

## MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 09 June 2016 FPOM meeting.

The meeting was held in the Columbia Room at CRITFC. In attendance:

<b>Last</b>	<b>First</b>	<b>Agency</b>	<b>Email</b>
Bailey	John	NWW	<a href="mailto:John.C.Bailey@usace.army.mil">John.C.Bailey@usace.army.mil</a>
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Zyndol	Miro	NWP	<a href="mailto:Miroslaw.a.zyndol@usace.army.mil">Miroslaw.a.zyndol@usace.army.mil</a>

On the phone: Bailey, Benner, Chamberlain, Fredricks, Fryer, Iverson, Keifer, Laughery, Moody, Petersen, Pinney, Trachtenbarg and Walker

Documents may be found at: <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/>

## 1. Decisions made at this meeting

1.1. May meeting minutes approved.

- 1.2. NWW Transport change forms. LMN approved and completed, LGS pending. LGS to be revisited in October and added to the FPOM agenda at that time.
- 1.3. FPOM recommends turning lights off in the BON viewing areas to assist with lamprey passage at night.
- 1.4. FPOM agreed to BPA's request for MCN units 1-4 and 5-6 OOS from late morning until evening the week of 14 August.
- 1.5. FPOM agreed to BPA's request for a two hour outage of JDA units 1-4 during an afternoon in June.
- 1.6. Avian Task Group meeting after the July FPOM.
- 1.7. Hazmat response Task Group meeting after the August FPOM.
- 1.8. MFRs. NWP Project will continue to write MFRs for morts found at all fish facilities
- 1.9. Coordination Requests
  - 1.9.1. **16BON11 MOC LFS Dive updated Approved**
  - 1.9.2. **16BON14 MOC T11 and T12 outage schedule updated Approved**
  - 1.9.3. **16BON17 MOC PH1 and PH2 spalling repair Approved**
  - 1.9.4. **16MCN08 MOC Debris Spill Notification updated and Approved**
  - 1.9.5. **15LWG025 MOC LWG JBS Primary Outfall Construction Approved**

## 2. Action Items

### 2.1. NWW Action Items

- 2.1.1. [June 16] LWG Adult Fish Facility mortality reporting. **ACTION:** Setter to make sure this is covered in the weekly reports and include it as an update on the FPOM agendas.
- 2.1.2. [June 16] MCN debris removal - **ACTION:** NWW will a draft change form for debris removal operations to coordinate with the new log bronc capabilities.
- 2.1.3. [June 16] LWG JBS Primary Outfall Construction - **ACTION:** Trachtenberg will follow up with the chief of ops regarding information on lock-out tag-out procedures.
- 2.1.4. [Jun 16] MCN Avian Abatement. **ACTION:** The FPOM Avian Task Group will meet after the July FPOM meeting.
- 2.1.5. [May 16] **16MCN05 MOC Wasco crane TSW ops. ACTION:** Laughery will gather more information and get back to PUD by COB on 13 May. **STATUS:** Completed
- 2.1.6. [May 16] IHR orifices not operating when unit 5 was down: **ACTION:** Wright to submit a change form. **STATUS:** Completed
- 2.1.7. [May 16] LMN during pre-transport season. **ACTION:** Wright to submit change form for LMN. **STATUS:** Setter commented that there have been personnel issues. Conder said that we may need to look at sampling frequency. Setter acknowledged. Setter still has reservations for LGS on ability for implementation. She doesn't quite understand the mods that will be required. Conder suggests approving now. Hevlin said he'd rather not approve and come back in the winter. Setter agreed that is her preference. Setter said safety issues are the biggest concern. **LMN approved and completed, LGS pending. LGS to be revisited in October and added to the FPOM agenda at that time.**

### 2.2. NWP Action Items

- 2.2.1. [Jun 16] Lamprey updates. **ACTION:** Zorich to add Swank to the LPS count list.
- 2.2.2. [Jun 16] BON T11/12 outage. **ACTION:** R. Walker will send the MOC to N. Richards.
- 2.2.3. [June 16] BON CI Subsidence. **ACTION:** Royer to draft a MOC and include the survey markers picture.
- 2.2.4. [May 16] TDA AWS back-up **ACTION:** Rerecich to provide an updated MOC. **STATUS:** Will remain an action item for now.

