

MEMORANDUM FOR THE RECORD

Subject: Minutes for the 12 January 2017 FPOM meeting.

The meeting was held on the phone. In attendance:

Last	First	Agency	Email
Bailey	John	NWW	john.c.bailey@usace.army.mil
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1. Decisions made at this meeting:

1.1. December meeting minutes were approved.

1.2. Coordination/Notification forms (MOC & MFR)

1.2.1.16 DWK 01 MFR Fish loss in tailrace – FPOM members concurred with the plan for digital governor upgrade procedures and requested the presence of several additional biologists to observe the tailrace.

1.2.2.17MCN01 Trash Raking – FPOM members concurred with this action.

1.2.3.17TDA01 MOC Railroad Rail Removal – FPOM member's concurrence is pending an updated MOC with the following recommendations that a sluiceway on the east stays open,

the work occurs during the daytime, preferably in April and details of the actual work to be performed.

1.2.4.17TDA02 AWS March Day Work – Pending. Members need more time to review the MOC.

1.2.5.17TDA03 MOC TDA-N Winter Outage Extension – FPOM concurred with this action.

1.2.6.16BON122 MOC WA SH crowder mods for lamprey – FPOM members concurred with this action.

1.3. FPP Change forms: The change forms will be discussed at the January 26 Fish Passage Plan meeting.

1.3.1.17BON005 – Oil Spill Response - Approved adding a clause to notify NOAA of closing the ladder within 24 hours.

2. The following items were provided or discussed. Documents may be found at: <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/>.

2.1. *Agenda, Fish Passage O&M Coordination Team.*

2.2. *Cooling Water Strainers Lamprey Counts.xls.*

2.3. *Coordination/Notification Forms (NWW/NWP)*

2.4. *FPP change forms. (NWW/NWP)*

3. Action Items

3.1. NWW

3.1.1.[Dec 16] MCN- Johnson will send out a memo on the condition of the grating of the Washington Shore fish ladder to FPOM members. *Status: The project hasn't been able to pump out the water due to weather. Pending.*

3.2. NWP

3.2.1.[Jan 17] **BON Staff Gauges** Action: Hausmann works with Kovalchuk about price, design and coordinate a dive crew to clean in the winter to standardize staff gauges.

3.2.2.[Jan 17] **16BON122 MOC WA SH crowder mods for lamprey** Action: TDA will write an MOC on the crowder mods also.

3.2.3. [Nov 16] **BON split flows** Action: Fredricks will send out his draft FPP change form. Pending from last month. *Status: After reviewing the data from the last 3 years of split flow, there was no significant response from fish in '14 and '15 unlike '16. Other factors may have contributed to the response in 2016. Fredricks was going to withdraw but has decided to take a second look. Hausmann will work with Fredricks to find a solution where the project uses its discretion when to moving to split flows.*

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

3.3.1.[Dec 16] **16 MCN 018 MFR Side dewatering brush** - Johnson will send out more pictures of the side brush. *Status: Completed*

3.3.2. [Nov 16] **MOCs fish impact analysis** Action: Fredricks will draft an FPP change form with the minimum criteria for the fish impact section. *Status: Completed*

3.3.3.[Nov16] **BON SLEDS (Fredricks) ACTION:** A meeting will be scheduled to discuss this topic. *Status: Completed*

4. Updates

4.1. NWW

4.1.1.Upcoming maintenance/construction/research activities.

4.1.1.1. FPOM Outages [Handout] - Setter reviewed the changes since the last meeting.

4.1.1.1.1. DWR – Unit 3 overhaul RTS delayed to July

4.1.1.1.2. LMN – Unit 1 RTS was scheduled for the end of June but has slipped to mid-August. Mid –August is considered uncertain and could possibly slip further.

- 4.1.1.1.3. IHR – Unit 5 is still scheduled for the end of Feb but there is the potential for a little longer due to labor issues. Conder requested photos of the progress due to weather related travel restrictions.
- 4.1.1.1.4. LWG - Unit 1 delayed from the end of March until mid-April.
- 4.1.1.1.5. LWG – The project will write an MOC for commissioning.
- 4.1.2.PUD turbine (16MCN016) – Martinson updated his MOC with the current dates. The contractor needs three days to install the equipment so the actual testing won't start until the 9th instead of 6th. The Oregon shore ladder will be out of service and the testing is expected to take seven days. Although the north ladder would be in service, it would be temporarily out of criteria creating a concurrent outage. Johnson said the ladder can go into bypass and stay in criteria. Fredricks did not receive the MOC and needs more time to review but will rely on Johnson's input.
- 4.1.3.IHR staff gauges – Fone talked with the Chief of Ops about a path forward. Everyone is used to staff gauges but it may not be the best solution. Conder doesn't want the project to rely on PLCs and feels that actual staff gauges are very important. FPOM members requested a standard design that would hold up in the turbulence and stay clean longer across all projects.

