

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 14 March 2019 FPOM meeting.

The meeting was held in the Auditorium Conference Room, Bonneville Dam, Cascade Locks, Oregon. In attendance:

Last	First	Agency	Email
Baus	Doug	NWD-RCC	Douglas.m.Baus@usace.army.mil
Bellerud	Blane	NOAA	Blane.Bellerud@noaa.gov
Bettin	Scott	BPA	swbettin@bpa.gov
Cates	Rebecca	NWP-FFU	rebecca.I.Cates@usace.army.mil
Conder	Trevor	NOAA	trevor.conder@noaa.gov
Cordie	Robert	NWP-TDA	Robert.P.Cordie@usace.army.mil
Grosvenor	Eric	NWP-JDA	Eric.Grosvenor@usace.army.mil
Hausmann	Ben	NWP-BON	Ben.J.Hausmann@usace.army.mil
Hesse	Jay	Nez Perce	jayh@nezperce.org
Hockersmith	Eric	NWW	Eric.E.Hockersmith@usace.army.mil
Johnson	Bobby	NWW-MCN	bobby.johnson@usace.army.mil
Kiefer	Russ	IDFG	Russ.kiefer@idfg.idaho.gov
Kovalchuk	Erin	NWP	Erin.H.Kovalchuk@usace.army.mil
Lorz	Tom	CRITFC	lor@critfc.org
Mackey	Tammy	NWP	Tammy.m.mackey@usace.army.mil
Meyer	Caleb	NWP	Caleb.A.Meyer@usace.army.mil
Monger	Kurt	NWW	Kurt.E.Monger@usace.army.mil
Morrill	Charlie	WDFW	Charles.Morrill@dfw.wa.gov
Peery	Chris	NWW	Christopher.A.Peery@usace.army.mil
Setter	Ann	NWP	Ann.L.Setter@usace.army.mil
Sullivan	Leah	BPA	lssullivan@bpa.gov
Swank	David	USFWS	David_Swank@fws.gov
Thompson	Josie	NOAA	Josie.Thompson@noaa.gov
VanDyke	Erick	ODFW	erick.s.vandyke@state.or.us
Wright	Lisa	NWD-RCC	Lisa.S.Wright@usace.army.mil
Zorich	Nathan	NWP-FFU	Nathan.A.Zorich@usace.army.mil

On the phone: Baus, Hesse, Hockersmith, Johnson, Kiefer, Monger and Wright

1. Final decisions or recommendations made at this meeting.

- 1.1. February meeting minutes were approved.
- 1.2. FPOM agreed upon spilling 15kfcfs from 6AM -6PM and full ITS operation starting on 15 March at TDA for increasing attraction to the north ladder.
- 1.3. FPOM agreed upon opening the ITS 24hrs a day and the B2CC 12 hours a day starting 17 March through 10 April regardless if the trigger count is met at BON.
- 1.4. 19BON002 – Temperature-Monitor-Locations – Approved.

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 outages (NWW)
- 2.3. BPA outages (BPA)
- 2.4. Composite Cooling Water Strainer Lamprey Counts (NWW)
- 2.5. MCN Laser Evaluation Plan (NWW)
- 2.6. Coordination Forms (MOC/MFR)(NWW/NWP)
- 2.7. FPP Change Forms (NWW/NWP)

3. Action Items

3.1. NWW

- 3.1.1.[February 19] MCN – **ACTION:** After the avian deterrent laser is mounted, Johnson will provide pictures. *Status: The project is building the stand and will post pictures when available.*
- 3.1.2.[February 19] MCN - **ACTION:** A laser effectiveness study plan will be sent out to FPOM for comments. *Status: Completed.*