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

- 2.3.1. [May 16] **17LWG001**– FPP change form. Operation of forebay exit pool cooling pumps: **ACTION:** Wright to submit updated change form. **STATUS:** Submitted. Will discuss under change forms.
- 2.3.2. [May 16] BON U8B tail log slot mortis. **16BON12 MFR ACTION:** Dalgliesh to send MFR out **STATUS:** MFR posted on FPOM website

3. Updates

3.1. NWW Updates.

- 3.1.1. Upcoming maintenance/construction/research activities. FPOM OUTAGES schedule available on the web site. Setter reported that the JCC rehab at MCN was pushed out a year. That is the only outage change.
- 3.1.2. LGS cooling pump emergency operation - Setter reported that a contract was awarded last Friday. It has a 1 July start date. Lorz asked about monitoring. Setter said the contractors have the requirement to keep it fueled and operating and that LGS staff doesn't have a requirement. Baus asked about depth. Setter said it was determined that if they could go as deep as 70ft that would be acceptable and they will be going 60ft at least. The water will be delivered to the forebay. Laughery said that the water will be released above the surface 10ft upstream of the dam face and 6ft wide. Conder asked about direction of release and Laughery said that it has to be at a minimum perpendicular but ideally orientated more upstream of the exit.
- 3.1.3. LWG cooling pump operation-(Pinney) –Setter said that late last week Hevlin, Pinney and herself had discussions about researching the pump operations. As of Monday at 10:30 through today at 10:30 the cooling pumps were turned on in the forebay. Setter asked Pinney to report if there were any differences seen. Pinney said that we have been offline a bit with temperature but they have 24 hours of good data. Laughery had the project pull the hobo information. Setter commented that their hobo information will go to the fish passage center this year. PITAGIS was out for a few days but came back yesterday. Pinney sent out graphs of information showing temperatures. There aren't dramatic temp differences between the surface and the bottom. There are a few pit tagged fish in the system that they are able to track. LWG exit test in the first 24 hour. Shower went on 6 June and a half to a full degree went down in the first 24 hours. The tailrace is close to the ladder temp. The system was normalized to a 60ft depth. There is only a 2-3 degree difference between 60ft depth and surface temp. Pinney said that it appeared based on the pit tag information that by cooling the temps just 2 or 3 degrees travel time through the ladder improved. Lorz asked about where A1 – A4 are. Laughery said that the probes are listed as S1-S4 with 1 being the exit pool, 2 below the diffuser, 3 is the turn pool, and 4 is a weir at the entrance. Before the pumps were turned on the exit pool was tracking closely with the 1.5 meter depth in front of the powerhouse and once the pumps were on the temp differentials were reduced by about 3.5 degrees. Laughery said when reporting stopped on 7 June it looked like there was a zone where outside of the spill the temps were even being influenced to help match tailrace temps. Setter reminded about the strawman suggesting 68 degrees as when to begin the cooling pump operation and if that was still good. Laughery would like to look at pit tag info on days when they did and did not have differential information to help make that decision. Conder said that U of I did a comprehensive study on differentials. There is a trend with delay with differential that gets pretty big at 2 degrees C. Setter asked about revising the strawman and Conder and Lorz said that would be good. Hevlin suggests continuing with operation and just continue to look at the data more. If anyone sees anything of concern then bring it back to FPOM. Pinney said the DIDSON would go into place

next Thursday at the earliest. Keifer said the showers look like they're doing what we hoped. They are looking at cooler temps over the next few days. Snake River Sockeye are just showing up at Bonneville. Keifer is comfortable reinitiating the cooling pumps today. There will be an outage next Thursday to get the DIDSON equipment in. Hevlin summarized that after the DIDSON equipment is installed then the pump will be off for a couple days to observe behavior without the shower on. Then the shower will go back on unless behavior indicates that it needs to come back on sooner in which case that will happen. Setter asked for clarification and that if everyone agrees than we can turn the pumps on with certain caveats and yes there is agreement. Conder asked about overall run time and Setter said they are designed to run for a long time. Pinney said that DIDSON information can be downloaded right on deck for immediate use. Morrill suggests that after the DIDSON equipment is installed we turn the pumps back on and leave them on until further notice. Final is we are turning the pumps on and leaving them on until further notice apart from DIDSON installation.

### 3.2. NWP Updates:

**3.2.1.** Upcoming maintenance/construction/research activities. Includes already coordinated MOCs.

**3.2.1.1.** FGE Mods

**3.2.1.2.** BON T11 / T12 (coordinated in MOCs 14BON13, 14BON59, 14BON82 & 15BON02)

**3.2.1.3.** BON CI Subsidence. Royer reported that the project would like to install 14 survey markers along the top of the ladder. That will require a couple minutes of hammering per marker for installation. This allow for monitoring of any movement of the ladder. Fredricks suggested performing the operation late in the day. Royer said they would like to do this soon. Fredricks said as soon as possible would be good. Fredricks agreed that this is important to get done. Fredricks would like an MOC written. **ACTION:** Royer to draft a MOC and include the survey markers picture.

