CENWP-OD 14 July 2017

MEMORANDUM FOR THE RECORD

Subject: DRAFT minutes for the 14 July 2017 FPOM meeting.

The meeting was held in the auditorium conference room at Bonneville Dam, OR. In attendance:

|  |  |  |  |
| --- | --- | --- | --- |
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On the phone: Barnes, Baus, Fredricks, Grosvenor, Johnson, Kiefer, Meyer, Morris, Scott, and Wright.

1. Decisions made at this meeting.
	1. June meeting minutes were approved.
	2. BON removal of PH1 diffusers - FPOM recommends running the HELCRABS model to validate which diffusers are needed.
	3. TDA Fish Lock Bulkheads – FPOM concurred with this action.
	4. Forebay Temp profiles – If temperatures can’t be taken for August then FPOM suggests waiting until next year.
	5. TDA avian lines - FPOM recommends monitoring the area with hazers and after a year, the project can decide if the grid needs to be replaced.
	6. Transport Program - FPOM suggested keeping the start date flexible.
	7. 17IHR13 MOC Turbine units 1&2 - NOAA suggests making unit 3 the priority if available otherwise unit 6 would become the priority. FPOM concurred with this action.
	8. 17TDA18 MOC Rail tailrace Nov nights – FPOM concurred with this action.
	9. 17TDA19 MOC AWS concrete dive – FPOM concurred with this action.
	10. 17TDA20 MOC AWS October Start - FPOM concurred with working nights in November and the last 10 days of November starting at noon but not in October.
	11. 17JDA005 Turbine Dewatering Gatewell Dipping – Approved.
	12. 17LGS007 Position of Operating Gates – Approved tentatively. Lorz will read and provide any comments by tomorrow (14 July).
	13. 18AppD001 – Cooling Water Strainer Inspections – Approved but Peery will add some additional language about increasing the frequency if needed.
2. **The following documents are provided or discussed at this meeting. All documents can be found at:** [**http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/**](http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/)
	1. *Agenda, Fish Passage O&M coordination team*
	2. *Cooling water strainer lamprey counts, NWW*
	3. *FPOM Outage Schedule (NWW)*
	4. *July-September 2017 Transmission Outages (BPA)*
	5. *FPOM Charter (NWW/NWP)*
	6. *Coordination Forms (MOC/MFR)(NWW/NWP)*
	7. *FPP Change Forms (NWW/NWP)*
3. **Action Items**
	1. **NWW**
		1. **[July 17] Next 5 year fish count contract -** ACTION: Peery will have a rough draft by August.
		2. **[May 17] 17IHR02 Powerhouse flooding at high tailwater -** ACTION: Peery will talk to Ken Fone to see if some of the AWS pumps can be turned off instead of all of them. ***Status: During high tail water, water floods the warehouse. Peery recommended using a bulkhead to block off the conduit and not using as many pumps. The project grouted the expansion cracks in the floor and believes this will fix the problem. An FPP change form will be drafted to change the language from turning off the AWS pumps during high tail water but it will have to wait to see if the fix worked or the transverse bulkhead should be used.***
	2. **NWP**
		1. **[July 17] BON adult fish in PH1 tail log slots** - ACTION: Kovalchuk will contact Tackley about using a hydro acoustic transducer to monitor the slots.
		2. **[July 17] TDA Pendants -** ACTION: Cordie will check to see if the pendants are in useable condition.
		3. **[Jun 17] BON Debris loading on the fish units -** ACTION: Hausmann will write an MOC. FPOM recommends raising all gates to 8’ rather than shut an entrance to maintain criteria and doing the work in the afternoon. ***Status: Never implemented because the debris is much less now.***
		4. **[Jun 17] 17BON11 MOC T11 Outage for B2 Roof Repair -** ACTION: Hausmann will ask about shifting the outage until September and provide an MOC. ***Status: An MOC was written but an additional six hour complete PH2 outage on 7 August from 10am -4 pm is planned. An update to the MOC will be sent out.***
		5. **[Jun 17] B2FGE** *-* ACTION: Rerecich will follow up to see if the B2CC outage could overlap with the complete PH2 outage. ***Status: B2CC barge will be removed after spill so no coordination is necessary.***
		6. **[May 17] 17BON10 MFR MU3 Juvenile salmonid morts -** ACTION: Hausmann will add the preventative measure to the unit dewatering plans. ***Status: Completed but need to send to Kovalchuk. Status: BON is updating other documents as well and will send them all to Kovalchuk.***
	3. **Completed Action Items or to be discussed later in the agenda**
		1. **[Jun 17] Court ordered early start-up of by-pass facilities -** ACTION: Next month Setter will update on NWW’s ability to perform this request for 2018. ***Status: Discussed under 4.1.2.***