3.2. NWP

- 3.2.1.[March 19] **Rock Removal-** **ACTION:** Kovalchuk will create a new page for the spillway rock removal reports on the FPOM webpage.
- 3.2.2.[March 19] **BON CI Subsidence-** **ACTION:** Hausmann will see if the final report has been sent out.
- 3.2.3.[February 19] **Whooshh - ACTION:** Conder will engage Meyer on the design. *Status: Completed. Meyer had some concerns with the change in the invert causing an area where a fish could stall out.*
- 3.2.4.[February 19] **Rock Removal - ACTION:** Kovalchuk will find out if the ROV report is final. *Status: Final reports was confirmed. Lorz requested a new page on the FPOM website for spillway rock removal projects. ACTION: Kovalchuk will create a new page for the spillway rock removal reports on the FPOM webpage.* Setter said that NWW is concerned about possible problems in their stilling basins. ROV surveys have been done and Setter asked how the BON trigger came about. Rocks were identified as a problem first. Ebner was modeling down at ERDC to see how the rocks were moving and came up with the spill flow trigger. Setter will talk to Ebner.
- 3.2.5. [December 18] **TDA dam angling Catch Results - ACTION:** Morrill will ask Winther for data to be broken down by month. *Status: Morrill said to expect the final report before the next FPOM. Still pending.*
- 3.2.6.[July 18] **SLEDS Extensions - ACTION:** Hausmann will look into the feasibility of modifying the SLEDs. *Status: Hausmann had hoped to get a ball park estimate from the FOG bulkheads but the method of cost per pound of steel doesn't work in this case. Engineering will need to make a cost estimate but this will cost money that Fisheries doesn't want to spend.*
- 3.2.7.[July 18] **SLEDS timeframe-** **ACTION:** Hausmann will write a change form and an MFR on the SLEDs. *Status: Still pending.*

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

- 3.3.1.[September 18] **LWG - ACTION:** Holdren will investigate the possibility of changing the bulbs in the channel. *Status: Pending. Spider webs might be causing the light problem. The project will try spraying to be more effective against spiders. Status: Spider webs were removed and the mirror has been lowered. All lights are on and visible in the mirror.*
- 3.3.2.[February 19] MCN - **ACTION:** Setter will send out a brochure from the laser company. *Status: Completed.*

4. Updates

4.1. NWW

4.1.1. Upcoming maintenance/construction/research activities.

4.1.1.1. FPOM outages schedule (Setter) – Setter updated the outages by removing the work that was completed in the winter. LWG work is scheduled to be completed on time. LGS cooling pumps will be next winter. IHR MU2 is not expected back until the end of March. LMN MU1 has returned to service.

4.1.1.2. Breaker Work measurements in April (Setter) LWG, IHR – In Appendix A, LWG was the only dam expecting to have breaker work for 2019 but IHR will have the same work done. Measurements for the new breakers was supposed to be taken in February but that has been delayed until April. The project is replacing XJ breakers and capacitors. Setter thought an outage of MU1-4 for one week would be needed to replace the breakers but the work may occur at the same time as the double testing. Conder asked if units were need to go out of service to take measurements. Monger said that LWG will take out MU5 for 4 hours on 8 April for the measurements. IHR is scheduled to do the same thing on 22 April. The project is trying to coordinate with the transformer replacement project and there is a good chance that no unit outages will be necessary at IHR. Conder would prefer not to have the two outages and wants this work done concurrent with the double testing. Setter said that the contractor did not finish the work within the in water work period as they were supposed to. Lorz stressed that the in water work period needs to be respected. It has been a consistent problem that contractors have not been held accountable to the dates in the contract. Lorz wants the COE leadership to hear how this is affecting fish passage and relationships with regional partners. Setter suggested bringing this message up at a higher level than a technical level. Bettin suggested looking at the winter work period again to see if some activities can happen after the period is over. Lorz said FPOM looks at a case by case and doesn't want to stretch the dates. Setter said that giving the dates to contracting is efficient and if a more flexible timeframe is given than a slip would have a bigger effect. Lorz feels that the CRTFC and the other partners need to call out the COE for the many deviations on the FPP. Mackey said that she will share the message that FPOM would like to see the COE adhere to the FPP as written and make an effort to keep projects within the in-water work period.

4.1.1.3. LMN early start without fish condition sampling – LMN went into primary bypass with full flow PIT detection on 01 March with screens in units 1-3. Due to cold temperatures, they delayed starting up the sampling facility until 07 March. They have had three samples with 0-34 fish per day. Water temperatures is 38°. All PIT detections to date have been fall chinook hold overs. Lyons Ferry released their yearling fish due to fish health issues. Hockersmith will let the project know so they can turn the sample rates down. FPC will have the dates and numbers on their weekly report. Fall chinook were released and a large release of steelhead will be let go soon due to BKD.