**3.2.2.** JDA-S AWS turbine update: Zyndol reported that slow progress is being made towards overhauling the remaining two pumps. They just received \$100k UFR. Mackey reported that this is not in the FY17 or 18 budget so we will be relying on UFRs.

### 3.3. 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) :

**3.3.1.** Walker reported the FGE work contractor will be delivering the VBS porosity plate for installation. Today is the first delivery and in 10 days the other half. The contract for the FGE flow control plate in the gatewell to be awarded no later than August this year.

**3.3.2.** TDA AWS contract has been awarded. The pre-construction meeting is 22 June at TDA. Waiting for an updated construction schedule. Rerecich will update the MOC when that happens and present to FPOM. Walker asked Cordie about dewatering the ladders and if that needs to happen now or later. Cordie commented that we have already started coordination for dual outages and to have the North ladder out for two weeks in January. Walker also commented that Rerecich will be sending out a Doodle poll for the next FFDRWG. Tentatively looking at mid to late August.

**3.4.** RCC update. Wright said that the current criteria to close the spillway weir at LGS is below 35kcf/s on or after 1 August. We will be below 35 kcf/s 30 June. There will be 5 or 6 days around the beginning of July that the kcf/s will bump back up and then drop back down because of DWR. Setter said if the forecast was true we would have a 10 day look. The

modeling runs for flow forecasts change so rapidly that it would be premature to make changes now. Setter said she would be more comfortable looking at the forecast two weeks from now. Setter said we have other caveats like unexpected precipitation. Setter said 3 day notice is good for changing the crest height, excluding weekends. Setter commented that there have been ongoing discussions regarding data on flow patterns. There is limited ERDC modeling data in terms of what flow patterns would provide optimum survival rates for fish still left in the river. A consensus has not been reached on what flow patterns would be best. Hevlin said having the ASW operating, as long as the tailrace is cool, seems better to use that route. Keifer said he has been thinking along those same lines. Tailrace temp gauges will help with this management. If flows are low and temps are up there could easily be agreement to shut off ASW at LGS. Keifer believes that sounds reasonable in terms of in-season management. This will be coordinated either through weekly TMT or a special FPOM. Maintain spillway passage efficiency as long as it's prudent to do so. As temps rise lower survival happens. Conder asked how this will be coordinated. Setter said either TMT or a special FPOM.

**3.4.1.** Wright said the official June water supply forecast is out. Everything is lower than last month. TDA is 93% of average of run off. LWG 85%, Libby 110%, Dworshak 86%, Grand Coulee 95%, Albeni Falls 87%. All numbers are April through August. Setter asked about June through August comparison from last year and Wright said there wasn't anything for just the summer months but there is a little more water, not a great deal.

**Table 1. RCC flow forecast**

<b>Project</b>	<b>Previous day average (kcfs)</b>	<b>5 day forecast average (kcfs)</b>	<b>10 day forecast average (kcfs)</b>	<b>Projected Peak</b>
<b>LWG</b>	75	60	49	75
<b>MCN</b>	226	198	180	226
<b>BON</b>	221	208	191	221

**3.5. Pinniped updates:**

**3.5.1.** Zorich reported sea lion monitoring ended 31 May. State hazing and removal is complete for this year as well. Zorich has an update of further information that he can send. Conder asked if Stellers are still hanging around and Zorich said no although there is one residual California that seems to hang around.

**3.5.2.** Zorich commented that the Pinniped Fish Interaction task force met on 31 May. NOAA wanted to see about extending the States' section 120 permit for lethal take. Most Task Force members approved of extending the permit. Conder asked if there was any consideration for adding Stellers to the permit for lethal take. Zorich said no. Four sea lions were above BON. Morrill asked about sturgeon consumption. Zorich said it was very low. The sea lion observers noticed the sea lions eating more lamprey this year than last.

**3.6. Lamprey updates:** Zorich commented that the run is looking strong so far. More lamprey taken by sea lions than in previous years. The night counts at BON are turning up negative; there is more downstream than upstream movement. Swank asked about the LPS counts. Bettin asked if the Visitor Centers turn off lights at night. Lights must remain on for security reasons. Royer said BON is looking into motion activated lights, curtains or automated blinds. Conder asked about the negative net count and if that's day time / night time. Zorich said it's recycling of fish. Lamprey are passing in areas where they can't be seen or counted and then coming back down. **ACTION:** Zorich will add Swank to the LPS count list.

