

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 12 October 2017 FPOM meeting.

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

Last	First	Agency	Email
Barnes	Chuck	NWW	Charles.A.Barnes@usace.army.mil
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Wright	Lisa	NWD-RCC	Lisa.S.Wright@usace.army.mil
Zyndol	Miro	NWP	Miro.A.Zyndol@usace.army.mil

On the phone: Baus, Kiefer, Meyer, Morrill, Scott and Swank.

1. Final decisions made at this meeting.

1.1 September meeting minutes were approved.

1.2 LWG - FPOM concurred that the priority will switch to unit 4 until unit 3 is available; the RSW will be used until the flow is too low then the spill will switch to deep spill with a minimum of 2 stops. If the flow goes below 2 stops, then FPOM suggests intermittent spill to avoid fish going through the powerhouse or 1 stop deep spill.

1.3 FPOM members agreed with the content of the FPAC letter on the early startup of the juvenile by-pass systems.

1.4 17LMN12 Unit priority - FPOM concurred with the priority laid out in the MOC.

1.5 17LGS18 MOC Stilling basin survey – FPOM concurred with this action.

1.6 17BON68 MOC Non Routine PH2 November outage – This MOC was denied.

1.7 17TDA24 MOC Fish Unit Breaker Outage – FPOM concurred with this action.

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. *FPOM Outage Schedule (NWW)*
 - 2.3. *Lower Granite Dam JBS Upgrade and Operational Outages*
 - 2.4. *2017-2018 Winter maintenance schedule BON, TDA and JDA.*
 - 2.5. *Coordination Forms (MOC/MFR)(NWW/NWP)*
 - 2.6. *FPP Change Forms (NWW/NWP)*

3. **Action Items**
 - 3.1. **NWW**
 - 3.1.1. **[Sep 17] 17LWG22 NPE& NSE bulkhead closure** – ACTION: Setter will check to see if the work can start early. *Status: Still pending. The contract will be awarded around 1 November and Setter will update if the contractor can start early. The PDT and the PM would also like to see the contract start early so this will be pursued.*
 - 3.2. **NWP**
 - 3.2.1. **[Sep 17] BON MU17 OOS** - ACTION: Hausmann will write an MFR. *Status: Still pending and needs to be completed by Nov FPOM.*
 - 3.3. **Completed Action Items or to be discussed later in the agenda**
 - 3.3.1. **[Sep 17] LWG Spill Operations, implication for RSW maintenance** - ACTION: Holdren will write an MOC/MFR on the RSW inspection. *See 6.1.*
 - 3.3.2. **[Sep 17] Wrap-up and discussion on Court ordered early start-up of by-pass facilities** - ACTION: Zyndol will write an MFR detailing the increase in cost and his proposal for sampling by the end of the month. *See 5.0.*
 - 3.3.3. **[Sep 17] BON T11 outage** - ACTION: Hausmann will update the MOC. *See 4.2.1.1.*
 - 3.3.4. **[Aug 17] LWG spill mitigation for Sept- Dec** - NWW would like to know if there is a temperature trigger for RSW versus deep spill. ACTION: This topic will be brought to FPAC next week. *Status: The topic did go to FPAC and TMT. [Handout Sept 2017 Lower Granite Temperature] There was a brief RSW spill followed by spill from bays 6&8. On the TMT call, a decision was made to switch to bays 2 &3. The forebay is still warm from warm water coming down from the Hells Canyon complex. The deep spill was scheduled till 15 September unless FPOM chose to extend it. Even though the air temperature is cooler, the water temperature is affected by the sources of the water. Setter suggested using 1 October as a fixed date instead of a temperature trigger to start using the RSW but due to confusion with the RSW repair topic, this topic will be moved to TMT.*
 - 3.3.5. **[Aug 17] 17TDA20 MOC Oct start revised** - ACTION: Rerecich will update the MOC to reflect the request for spill for BPA to review. **Completed.**
 - 3.3.6. **[Aug 17] Next 5-year adult fish counting contract** - ACTION: Lorz will ask TAC about the importance of Coho unclipped/clipped counts. *Status: Pending. Lorz needs to follow up with his coworker. Email response from Lorz “As to the clipped non-clipped counting of Coho ta[l]king with TAC they are comfortable to only have counting at Bon, MCN and LWG. They are in the process of using more and more PIT data, at least in the upper reaches, specifically LWG, to evaluate the native, hatchery question. But they like the window count to aid in this as a back check and there is still some use epically at BON for lower river estimates. They did say that in a couple more seasons they might/likely will be able to just use BON but they need to insure the techniques they are using work.”*

3.3.7.[Aug 17] 17BON53 MFR WA SHORE SOC morts - ACTION: Lorz will talk to the lamprey task group about the size of the gap that would still be acceptable for the picket leads. Status: BON will change the gap size from 1.5" to 1.25" on the picket leads at WA SH if it is still a problem move to 1".

