
- 1.2. One hour of fish passing through a Bonneville count station window will be posted on the FPOM website for any future requests for video feed.

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. LWG Spillway PIT Schedule (NWW)
- 2.4. LWG AMRIP adult trap upgrade (NWW)
- 2.5. Marine Insight FPOM Video Request
- 2.6. Coordination Forms (MOC/MFR)(NWW/NWP)
- 2.7. FPP Change Forms (NWW/NWP)

3. Action Items

3.1. NWW

- 3.1.1. **[December 19] LWG Spillway PIT Construction** - ACTION: Hockersmith will keep Bettin updated on the schedule for the spill test.
- 3.1.2. **[December 19] Per Bettin's question about screens** - ACTION: Setter will follow up with Richard Turner about the investigation into screen replacement.
- 3.1.3. **[December 19] Invasive species discussion** - ACTION: Van Dyke will check to see if the laws are same as WDFW on northern pike.
- 3.1.4. **[November 19] Shad discussion** - ACTION: Setter will send out an AMRIP brief of the proposed shad removal/restriction methods to FPOM. *Status: Setter sent out the AMRIP brief to FPOM. The description is about the turn pool gate improvements for the trap and doesn't mention shad. However, this is the improvement that will reduce shad numbers in the trap. The project doesn't have enough money to make a cost estimate. Holdren is aware that the design has to go through FPOM prior to modification.*
- 3.1.5. **[November 19] 19IHR18 MFR South fish ladder picketed lead debris problem** - ACTION: Peery will follow up with Fone on any actions for next year to reduce the chance of a reoccurrence of this debris problem. *Status: Peery completed this task.*
- 3.1.6. **[November 19] Fish Count Program** - ACTION: Peery will send an outline of the QA/QC program to Lorz to share with FPAC. *Status: Peery shared the program but it wasn't shared at FPAC. Lorz said that FPAC hasn't had a meeting since receiving the plan.*

3.2. NWP

- 3.2.1. **[December 19] 19BON65 MOC PH2 OWS installation** - ACTION: Hausmann will follow up on making sure that the outages have been removed from the outage schedule.
- 3.2.2. **[December 19] TDA AWS** - ACTION: Randall will follow up on if there is an alarm for flooding.
- 3.2.3. **[December 19] BON BI dredging** - ACTION: Mackey will follow up with BON next week to see where they are at with the dredging contract.
- 3.2.4. **[December 19] TDA dewatering** - ACTION: ACTION: Randall will make sure the PM on the pumps are being completed.
- 3.2.5. **[November 19] Lamprey Update** - ACTION: Lorz will ask the lamprey task force about the entrance flow plan for next year. *Status: Reducing the flows at the entrances looks slightly beneficial. The Corps has concerns about staffing and extra wear and tear on the equipment. Conder had concerns about remembering to change to flow back. The lamprey task group would have to do a change form to make this permanent.*

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

- 3.3.1. **[October 19] Fish Count Program** – ACTION: Peery/Kovalchuk will send out the QAQC plan to the group. *Status: Peery checked with contracting and it is proprietary information. Each counter is checked once a month for an hour via video. The supervisor reviews the video and the counter has to be within 95%. Two counters have been let go because they were not able to meet these standards. The CORs then review some of the reviewed video as QA on the QC program. Morrill asked if the hour depends on the fish abundance but no, it is a random system. Lorz feels that some level of selection would help ensure that no species are missed. The structure of the QC plan needs to be tweaked and there is a meeting next*

month to look at this. Lorz asked for an outline of the work plan for FPAC. ACTION: Peery will send an outline to Lorz. Thompson asked if there is a training and testing before the season. Peery said that there is a training before the season but he would like to see a mid-season training to help with jack Chinook and sockeye differentiation. Bellerud asked about the longevity of the counters. Peery said that newer people tend to either leave in a couple of weeks or stay for many years. Peery is keeping track on the mean number of experience of the counters. Setter brought up river conditions and quality of the video for the QC/QA. The video review is new this year. If the video is clear then it is fine but if the video is cloudy or not set correctly then the video is worthless.