		2. **[Jun 17] Court ordered early start-up of by-pass facilities** - ACTION: Lorz will take the issue to FPAC and do a small write-up that will then be shared to the FPOM group. ***Status: Discussed under 4.1.2.***
		3. **[May 17] 17LWG008 - U1, U2 Priority -** ACTION: Setter will follow up on the status of unit 2 returning to Kaplan for the next FPOM. ***Status: It is estimated to take 2 years to return to Kaplan. The unit is currently operating in the fixed blade position. It would take a week or two to change the angle of the blade.***
		4. **[May 17] Avian Update – BON -** ACTION: Hausmann will talk to USDA about hazing protocols. ***Status: Hausmann discussed this issue with the USDA supervisor. Their policy is haze either species. The particular employee may be new and not trained in all aspects of the job.***
		5. **[May 17] TDA picketed leads -** ACTION: Cordie will review the language in the FPP and decide if a change form is needed. ***Status: Completed, no change form is required.***
		6. **[May 17] 17JDA07 MFR MU12 Juvenile salmonid morts -** ACTION: Zyndol will update the MFR with more details and timeline. ***Status: Completed.***
		7. **[Jun 17] BON adult fish in tail log slots**- ACTION: Hausmann will coordinate with BPA and the operators so that if a unit will be turned off then they can choose one that has fish in it. ***Status: see agenda item 3.2.3***
		8. **[Jun17] Court ordered early start-up of by-pass facilities -** ACTION: JDA will provide cost estimates and any issues that may affect their ability to get screens in by March 1 for the next FPOM. ***Status: see agenda item 3.2.4***
		9. **[May 17] 17JDA07 MFR MU12 Juvenile salmonid morts -** ACTION: Zyndol will make changes to the dewatering procedure based on the discussion. ***Status: Completed. Zyndol will send to Kovalchuk for posting and dissemination to the group.***
		10. **[May 17] 17JDA06 MOC JDA-Spill bay 20\_Restriction -** ACTION: Cordie will check on the pendants used at TDA to see if they could be used at JDA. ***Status: Cordie found the pendants and sent the information to JDA but it is unclear if they would work. ACTION: Cordie and Zyndol will follow up on if they are in useable condition and if they could even be used in the spill gate slots. Status: see agenda item 3.2.5***
4. **Updates**
	1. **NWW**
		1. Upcoming maintenance/construction/research activities.
			1. FPOM outages schedule – DWR unit 3 is slightly delayed until the end of June 2018. LMN unit 1 has slipped to the end of February 2018. LGS added unit 5 repairs and is expected to occur December – February. MCN JCC repair added an additional month.
		2. Court ordered early start-up of by-pass facilities [Van Dyke, Hesse, Lorz] - Hesse brought a draft Memo to FPAC on 27 June. The COE had been expecting this document to be shared with FPOM for today’s meeting but it had not. At MCN, a contractor is modifying the screen cleaners and no water can go through the by-pass system until this contractor is finished. The project has requested that the contractor start a month earlier but it is unknown if the contractor has this availability. Swank said that the expectation for 2018 is MCN starting in April not March. Another major concern for the COE is the fish monitoring aspect. Money is needed to modify the current biological services contract, the permit issue will have to be addressed and staff will have to be brought on early. Conder said that the draft Memo recommends daily monitoring by SMP. Grosvenor reported that due to the STS crane problem, JDA had to reduce the maintenance period to three months last winter. The man hours associated with this increased costs by 25%. There is also a concern about the time of year with valves freezing. Bettin brought up the possibility of running some units with screens and others without. Setter asked if screens go in early, could they come out early to gain maintenance time but Fredricks said that the screens are in later in the season for adult fallbacks. RPA 53 requires monitoring while the by-pass systems are running. The research component has not been explained yet. It is unclear what evaluation will be done and what data is being collected. The COE is requesting the White paper and additional information on the evaluation. This will be discussed again next month.
		3. Debris – Due to the weather events, the forebays have started clearing of debris and are getting past the critical risk period. The MCN TSWs came out after the MOC.