4. Updates

4.1. NWW

4.1.1. Upcoming maintenance/construction/research activities.

4.1.1.1. FPOM outages schedule [Handout] –

4.1.1.1.1. LWG – The Unit 1 RTS date has slipped again to 20 November. As the unit is put back together, new issues have arisen.

4.1.1.1.2. LMN - Unit 5 oil leak will be repaired by the end of February. Unit 5 will return as a Kaplan. Units 4, 5, and 6 will be available for the spring runoff. The work is being done by the project staff and is a blade seal repair. The repair work has been waiting for unwatering pumps that are being used for unit 1. A third unwatering pump was purchased to work on two units at once. A contractor is working on unit 1.

4.1.1.1.3. LGS – Unit 5 contract has been awarded. It will be out of service until July.

4.1.1.1.4. IHR trolley pipes – The trolley pipe installation is under discussion but will take place during the in water work period.

4.1.1.1.5. LWG Operation and Outages for JBS and Turbines (Hockersmith) [Handout] – Unit 1 RTS has been delayed by a month which impacts unit priority while unit 2 is out for annual maintenance. Maintenance is planned from Oct 23- Nov 15th so unit priority shifts to unit 3 during this time.

4.1.1.2. LWG – As of 10 October at 3:00pm, there is not enough flow to operate the RSW with unit 2. The flow forecast is predicting between 18-22Kcfs. There are a couple of options: continue with unit 2 as priority without spill or change the priority to units 3 or 4 and operate the RSW. The project would use unit 4 until unit 3 is available. There has been an increase number of juveniles over the last 7 to 10 days. If climate changes then could go back to unit 2. Wright clarified that Idaho Power operates Brownlee flows every year for fall chinook. Since this spill was for juvenile mitigation and not typical operation, this flow issue was not considered. Hevlin would prefer running the RSW over running a specific unit for adults. When the river is too low for minimum generation of unit 3 or 4 with the RSW, the project then has to go to deep spill. Lorz says go with unit 4 and then to unit 3 as available. Van Dyke agrees with Hevlin and wants to keep the pool for the RSW. Kiefer suggests looking at adult passage and then adjust if necessary. The minimum flow needed for unit 3/4 is 13Kcfs and 7Kcfs through RSW totaling 20Kcfs together. Kiefer asked if it was possible to open/close the RSW for several hours to pond water. There are a couple of issues that need pool regulation but Wright and Peterson will look into this. **ACTION: Wright will look at the ability to pond water to continue spilling RSW or 2 stop deep spill.** One additional option is to change priority to unit 3/4 and use deep spill with 2 stops per bay. Using the bay next to the RSW, 2 stops would be ~3Kcfs. ODFW prefers the deep spill over the powerhouse. **FPOM concurred that the priority will switch to unit 4 until unit 3 is available; the RSW will be used until the flow is too low then the spill will switch to deep spill with a minimum of 2 stops.** If the flow goes below 2 stops, then FPOM suggests intermittent spill to avoid fish going through the powerhouse or 1 stop deep spill.

4.2. NWP

4.2.1. Upcoming maintenance/construction/research activities.

- 4.2.1.1. BON T11 outage (17BON11) – T11 is back but unit 11 is still OOS. The rain showed a major leak dripping over unit 11. The contractor is expected to work over the weekend when no rain is forecasted. The concrete is laid but the joints are leaking.
- 4.2.1.2. Spillway Hydro-surveys (17BON49 & 17TDA21) – Surveys are completed. The results are still pending.
- 4.2.1.3. TDA Rail Removal (17TDA17) The project completed the section that was in the MOC. The overall project is still ongoing.
- 4.2.1.4. TDA AWS (17TDA20) – Three accelerometers were installed but the data transfer is not going well. Due to security requirements of the COE and the slow internet, it takes about 12 hours to send the data. PNNL can't process the data on the computer at TDA; it has to be done remotely. Currently, it requires most of the day to find out the results of the data so spill would only be a couple of hours or the project can wait till the next day to get a full day of spill. The work will vary so the level of vibration will not be consistent. Meyer suggests spilling first and then use the data to stop spill. At this point, the next turnaround is realistic for the data. PNNL is still trying to work this issue out.
- 4.2.1.5. TDA spill bays – There is a charter in place for a comprehensive study on all the spill ways for Portland District. Bays 9, 10 and 11 are listed as very important for fish. **ACTION: Cordie will get a cost estimate for repairing spill bay 9.**
- 4.2.1.6. TDA BRZ – Fishing too close to the east exit has been an ongoing problem. A certain fisherman discovered that the BRZ actually starts at the riprap and he is fishing in that legal location which is right next to the exit. The east fish ladder exit is under WDFW regulation since it is actually in Washington. The project wants to move the BRZ but the buoys need to be moved by the Coast Guard. Lorz will speak to TAC to see if they can apply more pressure to change the WDFW wording of the regulations and Morrill will also try to help.
- 4.2.2. Winter Maintenance Schedules – sent by email and on the website.
 - 4.2.2.1. BON (Hausmann)
 - 4.2.2.2. TDA (Cordie)
 - 4.2.2.3. JDA (Zyndol)
- 4.2.3. Research/FFDRWG updates.
 - <http://pweb.crohms.org/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>
 - 4.2.3.1. NWP FFDRWG – The next meeting is 7 December.
 - 4.2.3.2. NWW FFDRWG – The next meeting is schedule during the AFEP week of 26 November.