3.3.2.[October 19] BON LFS - ACTION: Hausmann will follow up with Schlenker on the hydrologic conditions of welding the hatch. Status: The project looked at the flume with the ROV. The latching mechanism is still there but the hinge is gone. They need to figure out who will pay for repairing the hatch. Schlenker is fine with closing the hatch but would prefer for the hatch to be bolted on not welded because it is painted steel. The point of the hatch was to access the flume but it has not been useful since it is underwater. Bettin suggested welding the bolt so it won't come off. Hausmann said the question is whether or not to spend money on something that doesn't function well. The cost is \$15K to fix it. Conder feels that with the amount of money spent on the flume, \$15k is worth fixing and seeing if it can work. Hausmann said that they were leaning that way because it would cost \$1.5 million to remove it. VanDyke suggested bolting the other hatches as well. Repairing the flume will require shutting down the fish units and all of PH2. Mackey suggested submitting a UFR to pay for it.

3.3.3.[October 19] TDA Spillway MRER - ACTION: Rerecich will follow up with Trachtenbarg about the status of the MRER and the cost benefit ratio. Status: There is no funding for this FY to finish the report but it is close to completion. The PDT has not generated the cost benefit ratio yet.

4. Updates

4.1. NWW

4.1.1. Upcoming maintenance/construction/research activities.

4.1.1.1. FPOM outages schedule (Setter) – There were no changes to the schedule this month.

4.1.1.2. LWG Spillway PIT Construction Schedule update [handout] – PSMFC did a full performance test. The test went as planned and the concrete will be poured over top of the antennas. The weather could potentially change the schedule for the pour. Since the spill test date will be determined from the pour date, Bettin requested updates.

ACTION: Hockersmith will keep Bettin updated on the schedule for the spill test.

Lorz asked when they can view the finished pour. Hockersmith said that there should be time before the coffer cell is removed on ~13 January to have a site visit. Van Dyke asked about the weather issues. Hockersmith said that rain will turn to ice and snow this week. The weather issues are more related to safety than concrete curing.

4.1.1.3. Staff gauges – Thompson said that there are staff gauges at IHR and LMN that need to be replaced. Setter doesn't receive the inspections from the outside agency inspection. Benner said that before the hacking of the website, the quarterly reports were posted to FPC. There had been a process in FPOM to identify the problematic gauges and have new gauges made at BON because they have a plasma cutter. BON still has the machine but the original person who did the gauges has left. BON's gauges are difficult to read. Conder likes the stainless steel gauges. Thompson would like a schedule for when the projects anticipate replacing the gauges. Next winter is the earliest they could go in. At IHR, they are very busy with winter maintenance. Setter will follow up with Hausmann.

- 4.1.1.4. MCN avian update – MCN has a laser test planned with both the lasers for next year. The test will be done when USDA is not present so that the laser data is not influenced by the boat hazing. Bettin asked if they are taking off the rest of the catwalk. There is no funding to take off any more of the walkway.

4.2. NWP

4.2.1. Upcoming maintenance/construction/research activities.

- 4.2.1.1. 19BON18 MOC CI Subsidence Project – The Bridge is being installed currently.
- 4.2.1.2. 19BON56 MOC PH2 OWS installation – The MOC had unit outages scheduled for the winter but since the units can come down in a rolling outage to tie into the system, the outages are no longer necessary. Bettin asked for the outages to be removed from the outage schedule. **ACTION: Hausmann will follow up on making sure that the outages have been removed from the outage schedule.**
- 4.2.1.3. 19BON62 MOC CI ladder dewatering for PIT work – PSMFC finished their work in a couple of hours. The ladder water was brought down to tailwater. There were not many fish. The antennas will be installed next year; this outage was for measuring. Bettin will add the new antennas to the BPA budget next year. He had been waiting to hear if BON had their part of the shared funding. Hausmann said that BON has their part ready. The old building will stay where it is and the old antennas in the ladder will remain in place. One antenna was removed because it was broken off.
- 4.2.1.4. 19BON64 MOC Early BI Ladder Orifice Flow – Orifice flow started on 30 November. The dewatering went well. Conder understands the situation but doesn't want the projects to get in the habit of going early. Conder asked why maintenance isn't allowed to work overtime. Funding is stricter and overtime isn't authorized for this winter. Setter explained that the O&M budget has been held flat but with inflation, it is essentially losing money. Hausmann said that the project has not been able to refill positions due to funding constraints. NOAA will start pushing back if funding starts shutting the window for fish passage. It is a small impact but they add up over time. This year with the small run the impacts are greater per fish. Hausmann said that if the situation happened again, they would still come back and make the same request because they don't want to lose a week of maintenance. BON would rather lose one day of passage than miss out on the maintenance activities. Lorz was annoyed that the lack of overtime funding is increasing impacts to fish. Conder has concerns about the CRFM items that are being moved to O&M without an increase in funds. Setter said the pressure that NOAA exerts may effect priorities within the Districts. Bellerud has concerns about removing screens in the system and believes that the Corps needs to find funding. Bettin asked if the investigation into screen replacement is moving forward. Setter said that there is a joint group lead by Division about the screens in NWW. **ACTION: Setter will follow up with Richard Turner about the investigation into screen replacement.** Replacing screens is O&M and a redesign is CRFM. This topic is for a different forum.
- 4.2.1.5. 19BON65 MOC MU18 and Fish Unit outage for OWS – The project is tying all the individual units to the OWS. Unit 18 and fish units were scheduled for this week. The MOC was rushed but in the end, the project did not have to have all three out at the same time. The units were completed in a rolling outage. The after action will state the actual outages that occurred. Both fish units were down on Monday for a couple of hours.
- 4.2.1.6. 15TDA08 MOC Transformer Installation – no update
- 4.2.1.7. 19TDA04 MOC Crane rail Replacement – no update
- 4.2.1.8. 19TDA18 MOC Fish Unit exciter work FUB – no update