		4. MCN FP2 (Johnson, Peery) – After the maintenance was finished on F2, the project pulled out intake stop logs and then found problems with the pump. The discharge stop logs were removed and the blades are fixed in the closed position. The stop logs can’t be put back in due to structural complications with the I-bolts. These are the only stop logs for the fish pumps. The ladder is holding criteria. During the testing of the pump, an oil leak was found in the governor system. If the testing doesn’t pan out, the contractor may need to come back. FPOM will be updated next month.
	2. **NWP**
		1. Upcoming maintenance/construction/research activities.
			1. BON orifice rehab (17BON12) – Rerecich met with Royer and Bissell to evaluate the addition of air to the end of the B2 Orifice flush cycle. Although it helped somewhat, they decided that it would not be worth pursuing funding and the modifications to the PLC. This will be discussed in further detail at FFDRWG.
			2. BON B-branch survey and spillway survey – The expected date is September 26. An MOC will be sent out soon.
			3. BON removal of PH1 diffusers – BON wants to maintain the diffusers that are open and remove the ones that are always closed/broken along the collection channel. It would take a significant amount of maintenance to get the broken diffusers back to useable condition. The benefits would include less chance of leaking oil and the possibility of salvaging spare parts. They were put in for use in high tail water and most likely will not be used. **FPOM recommends running the HELCRABS model to validate which diffusers are needed**.
			4. BON roof repair – Discussed under 3.2.2.
			5. B2FGE equipment repair (17BON26) – The B2CC was closed on 29 June from 0620 – 0840. The hydro-acoustic transducer was successfully repositioned and is now collecting data.
			6. TDA Rail Removal (17TDA17) – Last year, weather created a lot of issues. All units except 22 were saw cut. The MOC coordinated night work in November. No comments were received in the open period.
			7. TDA Hydro-survey – The date is scheduled for September 27.
			8. TDA Fish Lock Bulkheads – The bulkheads are steel which leak and the water can over top which causes attraction water in the cul-de-sac. The project wants to pour solid concrete and tie it into the AWS contract. **FPOM concurred with this action.**
		2. Forebay Temp profiles (Lundell) – **If temperatures can’t be taken for August then FPOM suggests waiting until next year.**
		3. BON adult fish in PH1 tail log slots. – The next step is to block the light at the highest priority units. The access is difficult so this will take a while. The project rerouted chiller water to an operating unit but has a plan to reroute the water away from the units. The discharge water was 80°. It was not possible to add an air stone; no pollutants were found in the discharge water. FPOM members stressed that they do not want adults entering the area and the COE needs to find a solution. There are questions about how many fish are in the slots because it is very difficult. ACTION: Kovalchuk will contact Tackley about using a hydro acoustic transducer to monitor the slots.
		4. JDA SMF Court ordered early start up – Discussed under 4.1.2.
		5. JDA Spill bay 20 – use of TDA pendants. – Zyndol explained in an email that it would cost too much money to fund an engineer to look into the possibility of using these at JDA. The pendants were designed to hold open the gates in a flood situation in bays where the wires had failed. The pendants may not be useable due to rust and sitting in the boneyard for 21 years. Since the project still hasn’t fixed the wire ropes, the pendants remain as a back-up. ACTION: Cordie will check to see if the pendants are in useable condition.
	3. **Research/FFDRWG updates.** [**www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/NWP%20Research/Research.html**](http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/NWP%20Research/Research.html)
		1. **NWP FFDRWG –** Thenext meeting is scheduled for 03 August but that coincides with the ERDC trip. The JDA PIT antenna is on schedule for completion by the end of September. The LPS minor mods at BI contract went out for solicitation and will be completed in the next IWW period. The team is still designing the adult lamprey trap for the AFF which should be ready for use next year. It will be built by the project and is funded by CRFM. The tribal lamprey trapping and translocation program is long term. The goal or target of number of fish is changing until more information on the success of the project is known. The collection number has increased dramatically which is based on the number of fishreturning.
		2. **NWW FFDRWG –** The next meetingis scheduled for24 August.
	4. **RCC update**