4.1.1.4. LWG adult trap – Kiefer requested an update on the adult trap. Holdren reported to Setter that NOAA was not operating the trap yet because of the cold weather and NOAA still needs a permit for the clean water act. Setter is receiving questions about when the researchers will start and is asking NOAA to look into this. Conder suggested talking to Marsh. COE would like better communication with IDFG and other groups that are asking questions. Kiefer will add Marsh to the email thread but wants more communication on the plan for starting up the trap. Kiefer is frustrated by lack of a water filtration plan since the problem has been known for a while.

4.2. NWP

4.2.1. Upcoming maintenance/construction/research activities.

- 4.2.1.1.** BON rock removal (19BON02) – Completed. Rock removal was completed on 15 February and the fish unit dredging was completed on 18 February. Bettin asked if the avian wires are up. They are not. Hausmann said that the high flows broke the lines and wondered if the lines should go in after the freshet. The flows are not expected to be as high as last year. A new design might be necessary in the future.
- 4.2.1.2.** Whooshh installation (18BON67) – Mackey said that the RE agreement should be signed today and Whooshh can start installation. The pipe will be installed before the AFF is back in service; it should take four days. Conder asked about the curve and the angle and Mackey said that the COE has requested additional drawings. Mackey suggests scheduling a site visit on either 22 or 25-29 February. Van Dyke asked how long it would take to take the pipe out. Hausmann is not sure. Kovalchuk will send out the diagrams that have been providing by Whooshh. Mackey said Whooshh implied that there is a bill in the WDFW legislation to reimburse Whooshh for this work. The researcher guide will be updated to include the real estate license and associated fees. Hausmann will keep in contact with Whooshh to see when the pipe installed for a site visit on Thursday or Friday. The facility could be watered up the last week to see the pipe with water.
- 4.2.1.3.** TDA Fish Unit Breakers (18TDA14) – Mackey updated that the contractor has changed out key personnel and the project is seeing an improvement on their schedule. The return to service date is 03 April. Water will be running through the units the week before. Project commissioning will be concurrent with the contractor's. Cordie mentioned another plan to focus on returning the bus for line 1 first and then moving on to line 3 but this option was rejected by the corporate board because it wouldn't save much time. Lorz wants to start spilling for north fish ladder attraction water.
- 4.2.1.4.** TDA AWS system (19TDA02) – The contractor has been tightening the bolts on the 10' and 7' valves. There may have been a mix-up in the bolts installation. The valve was moving which cracked the actuator housing and the housing is being replaced. This system does not have a return to service date. The work to tighten the bolts is much more than it seems. Special tools have been required. Morrill expressed frustration that the system would require special tools instead of common tools for repairs in the future. The teletype for the ITS/Spill special operation ended on 14 March. Current temperatures are 36°. Van Dyke said he doesn't want a spill plan that changes on a couple of degrees. NOAA and CRITFC suggested the 15k that was used in the past. In the FPP, the daylight hours is 16hrs but BPA is looking at 6-8 hours. Van Dyke would like 24 hours. Conder suggested an hour before sunrise. Bettin said that the FPP gives a cushion already in the daylight hours. Lorz wants 12 hours but can live with 8. **FPOM agreed upon spilling 15kfc from 6AM -6PM and full ITS operation starting on 15 March.** The spill bays used are laid out in 14TDA09. Cordie will check on a crane crew to return the ITS back to the normal operation. Mackey suggested writing return the ITS to FPP criteria as soon as possible and no later than Monday in the teletype and leave it open ended. Bellerud suggested ending when the east ladder is running to full open criteria but it was too confusing for a teletype. Morrill suggested thinking about spill after juvenile spill starts.
- 4.2.1.5.** JDA sampling delay (19JDA05) – The project went into full flow bypass on 11 March and sampling mode on 13 March. The delay was caused by lots of ice buildup and freezing issues. A couple of PIT tagged fish have already been detected.
- 4.2.2.** BON fish unit trash rack repair/replacement/cleaning – All the old racks have been pulled, repaired and cleaned. BON used to manually clean the racks annually but after several

changes of personnel, it stopped happening. The project will go back to cleaning annually to prevent more floating off the debris. The fish units will have to be turned off to put the new racks in.