- 4.2.1.9.** 19TDA19 MOC East/North Ladder dewater overlap – no update
- 4.2.2.**BON BI exit dredging – The UFR was not approved. Bettin asked if it will happen next year with the rock removal but the problem is that Bradford Island will be in service then. Mackey suggested the project look at local companies. The contract for rock removal will start in July and the project could piggy back on that operation. The exit really needs to be dredged this year. The project doesn't want to wait until next year and if the dredge occurs while the ladder is in service then it would fill with sediment. The budget submission for FY2022 will have to be increased. Hausmann asked if the UFR funding came through, can the project do the dredging in March. Lorz and Conder were okay with early March. The budget is currently 200k and the project will see if they can get at least the channel dredged. **ACTION: Mackey will follow up with BON next week to see where they are at with the dredging contract.**
- 4.2.3.**BON sluiceway end gate – A UFR for \$750K to fix the gate has been submitted but not approved yet. Conder might push this through the Bi Op.
- 4.2.4.**TDA AWS – A PDT meeting is scheduled to discuss the AWS additional run time. The contractor has the parts in hand and will install in late January. The flooding issue has been resolved but pumps are in place, in case. Bellerud asked if there was an alarm for flooding. **ACTION: Randall will follow up on if there is an alarm for flooding.**
- 4.2.5.****ADD TDA trunnion pin for next month.**
- 4.2.6.**JDA south turbine pump #3 – Maintenance is still planning on repairing this winter. The intake seals on all three bulkheads have been replaced.
- 4.2.7.**JDA north pumps – Maintenance is still working on 3 but not started on 4 yet.
- 4.2.8.**Dewatering activities
- 4.2.8.1.** BON – BI was dewatered and the process went smoothly. Project staff salvaged ~150 sturgeon. The project flushed the sturgeon on B-branch but there weren't many in A-branch. There were lots of lamprey in the rest boxes but it is difficult in getting the boxes to release to access the lamprey. Thompson is keeping the counts of fish salvage including both handled and morts for the incidental take. The fish numbers are listed in the annual reports.
- 4.2.8.2.** TDA – On 02 December, the ladder was dewatered to tailwater with very few fish. There were problems with pumps going below tailwater and the dewatering was delayed several days. There were low numbers of fish – 4 sturgeon (2 morts), couple dozen lamprey and a couple of steelhead. The fish were trapped in the ladder for a week but plenty of water. VanDyke asked if the sturgeon died because the pumps weren't working. Randall did not know why the sturgeon had died since there was plenty of water. The entrance pumps worked but several collection channel pumps weren't working. Bettin asked if the size of the pumps isn't enough. Randall said that if they are all functioning then it would be enough. Bellerud suggested having spares but Randall said the issue is the pumps they have need to function properly. **ACTION: Randall will make sure the PM on the pumps are being completed.** Mackey would like to discuss this at the next quarterly check in.
- 4.2.8.3.** JDA – On 05 December, the JBS went into winter mode. They found a couple hundred juvenile lamprey and a dozen salmonids. JDA-N was dewatered 03 December but had problems with the sill seal. The bulkhead was pulled and resealed. Only a couple of juvenile steelhead were salvaged. The entrance was dewatered on 10 December and the AWS the next day.