4.2. NWP

4.2.1.Upcoming maintenance/construction/research activities.

- 4.2.1.1. BON FGE Mods. – On-going. Research equipment will be installed in March. Priority units will be done first.
- 4.2.1.2. BON staff gauges – The project has some newer stainless steel staff gauges that hold up well in the turbulence but requires divers to clean. If every project invested in these staff gauges then a dive team could be hired to hit every project during the winter maintenance. The staff gauges blend in with the concrete but doesn't grow algae as fast and can withstand the turbulence. BON has purchased all the staff gauges that they need and now need to install them. **ACTION: Hausmann works with Kovalchuk about price, design and coordinate a dive crew to clean in the winter to standardize staff gauges.**
- 4.2.1.3. BON PIT TAG room – BON fisheries did a WO for a cost estimate about updating the room and will send out information.
- 4.2.1.4. BON B-Branch erosion (16BON107) – The contractor is currently on site. The schedule was slightly delayed due to weather. The avian lines will still be up before the start of the season. There is a spill test this weekend lasting about 2 hours and will spill up to 50k.
- 4.2.1.5. TDA AWS Construction (16TDA10) – The beams have not been completely removed - just enough for their equipment to fit. They need to come back and drill the rest of the beams. The schedule is behind and there is concern about not hitting the construction milestones. The project may not be able to stay in the two in-water work periods.
- 4.2.2.BON FOG Bulkheads – CRFM will pay for half of the bulkheads from funds for this FY. A meeting has been set up at BON with project personnel on January 18th.
- 4.2.3.JDA STSs and STS crane failure – All repairs have been completed but the load test needs to be completed before the crane can return to service. The project will start removing the screens as soon as possible with the damaged screens first. Bettin said that right now all units are required for energy production and need a coordinated outage when the screens come out. The project will check to see if running the damaged screens caused any additional damage. Zyndol will give an update at the next meeting. Crews will be forced to cram the winter maintenance into a much shorter period. All spare parts are available.
Email Update from Pat Hunter: *The contractor reported the STS Hoist control was not functioning. They have ordered a drive and power supply from Wisconsin. No ETA at this*

time but will provide as soon as available. At this time we plan to resume work as soon as the parts arrive. This could require working through Sunday and on the Holiday. The first day will be installing the replacement parts and no load functional tests. The second day will be loads tests. I will update the work schedule when we learn the arrival time for the parts. Patrick J. Hunter, P.E. Chief, Engineering and Contracts Section.

4.2.4. Winter dewatering activities

4.2.4.1. BON WA SH maintenance – Fish valve 6-9 have been pulled out for rehab. Some of the collection channel grating is being replaced. Two B-valves have been replaced for a total of three completed. The C valves are in bad shape and the project may have to rehab incrementally. The project will order new C valves and swap out during the maintenance period. The lamprey ramps are complete in the lower section.

4.2.4.2. TDA-N dewatering – The top half of the ladder was dewatered on Jan 4 but due to weather have not dewatered to the tailwater/entrance area. The project needs a couple day extension on the coordinated outage to check grating and water up on the 19th. Fredricks concurred with the extension. N1 will be pulled out for rehab and a spare from the south will go in its place. On the east ladder, west entrance weir (W1) has separated leafs and will be rehabbed. East exit weirs 154 & 159 gear boxes are being rehabbed for oil leak issues. The east count station window brush has been replaced. A stiff brush was installed on the bottom of the crowder to prevent lamprey from entering.

4.2.4.3. JDA-N dewatering – The north ladder has been dewatered since December. The PIT antenna on the north ladder was completed 1/12. The ladder will return to service on Jan 17th. The south ladder will be dewatered on the 23rd. The contractor doesn't need additional time so there won't be a dual outage.

4.3. Research/FFDRWG updates. www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/NWP%20Research/Research.html

- 4.3.1.NWP FFDRWG** – Next meeting on Feb 2nd
- 4.3.2.NWW FFDRWG** – Next meeting on Feb 23rd

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	32	26	26	31 on 1/19
MCN	175	167	173	178 on 1/19
BON	184	195	177	201 on 1/20

Table 1. RCC flow forecast

4.5. BPA update – no update

4.6. Pinniped update – Currently, FFU is hiring for upcoming season, starting predation estimates for the year and undergoing a Section 120 review with the states. The final report comments are due on 1/13.