**3.7. Avian.**

**3.7.1.** TDA avian (Cordie)

- 3.7.1.1. Extending hazing until 18 August – Hopefully next year there won't be a delay in the program starting.
- 3.7.2. JDA avian. (Zyndol)
- 3.7.2.1. Extending hazing until 11 August – they have about 15 gulls and 10 white pelicans that are hanging around.
- 3.7.2.2. As of 9 June there are 17 avian lines missing. A funding request for an estimated \$250k was submitted to replace those 17 lines. Conder commented that Medina mentioned at FFDRWG that they are looking into new materials and connections for lines. VanDyke asked about changing the design. Mackey said the PDT is looking at getting the system repaired to original design and not looking at a new design.
- 3.7.3. MCN Avian (Setter) Setter commented that they have a 20 June meeting with APHIS set up to help to modify the project. Setter asked that if there were specific concerns regarding hazing from anyone they put that in a letter that she can have to bring to the table. Fredricks said that it makes sense to get a task group together and discuss the successes and failures and come up with some alternatives. He would like to have an FPOM level discussion and have USDA at the meeting. Setter said we will need to push it off due to time constraints. She said she will voice unhappiness with the level of success with the program. Setter said the meeting is in Walla Walla and it's more of an in house meeting to discuss FY17 scoping. Fredricks said that they can get the task group together to discuss further. Fredricks believes more needs to happen be it wires or whatever. Mackey asked when Setter would like the task group to meet and she said after the July FPOM. Conder asked if they currently haze from the end of the bypass outfall. Setter said they do not go on the outfall itself due to a safety issue but they do haze from boats. She doesn't believe that the boat hazing is maxed out and there could be more capacity. **ACTION: The FPOM Avian Task Group will meet after the July FPOM meeting..**
- 3.8. BPA updates.
- 3.8.1. Bettin asked about taking MCN units 1-4 and 5-6 out of service on 28-29 August. He asked if FPOM would want to move it up a couple weeks or do it later in the day. He is most concerned about units 1-4. Setter commented that the sawtooth pattern is for juveniles and having a block of units out sort of defeats the purpose. Bettin thought that temperatures might be a higher priority than adult passage. Conder asked if it could happen later. Bettin said they could either move it up a couple weeks or it could happen later in the morning. Conder asked what steelhead passage is like. It is higher in late August and early September at MCN. **Fredricks suggested moving it up two weeks earlier. Bettin said the units would be off from 07:30 to 17:00 each day. He said they could start a bit later in the morning and Fredricks agreed that would be a good idea as well as moving it up in timeline.** Moody said Chinook and Steelhead peak passage seems to be around 09:00-10:00.
- 3.8.2. Bettin said also that there was going to be a 2 hour outage midday, 14:00 – 16:00, at JDA of units 1-4 in June. Fredricks said that shouldn't be too much of a concern due to a pretty even split between ladders.

#### 4. Coordination/Notification forms (need concurrence/discussion)

- 4.1. 16BON11 MOC LFS Dive updated – Walker said this MOC is final. He updated the information to include piggy backing on the T11 / T12 outage. **Approved**
- 4.2. 16BON14 MOC T11 and T12 outage schedule updated – **Approved**
- 4.3. 16BON15-16, 16BON18-22 MFRs – Conder asked if we ever see mortality reports from LWG. Setter said they are more research than operational morts. Mackey said all AFF morts are reported, whether handled by researchers or not.. Setter said that to her awareness they

don't get reported as facility morts. Mackey said that regardless every adult mort is reported even though researchers are also reporting them in their take permits. Setter said she could get reports. Setter said NOAA operates the LWG trap. Conder said regardless of who is operating the trap we should go through the same process at all fish facilities. Conder said the weekly report is fine just to get the information. Fredricks commented that he thinks BON information could go in a weekly report. Mackey disagreed, given the mortality seen recently at BON. She said especially because the tribes track the MFRs for lamprey. **NWP Project will continue to write MFRs for morts found at all fish facilities.** Setter said if there is a major issue they will write MFRs otherwise the information will be in the weekly report. Fredricks agreed that the more data you have the better especially if you have problems. Setter asked what Hevlin's preference is for reporting. He said that he's ok with how it is happening now based on how busy the researchers are and that the process could be looked at later, but they could be asked what might work better for them. **ACTION: Setter to have this as an update topic for next FPOM.**