4.3. Research/FFDRWG updates.

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

- 4.3.1.**NWP FFDRWG- The next meeting is 06 February. B2FGE, JDA turbine and PIT final report will be discussed.

4.3.2.NWW FFDRWG –Next meeting is in January.

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	20	21	22	18(12/12)/22(12/21)
MCN	127	108	109	108(12/15)/118(12/12)
BON	125	118	120	117(12/19)/126(12/12)

Table 1. RCC flow forecast

4.5. BPA update – There are five scheduled outages and none should impact fish passage.

4.6. Fish Count Program – Lorz requests a list of improvements or changes for next year.

4.6.1.Request for video counts from Marine Insight – Mackey said that Wertheimer will forward an hour of video counts for Kovalchuk to post to the website. More than one hour was requested but it will have to be looked at with the constraints of the current fish count contract. Adding an hour of video for anyone to pull would make it accessible to anyone wanting to do this type of AI counting. Conder discussed AI with Whooshh who don't find the windows and water clear enough to count effectively. McClain said Idaho Power successfully developed software to apply to two species of fish. Lorz asked about the Pixel Heavy Industry group. No one is sure what happened to that group. Bettin has received similar industry requests. A protocol will be to have some video feed on the website for companies to pull the feed.

4.7. Pinniped update

4.7.1.BON – For the fall, FFU has observed a maximum of 53 sea lions on 12 November, a minimum of 19 on 11 December and an average of 39 over last 30 days. The numbers come from a morning point count. Conder explained that the new legislation has gone through to law but the permit process will still take until next year. For CSL, the same rules as last year will apply. If the permit process is completed in July then they could start earlier. Lorz asked if the process can be fast tracked. Conder said they have 2600 comments to read through and respond to. Bettin asked if the equipment is ready. Hausmann said there are a couple of CSL traps at BON. The design might work but the trap needs to be bigger.

4.7.2.Willamette Falls – no update

4.8. Lamprey update – This year, over 21K lamprey passed through the LPS at BON. Total estimated passage is now at 71,982 but it will be reduced by the wetted wall counts. The final counts are listed in the Annual Fish Passage Report (<http://pweb.crohms.org/tmt/documents/FPOM/2010/NWP%20Research/FFU%20reports/>) and usually on the FPC website. FPC will take time to get all the functions back to the website after the Ransom Ware attack. Most of the office data has been recovered but the website is going slow. The website is partially up. Conder suggested using additional wetted walls throughout the project near the entrances. Lorz said they do not have funding. McClain said there was an LPS ramp to a trap at PH2 NDE capture rate was so low it removed; the flow is too strong and the height is high. McClain finds that the wetted walls work better in area that the lamprey tend to get stuck. Hausmann explained that CI has an area below the spillway that was an old tribal collection site where lamprey congregate. It is a potential site to add a wetted wall/trap. This site would pull lamprey out of the tailwater. The UFR was accepted for the CI trap.

4.9. BON Whooshh scanner – Whooshh is looking for funding to keep the scanner in place. At this time, BON fully expects for the scanner to be removed before the start of the season. **ADD to the agenda for next month.**

5. **Invasive species discussion (Setter)** Morrill will provide the WDFW opinion on lethal removal for shad encountered during sampling activities. **The title of this agenda item was changed from shad to invasive species.** WDFW has ongoing internal discussion. There will be a meeting next week and Morrill will report back in January. Setter passed around a sticker from WDFW about the northern pike invasive asking the public to kill any that are caught. **ACTION: Van Dyke will check to see if the laws are same as WDFW on northern pike.**