4.7. Lamprey update – An orifice study is planned at Washington Shore for this year. Trap and haul is scheduled at BON and JDA.

4.7.1.JDA-N lamprey mods –The submersible pump for the water supply for the LPS is troublesome but nothing conclusive.

4.8. Avian update

4.8.1.TDA (Cordie) – Wire replacement contact and avian hazing still moving forward.

4.8.2.JDA (Zyndol) – Avian line replacement is still pending; Zyndol was not sure if the contract was awarded. Update: Knight Construction was awarded the contract.

4.8.3.MCN – The pump for the water cannon is being rebuilt and should be done before the season starts on April 1. The Avian Workshop is being rescheduled due to weather. Walla Walla has made several key updates to the avian hazing plan and will be presented at the Avian Workshop meeting.

5. Coordination/Notification forms (need concurrence/discussion)

- 5.1. 16 DWK 01 MFR Fish loss in tailrace** – The MFR said that the manual governors ramp up time was slower than the digital governors but this is not true. The MFR will be updated with this correction and a typo. Setter addressed the comments from NOAA and worked with engineers to get testing plan. Setter would like approval for a testing plan for the FPP before the contractor (American Governor) starts on Unit 1. There was a request for a late Jan/early Feb time frame for the next unit from Conder. The new plan has several changes to the commissioning steps. The rolling stops and starts and long periods of speed no load most likely caused the problems. The new procedure will have less of those plus the use of the air depression system during stops/starts. STHD behavior can't be controlled but can try to manipulate the flow. In this case, the project can't use the flow from unit 2 to manipulate flow because it is out of service. Conder said that the reduction in start/stop and speed no load is a big improvement. It is good to have biologists on site to observe. Conder still has concern about the reliance on the air gap depression because it can't be ruled out as a problem. The project needs to be very observant with the air gap depression system and Setter confirmed that they will. The project believes the air gap depression system is functioning as it should. Keifer said that it is a reasonable plan and stressed that biologists need to watch for fish swimming up into the unit. Language should be added to the FPP change form specific to observing fish swimming into the unit before the problem happened so that future biologists will be aware of that situation. The tailrace is very turbulent and biologists will be spread out to get best view. Morrill brought up using the anglers to help make observations but there are several issues with using anglers. The project will ask for help from other biologists in the region including some tribes to make observations. Time of year makes a big difference. Holdren will go early to make observations ahead of time. **FPOM concurred with the new procedures of commissioning testing with using additional observers.**
- 5.2. 16LWG13 MOC Protection Bulkhead Removal-** Diffuser 14 was removed from service at 0730-1830 hours on December 13 for reinforcement bulkhead removal.
- 5.3. 16MCN19 MFR – Unit 13 Sturgeon Losses** – There were 4 sturgeon morts and marks suggested they were pinned on grating during the dewatering. There were several agency comments questioning the aggressiveness of the dewatering procedure. Johnson provided a document describing the unit dewatering process and noted that the sturgeon were emaciated. It is unclear how long the sturgeon were dead and why they were so thin.
- 5.4. 16IHR12MOC – Unit 2 dive work** – All south shore pumps were out of service on December 21 from 1200 hours to 1540 for the dive work. The request for the noon outage was implemented. Divers were unsuccessful in reducing the leakage into unit 2 draft tube. Unit 2 is still out of service and tarps were put down on the inside to stop leakage so that the work could continue.
- 5.5. 16LWG14 MFR Oil Spill** – There was an oil sheen in tailrace on Dec 19th. Though oil from roadway decks were contributing factors, it was determined that unit 2 blade packing failure was the main cause of the oil. Unit 2 will remain out of service until the problem with the blade packing is repaired and all evidence of oil residue in the scroll case and draft tube is cleaned and there is no potential for oil leakage into the river. The AWS was down for about three hours. Unit 2 is expected to return to service before FP season. The intakes for AWS are located in the tailrace and when a unit is leaking oil, the AWS spreads the oil throughout the ladder. Holdren submitted a FPP change form to turn off the AWS when oil is seen in the tailrace and will be discussed at the FPP meeting. All projects need to consider oil spill responses. Conder remarked

that fish run timing should be a consideration for scheduling the commission testing for main units if the AWS will/possibly be shut down. This is the second time in two years that oil leaked in the tailrace. Hevlin recommended having an observer watch the tailrace for oil when returning the unit back to service.