4.3. RCC update

Project	Previous day average (kcfs)	5 day forecast average (kcfs)	10 day forecast average (kcfs)	Projected Low/Peak (kcfs) and date.
LWG	17.7	19	23	19 (low) / 23 (peak)
MCN	94.5	70	89	70 (low) /89 (peak)
BON	101.1	78	98	78 (low) / 98 (peak)

Table 1. RCC flow forecast

4.4. BPA update – No update.

4.5. Fish Count Program – No update.

4.5.1. Next 5-year adult fish counting contract – The project is in the Sources Sought phase. Peery is still working out the details for the scope of work.

- 4.6. **Pinniped update** – Only Stellar sea lions are present currently and there are less than 20 animals. Twenty sea lions is the trigger for documenting salmonid predation events.
- 4.7. **Lamprey update** – The LFS is shut down but the LPSs are still operating. There were very high passage numbers using the LPSs and will be presented at AFEP. The draft reports on the orifice study will be available before AFEP for review.
- 4.8. **Avian update**
 - 4.8.1. **BON (Hausmann)** – The cork line for the corner collector wires went up. The other lines will be done before the spring.
 - 4.8.2. **TDA (Cordie)** – The spillway lines were installed by USDA. The east powerhouse lines were removed; the project will not be grounding them as previously reported. Gull numbers at TDA continue to climb and predation on smolts is increasing. Lorz feels that the wires and hazing are not enough. Miller Rocks where a lot of gulls nest are not owned by USACE and therefore USACE can't manage the population there. A task group on gulls will meet after the November meeting. There is already an inland island plan but the lack of authority is the issue.
 - 4.8.3. **JDA (Zyndol)** – The contract is on schedule.
 - 4.8.4. **MCN** – Gulls and cormorants are feeding along the same pattern as juvenile shad migrating. In 2017, MCN changed the hazing protocol and had an enhanced effort for hazing. This same effort is the plan for 2018. The project does not want more wires and can't maintain more wires. Lorz is looking for a system like TDA not the JDA system. A feasibility report will come out next year (2018) with alternatives for the predation control program. A revised agreement about hazing near pelicans has not been agreed to yet. Wires are permanent versus the hazers that sometimes are cut back. MCN has a resistance to wires due to maintenance concerns. The overall hazing effectiveness will be reviewed. The new pump system will provide better coverage of the outfall area. The hazing will be tested in 2018 before the new pump and then the new pump tested in 2019. Three more wires were installed at IHR.

5. **Wrap-up and discussion on Court ordered early start-up of by-pass facilities [Setter, Kovalchuk, and Mackey]** - The new FPAC letter was received and posted to the FPOM website. BON starts at this time anyways. JDA will have the 4 priority units screened and more as available. LGS will have the priority units screened. **FPOM members agreed with the content of the FPAC letter. ACTION: FPP change forms are needed for JDA and LGS for the installations of the screens.** Wright will work with the projects on the change forms. The planning will start for 2019.