- 4.4. 16BON17 MOC PH1 and PH2 spalling repair** – Royer reported that a lot of spalling has occurred. She said she spoke with the engineers and there are two places at PH1 that need repaired. There is water leaking into the visitor galleries so it would be best to do the work sooner rather than later. The repairs require saw cutting around the spalling to prepare for the new concrete. It will take about an hour per spall. Fredricks said he's already spoken to Hausmann and he's ok with it and Lorz concurred. **APPROVED**
- 4.5. 16MCN08 MOC Debris Spill Notification** – Setter reported that this went out last week. The hours had to be changed. The debris clean-up was completed yesterday. The new log bronc is working well. The operation started Tuesday and they had some boat issues that were resolved. They did the bulk of the work all day Wednesday. They lassoed the debris and pulled it upstream of the TSW in bay 20. Fredricks commented that this is basically just the after action report. The removal date has been delayed due to the need to clean the VBSs which they are doing today. Updated and **APPROVED**
- 4.6. 16MCN10 MFR McNary Fish Pump 1 Outage** – Setter said they had heated oil and a filter problem that has been resolved this morning. They should have fish pump 2 back in September so they will have a back-up. Lorz asked about the faulty sensor and Setter said that they replaced the indicator which was giving a false reading. Morrill asked about the debris and its consistency and if it were sunken or not. Setter said she didn't have much feedback. There were some 6-8" twigs and vegetative matter being pulled through. Setter commented that in the future the units don't need to be out due to the new log bronc. Spontaneity of debris operations will be more available and not necessarily need the 3 day prior coordination or a spill pattern change due to the new log bronc. **ACTION: Setter will ask Johnson to develop a draft change form for debris removal operations to coordinate with the new log bronc capabilities.**
- 4.7. 15LWG025 MOC LWG JBS Primary Outfall Construction Revised 3June2016** – Trachtenberg Bettin asked about spilling over the agreed 6.8kcfs. Trachtenberg said we would continue the 6.8kcfs at NOAA's request. Hevlin asked about the majority of the work being done during the day. He thought the first step would be to shift the RSW to the nighttime. Baus asked about lock-out tag-out procedures of gates. He asked what, from a time standpoint that might entail at LWG. Bettin asked about ice. Setter said there may be some in season work issues to work out but NWW feels comfortable with this now. **ACTION: Trachtenberg will follow up with the chief of ops regarding information on lock-out tag-out.**  
**APPROVED**

- 5. NWP Oil Spill Plans** – Presentations posted on the website. Cordie gave his presentation. It was determined that there are many scenarios that would require unique responses. **ACTION: FPOM**

will review the spill plans and the .pptx files on the website. The Hazmat response Task group will meet after the August FPOM meeting.

**5.1.** Mosier oil train wreck. Limited discussion. Everyone agreed we got lucky but as a Region we need plans in place.

**6. Fish Passage Plan:** The Final 2016 FPP and Change Forms are online at: <http://www.nwd-wc.usace.army.mil/tmt/documents/fpp/>.

**6.1.** Pending FPP Change Forms.

**6.1.1.** **17LGS001** – SW Close Criteria: WITHDRAWN. FFDRWG discussed these criteria on May 25 and no consensus was reached. The change form will be withdrawn and the existing FPP criteria remain in effect (close the SW on or after August 1 when flows are <35 kcfs). Any revision to this operation will be coordinated in-season via FPOM, similar to 2015 when the SW was closed on June 18 per coordination with FPOM at the June meeting.

**6.1.2.** **17LWG001** – Forebay Exit Cooling Pumps (Setter). Revised per FPOM comments at the meeting on May 12 and emailed to FPOM from Ann Setter on May 16.

**6.2.** New FPP Change Forms.

**6.2.1.** **17AppB002** – Transition to Primary Bypass (Conder).

**6.2.2.** **17BON001** – Lamprey Operations Start Date (Royer)

**6.2.3.** **17BON002** – Kelt Trigger Clarification (Zorich)

**6.3.** Potential FPP change forms.

**6.3.1.** BON FOGs (per Gary's request)

**6.3.2.** BON minimum spill

**6.3.3.** Appendix C load shaping guidelines

**7. Task Group Updates.**

**7.1.** Yet-to-be active task groups.

**7.1.1.** BON minimum spill to maintain good B2CC egress. (Fredricks and Lorz). Team members include: Bettin, Ebner, Hausmann, Mackey, Rerecich, Wright. Report from Laurie, waiting for ERDC information.

**7.2.** Active Task Groups. Currently no active task groups meeting at this time.

**7.2.1.** Hazmat response. (Cordie). Team members include: Baus, Bettin, Conder, Fredricks, Hausmann, Lorz, Mackey, Wright, Zyndol. TG will meet after the August FPOM meeting.

**7.2.2.** Avian Hazing. (Setter). The TG will meet after the July FPOM meeting to discuss MCN hazing.

**8. Meeting adjourned at 12:45**