4.2.3.BON CI subsidence – PSMFC is meeting with project staff on 14 March to decide on a new location for the PIT building. This will be a new building; they are not moving the old building. Swank asked how the subsidence is being measured. Hausmann said that it is visual. There is no long term plan in place yet. Surface containments have been tested for but the 30' core samples will show anything further down. **ACTION: Hausmann will see if the final report has been sent out.**

4.2.4.B2CC trigger/ITS operation – The current status at BON is the sluiceway is closed except for debris passing and the B2CC is open six hours a day. For safety reasons, the lower leaf gate of the ITS cannot be opened. Conder said that the trigger counts will be influenced by the current operations. The average is date for opening the B2CC on a 24 hour basis is 17 March. Conder wants the B2CC open on 17 March and the ITS open as well to have a path at PH1. For a 2017 operation, Fredricks chose 17 March as the date as well. Bettin said that since the B2CC was running for the last several weeks, it has been passing kelts that were coming down. The FPP criteria would have the ITS open and shut the B2CC until the trigger is hit. However, following that procedure would keep the B2CC closed throughout March because the trigger is biased. Bettin said that the current operation is working since the CC is off 18 hours a day and hardly any ST have passed through the JBS. Conder wants the CC on for at least day light hours. Bettin feels that the criteria was made stricter a few years and not based on any specific data. Fredricks wanted to change from the trigger to a date. Conder feels that a year with a low run should have the most protections in place. Hausmann has not observed any fish holding in the forebay. Bettin said he might be able to do 12 hours through April 10, regardless of the trigger. Mackey suggested opening the ITS 24 hours a day and B2CC open 12 hours a day starting the 17 March using the table in the FPP for a start time. Cordie said there was no diel difference at TDA. Mackey said that ST will hold and wait for a route. There will still be monitoring at the JMF for ST. The trigger date needs to be discussed. Three auto gates of the ITS will be open 24 hours a day. Conder said that there is something in the channel that needs to be removed before opening the ITS. **FPOM agreed upon opening the three auto gates of the ITS 24hrs a day and the B2CC 12 hours a day starting 17 March through 09 April regardless if the trigger count is met.**

4.2.5.Otters (BON and TDA) –An otter was visiting Cascade Island and now that WA Shore is running, the otter prints have been spotted there as well. Last year, the project tried unsuccessfully to live trap. Bissell reached out to hatcheries on how to capture otters and found it is very difficult. The otter has gone into the ladder and been observed eating lamprey. FPOM concurs with seeking lethal control but the next step is unknown. Van Dyke said it may require a permit. Both TDA and BON will monitor their otters.

4.3. Research/FFDRWG updates.

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

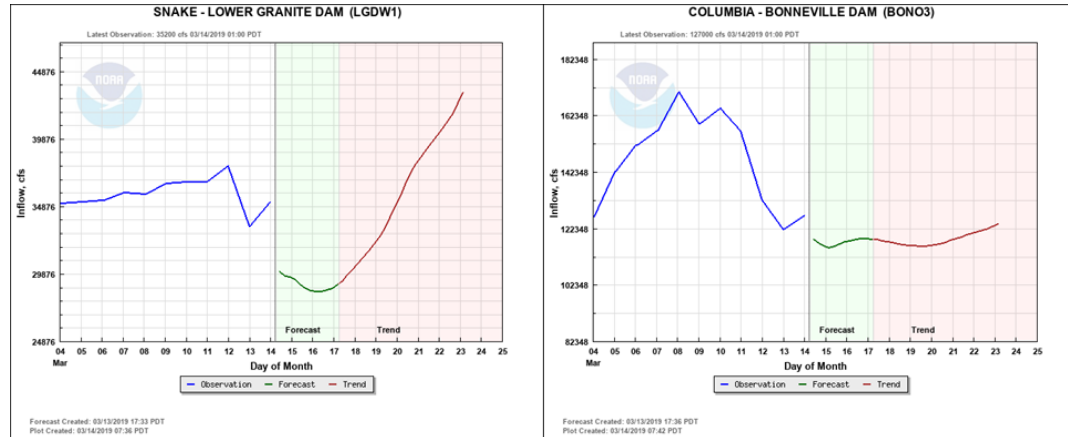
4.3.1.NWP FFDRWG – Lorz want an update a major rehab report for BON. Mackey would like this on the FPOM agenda for next month.

4.3.2.NWW FFDRWG – The next meeting is 23 May. Lorz and Bellerud will be providing comments on the MCN avian wire plan.

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	33	31	43	29 (3/16) / 43 (3/23)
MCN	103	104	111	102 (3/19) / 111 (3/23)
BON	125	117	124	116 (3/15) / 124 (3/23)

Table 1. RCC flow forecast



4.5. BPA update – MCN units 13, 14 and possibly the Wasco County PUD fish units’ outage was scheduled for late April but has been moved to May. Bettin recognizes that this is not an ideal situation but it needs to be completed before the next scheduled work can continue. BPA will keep FPOM updated.