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

- 6.1. **19DWR01 MOC Digital Exciter Testing** – Setter sent out the after action before the meeting. Many comments/concerns were received on the MOC. The contractor changed the amount of speed no load and the schedule just days before starting the testing. Setter said that it is not clear if the problem was speed no load or stop/start in the testing. This testing has suggested it may be the start/stop. Chatfield said that in terms of schedule, the time was chosen to avoid November. The contractor sent a general commissioning plan. It did not detail the amount of speed no load until the last minute. The testing was reduced from 2 weeks down to 5 days. Setter has a new speed no load schedule that will be written up in an MOC. It is hard to identify how much the depression air system helps but there has only been one mortality in the last two years. Conder asked if there was spill during the entire speed no load. Chatfield confirmed that the project spilled the whole time to attract fish. No fish mortalities were observed and only a few live fish were seen in the tailrace. Spill was at 1500 to 2000cfs. Setter didn't that the project spilled in the 2018 testing due to concerns about TDG. Conder questions drawing any conclusions that the problem is not speed no load because it can lead to a lack of mitigation strategies. He thinks these strategies are working and the project should continue with all the precautions on unit 1. Miller observed 15-20 steelhead on the first day then the numbers dropped off. The air depression works on all three units. The project tried to minimize the starts and stops; the contractor requested 5 but was only allowed to do 2. The operator also tried to catch the unit while it is slowing down but not fully stopped and then start it back up. The flow doesn't come to a full stop in this case. Conder wants all of these steps written down in an SOP for new operators. Lorz asked if the contractor is required to test equipment before the commissioning to make sure the equipment is all functioning properly. Setter said that previously some installed equipment wasn't working and there was a major delay in returning the unit to service. Chatfield said that one of the backup systems failed on the new equipment so there isn't a way of testing this beforehand. Baus asked about the success of the air depression system compared to spill for the next round of testing. Conder said that you can't use air depression during starts and stops which is why spill is necessary. Setter explained that the next MOC will use the same steps including spill as this time so they can continue to investigate. Unit 1 will be tested in January. After January, DWR should not have to do this kind of testing for several years. Yearly maintenance involves some testing but not commissioning testing. Setter said that a plan for a physical exclusion structure has started but there is no funding currently. Bettin said that the spill would be cheaper than the exclusion device.

- 6.2. **19LWG09 MFR Adult trap dewater**

- 6.3. **19LGS14 Navigation Lock Leak Repairs** – Completed but no after action yet.

- 6.4. **19IHR19 - AWS pump outage for ROV inspection of NEW-1 guide slots** – completed

- 6.5. **New IHR on floating guide wall** – Thompson had requested a map but it was hard to tell how far away from the adult entrance the work will be. Setter told the project team that the work needs to be completed by 03 April (start of spill) because they go down to MOP. Most fish would pass on the south ladder and the work is near the north ladder. The dates are 25Jan- 29 Feb. Bettin asked about a forebay restriction and if units need to be out of service. Setter doesn't think any units need to be out because the work is over by the spillway. The project requires divers so the spillway will be tagged out. Setter didn't think there would be any particular forebay level but they would want a consistent level for their work barge. Comments

are open until 23 December. Hockersmith explained that the dredging work will be in February when the ladder is out of service so no materials would go down the ladder. The cable work is in March but it is more than 100' away from the ladder. Lorz is tentatively okay but he may send comments next week.

6.6. 19MCN17 MOC Wasco PUD requests early WA shore ladder winter outage – no comments were received.

6.7. 19MCN18 MOC Change in control of ESBS brush operation – Comments are due on 16 December.

6.8. 19JDA19 MFR 24hrs early orifice flow at NFL – JDA did not coordinate the early orifice flow ahead of time. JDA-N has had a history with sturgeon and large numbers of fish so it is beneficial to go to orifice flow for 48hrs instead of 24hrs. Only three steelhead smolts were salvaged from the ladder. FPOM was very frustrated with the lack of coordination. . The ladder dewatering ended up delayed by a day since the bulkhead would not seal.

7. Fish Passage Plan: 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

7.3. Draft 2020 FPP Production Schedule:

7.3.1. Friday, 12/20/19: due date for FPP Change Forms and Appendix A submissions.

7.3.2. Friday, 12/27/19: all change forms and draft chapters/appendices will be posted online to allow at least 4 weeks for review;

7.3.3. Thursday, 1/23/20: annual FPOM meeting to finalize FPP change forms.

7.3.4. Friday, 2/14/20: drop dead due date for approved change forms and Appendix A submissions in order to be included in the print copy;

7.3.5. Sunday, 3/1/20: start date of 2020 FPP. Print copies will be shipped to Corps project and district staff by this date;

7.3.6. Thursday, 3/12/20: print copies for FPOM reps distributed at the meeting (unless otherwise arranged).

8. Task Group Updates.