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| **Project** | **Previous day average (kcfs)** | **5 day forecast average (kcfs)** | **10 day forecast average (kcfs)** | **Projected Low/Peak (kcfs) and date.** |
| **LWG** | 51 | 46 | 44 | 7/13 50 |
| **MCN** | 206 | 186 | 172 | 7/13 196 |
| **BON** | 182 | 192 | 178 | 7/13 202 |

**Table 1. RCC flow forecast**

* 1. **BPA update – [Handout]** Theroof repair PH2 outage was already mentioned. BPA is rebuilding the 115 line between BON and TDA. The team working on this found an alternative solution to requiring a PH1 unit to run from July –November for the next four years. The IHR disconnect work has been canceled.
	2. **Fish Count Program –** No updates.
	3. **Next 5-year adult fish counting contract –** Comments from regional partners were received. Peery met with Setter, FFU and Mackey last week. They decided to go with a joint contract of fish counting and data collection including all hardware/software. FPC will still remain the main distributor of the fish counts. Due to the security processes of the COE, the collection and distribution of the data has to be independent of the COE. FPOM would like the data published early in the morning but still have quality control. Night passage data still has many holes that should be addressed in the next contract. All comments need to be vetted first for costs. ACTION: Peery will have a rough draft by August.
	4. **Transport Program (Hockersmith) –** The current contract for barging expires this year. NWW is looking for additional comments from FPOM. Hockersmith sent the current contract to Marsh and Wagner. It was not submitted to FPAC. Lorz brought up a question of transporting fall Chinook after August 1st. Even though this is a question for this year, it may affect the future. The COE is following the transportation guidelines in FPP this year. FPAC will be discussing the transportation program at their next meeting. **FPOM suggested keeping the start date flexible.**
	5. **Pinniped update –** The pinniped season is over and work on the report has started. This year, the report will include stock specific predation rates. All California sea lions have left the area but one Stellar was observed using game cameras. For the last two years, sea lions have been present for 10-11 months a year in the BON tailrace. There will be some monitoring this fall and winter with a skeleton crew. Bettin inquired about any protocol for removing a sea lion from a barge going upstream but allowing a sea lion to pass downstream. Tidwell was not familiar with any barge protocol. The NOAA 2008 BiOp was written specifically for California sea lions but in 2014 the Supplemental section was rewritten for any pinniped. NOAA has sent a formal letter to the COE requesting abundance monitoring and consumption estimates in September and October to get a better understanding of their impact. This year, 14 Stellars were branded.
	6. **Lamprey update –** TheLPSs are all operating with lots of lamprey moving through. The LFS is only moving one or two fish a day. Due to air bubble problems, the out flow was below what it was designed for which provided minimal attraction. The air bubble problem has been addressed and the outflow will be increased. Fredricks, Walker and project staff will increase the flow and observe the air bubble conditions on 14 June. FFU does regular inspections of all the rest boxes. The Orifice Study reported no injuries to salmonids or lamprey as a result of the orifice installation. The video monitoring showed 42 sockeye approaches to all three orifices (~2%) and 27 interactions. The criteria for an approach is turning sideways in the current moving towards the orifice and breaking the plane of the orifice is considered an interaction. Some of those could be the same fish moving in and out of view. The orifice is 1 ½” which is not large enough for salmon to enter. For lamprey, ~8,000 were recorded moving upstream and 4,500 downstream. Comparing to the count station window, two to three times the number of lamprey are using the orifice. Only three orifices have been installed currently; it does not go all the way through the serpentine section. The Lamprey Task Group will make a recommendation after the study is complete. Two more data collection dates remain for the study and FFU is trying to keep up with the video. Refuge boxes were part of minor mods but not part of the evaluation.
	7. **Avian update**
		1. **BON (Hausmann) –** There aremore gulls than typical on the spillway below the B2CC but the hazers are still active. No date has been planned for installing the wires and it could possibly occur during the tail race survey.
		2. **TDA (Cordie) –** Gull numbers are low and pelicans are present. The spillway lines will be installed in September. The powerhouse grid has electrical arc issues. The eastside of the powerhouse grid can’t be grounded without drilling into the basalt and insulating the wires. The lines from unit 10 -20 will need to come out. **FPOM recommends monitoring the area with hazers and after a year, the project can decide if the grid needs to be replaced.**
		3. **JDA (Zyndol) –** Because of thehigh flows, there have not been many gulls but pelican numbers have increased.