4.6. Fish Count Program

4.6.1. Next 5-year adult fish counting contract – The new contractor is getting their program started up. The transition plan should be submitted soon. Peery is projecting that the contractor will be operational in mid-May or 01 June. Counting continues at BON and LWG and are posted. Starting 01 April, live counts will continue at BON and LWG and the other sites will be video counted with a three to five day turnaround time. The supplemental TDA counts are not posted to the web but could be. The TDA counts will be sent to FPOM in their weekly report.

4.7. Pinniped update – Tailrace observations have started. No CSL and low numbers of SSL have been observed.

4.8. Chum update – Fry are still in the gravel. The tailrace will be held at 11.3 for another week.

4.9. Lamprey update –The LPS will start up in Mid-April at BON. A UofI study and tribal translocation will take place again this year. Lorz asked about if TDA counts are 24hr or 16hr daytime counts on the web. Zorich said it should be explicit on the website.

4.9.1. BON LPS pumps - This topic can be removed. The project is working towards lifting the Cascade Island LPS.

4.9.2. JDA LPS – The elevator will need major rehab work. The new assembly for the two LPS pumps that was just put in this year has already cracked the PVC housing and the pumps hadn’t even been turned on. This work was from a contract mod to the original contract. The old pumps might be put back in but the contract might need to stay open and the COE couldn’t use the equipment.

4.10. Avian Update

4.10.1. BON – no update

4.10.2. TDA – no update

4.10.3. JDA – no update

4.10.4. MCN – The project is building a stand for the laser. Peery sent out a study plan last week to FPOM that will evaluate if the laser is effective. The laser does not stay on continuously; it is automated to go on and off to keep birds from being habituated. The study will be a block study with the laser in the on or off setting. Setter asked about language that prohibits the laser from hitting pelicans or other species. The laser is not aimed at birds but aimed at the outfall. Bellerud said that the laser is similar to the avian wires in that pelicans can be affected by the laser but cannot be targeted. Van Dyke asked about lethal risk. Peery said that there is potential for eye damage but not a lethal risk. MCN will have to assess how effective the laser is in the daylight. Conder brought up the caveat to turn off the study and is okay with it but Thompson said that terns and pelicans come later and a new species might have a different response and wants NWW to keep that in mind.

4.10.5. FFU – FFU prepared an acre of tern habitat on East Sand Island and are installing dissuasion fencing on Rice Island. The cormorant work is completed. Plover fencing was completed on 13 March.

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

5.1. 19 LMN 02 MFR Sample delay- This was discussed under 4.1.1.13.

5.2. 19 IHR 02 MFR North AWS pump outage –The AWS pumps tripped and was not caught for a couple of days. Thompson wanted clarification on if comments are necessary if she is okay with the operation. Setter said always best to send comments with concerns or disapproval, but when no written comment is received Corps will assume agreement.

5.3. 19 MCN 03 MFR Oregon fishway delay RTS –Fish pump 3 returned to service March 4. The fish pump going out of service for long overdue maintenance is fish pump 1. A major outage occurred during the night that affect the fish pumps which will go into the weekly report. Johnson also reported that the project will be rehabbing a fish pump from 18 March to 25 May.

5.4. 19BON03 MOC Fish Unit Outage –A PDT is trying to see if it worth rehabbing unit 0. One fish unit will be off but the other will be running and the project will be in borderline criteria. The dates are April 9 and 10.

5.5. 19JDA04 MOC Smolt Monitoring Facility Sampling Delay – Discussed under 4.2.1.5.

5.6. 19JDA05 MFR Full Flow bypass delay – Discussed under 4.2.1.5.

6. 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/>

6.1. Pending Change Forms:

6.1.1.19LGS004 – Channel Velocity (Peery/ St. John). Pending more information on rationale for changing the location. St. John found some language that the location is up to the project biologist.

6.2. New Change Forms:

6.2.1.19TDA004 – AWS Backup Operation 2 (Cordie) – Closest unit available to the east entrance. **Pending - waiting on Lorz and Van Dyke.**

6.2.2.19BON002 – Temperature-Monitor-Locations (Bissell) – This was just a correction - **approved.**

7. Task Group Updates.