- 5.6. **17MCN01 Trash Raking** – Due to weather, the project hasn't been able to rake the trash rack. The drawdowns are within criteria. The project needs an extension on the dates for raking depending when the weather will allow. **FPOM members concurred with this action.**
 - 5.7. **16BON121 MFR STHD morts Navlock** – For the Future Preventative Measures section of the MFR, the project plans to observe the area that trapped the steelhead before pumping down. The spot is difficult to access but if fish are observed, then personnel will enter via a man basket. This wording will be added to the dewatering plan and the MFR will be updated with results of this discussion.
 - 5.8. **16BON122 MOC WA SH crowder mods for lamprey** – The mods are not exactly the same as the MOC for the other ladder last year. The installation of a perf plate and a rubber seal on the bottom are to keep lamprey from going under the crowder. This procedure was successful on the other ladder so it is being replicated. Trying to keep lamprey from going behind the crowder was not successful and not being repeated. **FPOM concurred. ACTION: TDA will write an MOC on the crowder mods also.**
 - 5.9. **17TDA01 MOC Railroad Rail Removal** – Cordie explained that the sluiceways will be moved so that they are at least 100' away from the work. However, the work will be ongoing above the sluiceway channel. The gates will be closed on the east end during the work so that fish will not be in slow section. Fredricks would like to know what time of day the work will take place. Daytime work would be better for juveniles. March affects kelts more than April. April would be better than March and during the day. If there was no bulkhead blocking the east side of the channel, it would create a dead space that fish might swim up to. The recommendation from FPOM is to open an east end sluiceway to increase velocity and flow so there are not any dead spots. Cordie will update MOC with the details of the actual work and time of day.
 - 5.10. **17TDA02 AWS March Day Work-** Due to the schedule, the AWS project would like to do heavy construction during the day in March. The noise/vibration was louder than expected during the November work but fish still passed as expected. Fredricks suggests not working all day giving fish a chance to pass during some period. **This MOC is pending since members did not have enough time to review.**
 - 5.11. **17TDA03 MOC TDA-N Winter Outage Extension** – **FPOM concurred with this action.**
6. **Fish Passage Plan:** The Current 2016 FPP and Draft 2017 FPP Change Forms are online at: <http://www.nwd-wc.usace.army.mil/tmt/documents/fpp/>. *All un-finalized Change Forms for the 2017 FPP will be reviewed and finalized at the FPOM FPP meeting on Thursday, Jan 26.*
- 6.1. Pending FPP Change Forms.
 - 6.1.1. **17OVE001 – MOC Fish Impacts Section** (Fredricks)
 - 6.1.2. **17BON005 – Oil Spill Response.** (Hausmann). Pending from November. **Approved adding a clause to notify NOAA of closing the ladder within 24 hours.**
 - 6.1.3. **17LWG001 – Forebay Exit Cooling Pumps.** (Setter). Revised and emailed May 16. STATUS: Will revisit at the beginning of 2017.
 - 6.2. New FPP Change Forms
 - 6.2.1. **All projects – Fishway Temperature Monitoring Locations.** One change form per project to add locations to existing FPP figures. Is there a need for a separate Appendix with more detailed figures?
 - 6.2.2. **17BON006 – SLEDs** (Fredricks) - The wording now includes project input but needs engineer approval.
 - 6.2.3. **17LGS002 – Unit 5 Priority** (St. John)
 - 6.2.4. **17LWG003 – Channel Velocity** (Holdren)

6.2.5. 17AppA001 – Doble Testing Schedule. (Setter)

7. Forebay Temperature Profiles (Shane) – CRFM has been tasked with creating forebay profiles for Portland District. More information will be available next month. BON will install probes at the entrances and exits in addition to the existing set up. TDA is in the process of installing the probes. JDA is already in compliance.

8. Task Group Updates.

- 8.1.** Pinnipeds – Consider CRITFC hazers as an alternative to USDA. After the February meeting, the team can discuss issues that the COE has experienced and a path forward for the future.
- 8.2.** BON minimum spill to maintain good B2CC egress. (Fredricks and Lorz). Team: Bettin, Ebner, Hausmann, Mackey, Rerecich, Wright. Date for test selected?
- 8.3.** Hazmat response. (Cordie). Team: Baus, Bettin, Conder, Fredricks, Hausmann, Lorz, Mackey, Wright, Zyndol. Next meeting after January FPOM. Coast Guard and EPA do not have COE on NW Area Plan Consultation. Conder has sent contact info to Mackey and Setter for coordination. This task group can close.

The next meeting will be February 9th in Portland. The April FPOM may be in Walla Walla at MCN if members approve.