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

- 6.1. **17LWG23 MFR Spillway gate seal** – Comments from regional fish managers had concerns that the project is not able to do the work until next year after the spill season. There is a potential interference with the PIT installation project. The project is trying to integrate this work into the PIT installation contract but the problem is funding. The window is open to add this to the contract. The seal needs to be done before the PIT installation because otherwise there is water running down. **Add to updates next month.**
- 6.2. **17LWG24 Spillway Baseline** – Based on the comments received, LWG will request an outage from 8am-4pm on 18 Oct. Any hours of spill that is lost will be made up by adding to the nighttime hours or early morning hours to meet the 12 hours of spill in 24 hours.
- 6.3. **17LWG 21 MOC**– Entrance gates have been repaired and are back operational.
- 6.4. **17LMN12 Unit priority** – This MOC is about unit priority after the RTS of unit 2 and it was requested to bring the discussion to FPOM. Because they haven't been fully dewatered, the oil leak issues on unit 2 and 3 are not known. Every two weeks, the project has to drain the hub of oil and water. The hope is that after unit 5 is RTS, a contractor can be hired to resolve the leak but this depends on funding. The leak on 3 appears to be smaller than 2. The plan is to go to unit

3 after unit 5 because it could come back to Kaplan faster than unit 2. Unit 2 will not be taken down until unit 1 is returned. Conder asked by email if it is possible to change the blade angle with the hydraulic lock. It is possible but it takes chance of losing the unit. If during the index testing, the unit is not within the 1% then the angle would be changed. **FPOM concurred with the priority laid out in the MOC.**

- 6.5. 17MCN17 Early ESBS removal** – Bellerud commented that the project should take the screens out of the units that are not running and if the project runs an unscreened unit than run the TSW for mitigation. Setter noted that the TSWs have already been removed and could not be reinstalled. BPA noted concerns with lost revenue with TSW operation.
- 6.6. 17JFT03 MFR Upstream release and secondary bypass operation** – The truck transportation was resumed on 22 September. The outage was 5-21 September.
- 6.7. 17LGS18 MOC Stilling basin survey** – The MOC closes on 25 October. The survey is more extensive due to the undercutting of the ladder. **FPOM concurred with this action.**
- 6.8. 17BON68 MOC Non Routine PH2 November outage** – WA SH entrance gate can't be opened more than 6' due to sand, sand is filling the diffusers and a dislodged LPS rest box has to be removed. Maintenance is requesting a week earlier than in the MOC. PH2 is still the priority unit. Derugin will find out why the priority is not switching. **The MOC is denied.** The MOC needs to be re-written with the correct dates and the impacts to fish expanded. Meyer asked if it possible to isolate the entrance. FPOM members wanted to know why the work cannot be done in the IWWP. Derugin said that BI is the ladder going down in this winter and the workload is too great. Other questions that FPOM members had include: what winter work has to be given up at BI in order to get the work done at WA SH during the IWWP, why can't the time be added to the end of November and what are the impacts to fish if no work is completed. Regional fish managers stressed that they do not want the work done in October.
- 6.9. 17BON69 MFR Cascade Island Bridge** – The SLEDs are still in place. The project can't drop bulkheads or have access to the valves/diffusers for maintenance. A PDT is set up looking at an interim fix or long term fix. FPOM wants to see the plan with details on length of time for the repairs. The project could make arrangements for a barge crane if needed. **ACTION: The MFR will be updated with more description, details of the plan forward and potential short term measures.** Photos are helpful.
- 6.10. 17TDA24 MOC Fish Unit Breaker Outage** – Project needs to know if there is asbestos in the breakers. The project is requesting two nights but is hoping to do one day. **FPOM concurred with this action.** If the breakers don't come on then the project would have to spill.

7. **Fish Passage Plan:** Change Forms are available online at: <http://pweb.crohms.org/tmt/documents/fpp/2017/changes/> (2017) and <http://pweb.crohms.org/tmt/documents/fpp/2018/changes/> (2018). Spill changes for the court order will go through the FOP. Typically only permanent changes should be in the project sections but temporary changes can be made and be removed the next year. The FPP should be as clear as possible for the operators to use. Wright suggests putting the changes in the project section to avoid confusion. Setter will discuss with project operators where they would like the changes.

7.1 Pending FPP Change Forms

7.1.1. 18DWR001 – New Project Section (Setter). *[Pending further coordination and development of draft.]*

7.2. New FPP Change Forms

7.2.1. 18LMN001 – Table LMN-11 Modification (Setter). Discussed at Sept FPOM. Patterns with one stop in bay 5 may be better if shifted to bay 7. Model at ERDC during trip Sept 18-22 if possible, then revisit at Oct FPOM. Status: The plan is to go to a uniform spill pattern across all flows. This modification was for an issue with the bulk pattern but the spill operations meeting will discuss this further.

8. **Task Group Updates.**

8.1. BON minimum spill to maintain good B2CC egress. (Fredricks and Lorz). Team: Bettin, Ebner, Hausmann, Kovalchuk, Rerecich, Wright. Pending until Ebner can coordinate the test. *Status: Ebner wants to schedule a meeting later this month.*