		4. **MCN - Pelican hazing (Peery, Johnson) –** A pelicans was found in the Oregon fish ladder. In the past, the pelicans have swum out but this one had to be removed. The cannon is functional. Boat hazing concluded on 8 July. Morrill passed on a statement from the APHIS regional director that overall abundance of avian predators is less this year. The discussions between WDFW, NWW and APHIS is still ongoing and no determination of how close a pelican can be to a hazed gull. FPOM wants this issue resolved before the next season.
1. **FPOM Charter Review –** Comments were received from Fredricks and Morrill. FPOM members will get one more month to make comments. The process for coordination at the meeting should follow the same as the process of the MOC. The document is very dated and can’t be referenced. There are instances when coordination happens at an FPOM meeting. If a regional partner is absent from the meeting, a back-up should be sent or their right to comment is forfeited but no comment should not be considered approval.
2. **Coordination/Notification forms (need concurrence/discussion)**
	1. **17LWG09-13 MFR Emergency Debris Spill –** There werefive emergency spills. One of these was to remove some large logs which may have damaged the gate seals. The RSW is now closed.The project wants todo therepair in October to cure before freezing temperatures. LWG spills for mitigation in October. Next month, the project will give an update on the seals.
	2. **17LGS10 MFR Emergency Debris Spill**
	3. **17LGS11 MFR Primary By-pass –** The project went into by-pass toclean debris out of the separator.
	4. **17LGS12 MOC TSW Crest Height –** LGS will be removing the TSW on 19 July.
	5. **17LMN06 MFR Emergency Debris Spill**
	6. **17IHR07 MFR South Shore AWS pumps outage –** This was a three hour pump outage.
	7. **17IHR08&09 MFR Emergency Spill Debris**
	8. **17IHR10 MFR Fish mortalities from plugged orifices –** Operators are supposed to check the orifices when the biologists are not present. The project added a log book to record when checked and the frequency of inspections has been increased.
	9. **17IHR12 MOC Surge Arrestor**
	10. **17IHR13 MOC Turbine units 1&2 –** The project is going to make some upgrades to the powerhouse in 2018. Before they can do the work, the project has to install a cut gap between turbines 1 and 2 which will allow them to repair turbine1 while running turbine 2 and vice versa. A 10 day outage is required. The coordination has to be done now in order to get the contract out in time. Unit 6 would become the priority unit. This outage couldn’t be piggy backed with the Doble testing. NOAA suggests making unit 3 the priority if available otherwise unit 6 would become the priority. **FPOM concurred with this action.**
	11. **17MCN06 MOC Fish pump 2 testing –** Discussed under 4.1.4.
	12. **17MCN08 MFR Unit Priority Change**– Unit 2 was a low priority unit anyway but now it is last on/first off. There will be an after action update.
	13. **17MCN09 MFR Emergency debris spill**
	14. **17MCN11 MFR Delay in TSW closure**
	15. **17MCN12 MFR Emergency Debris** **Spill**
	16. **17TDA18 MOC Rail tailrace Nov nights – FPOM concurred with this action.**
	17. **17TDA19 MOC AWS concrete dive –** The dive is no longer scheduled during the ROV because of personnel issues. The dive will take place on 7 August with no changes to the operations. **FPOM concurred with this action.**
	18. **17TDA20 MOC AWS October Start –** Due delays caused by the weather problems last year, the project is proposing starting in October for night work, November nights and daytime work the last two weeks of November. There are three areas for working. Area 1 is on the forebay side and with eddy recirculation, the water comes right down to the east fish ladder exit. Area 3 and 4 are near the east entrance. Fredricks is very concerned about working in October right under the ladder. **FPOM concurred with working nights in November and the last 10 days of November starting at noon but not in October**.
	19. **17BON16 MFR WA AWS LPS MODS**
	20. **17BON17 MFR Mortalities in PH1 tail log slots**
	21. **17BON18/19 MFR PL morts**
	22. **17BON20 MOC T11 Outage for B2 Roof Repair**
	23. **17BON21 MFR AFF SOC mort**
	24. **17BON22-25 MFR PL morts**
	25. **17BON26 MOC B2CC closure for B2FGE repair**
	26. **17BON27 MFR unit 6 priority –** Thesluicegate has not been changed and now there is need since PH1 is off.
	27. **17BON28-30 MFR PL Morts**
	28. **17BON31 MFR AFF SOC mort**
	29. **17BON32-47 MFR PL morts**
3. **Fish Passage Plan:** The Current 2017 FPP and Change Forms are online at <http://www.nwd-wc.usace.army.mil/tmt/documents/fpp/2017/>.

**6.1** Pending FPP Change Forms.

* + 1. 17JDA005 - Turbine Dewatering Gatewell Dipping. Revised 5/18 per FPOM feedback. **Approved.**
		2. 17LWG008 – U1, U2 Priority. Revised 5/18 per FPOM feedback. Will be discussed at July FPOM after U2 index testing is completed. Setter needs to check with the project to see if the chart of the test results came in. Pending until August.
		3. 17OVE003 – FPOM Coordination. (Mackey) Pending until August.
		4. 17DWR001 – New Project Section. (Setter) Pending until August.
	1. New FPP Change Forms
		1. 17LGS007 – Position of Operating Gates – **Approved tentatively. Lorz will read and provide any comments tomorrow (7/14/17).**
		2. 18AppD001 – Cooling Water Strainer Inspections – **Approved but Peery will add some additional language about increasing the frequency if needed.**
1. **Task Group Updates.**
	1. BON minimum spill to maintain good B2CC egress. (Fredricks and Lorz). Team: Bettin, Ebner, Hausmann, Kovalchuk, Rerecich, Wright. A task group meeting will be scheduled after the next meeting to discuss the results of the ERDC trip.