

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 10 March 2022 FPOM meeting. The meeting was held via WebEx. In attendance:

Last	First	Agency	Email
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1. Final decisions or recommendations made at this meeting

- 1.1. February FPOM minutes approved. Morrill has some grammatical edits to make.
- 1.2. LMN Spillbay 3 repairs. There will be no spill through bay 6 due to risks to the gate and the frequency of closing the gates for fish barge loading and transport.
- 1.3. MOCs
 - 1.3.1.MOC 22 LMN 01 North Shore Fish Ladder Debris Barrier_Modified. No opposition.
 - 1.3.2.MOC 22 LWG 02 PNNL Receiver. No additional comments or questions.
 - 1.3.3.MOC 22 LWG 03 NavGuideWallCable. No opposition to the MOC.
- 1.4. FPP Change Forms were approved.

2. Action Items

2.1. NWW

- 2.1.1.[Mar 22] LMN Spillbay repair. **ACTION:** Peery will check option to conduct testing in September just prior to repair work vs. in March.
- 2.1.2.[Mar 22] Biological Services reports. St. John requested input from FPOM on who would like to receive the contract report as well as the normal weekly report. **ACTION:** FPOM will confirm which reports they would like to receive.

2.2. NWP

- 2.2.1.[Mar 22] BON T12 outage schedule. **ACTION:** FPOM will need to re-examine the language in the FPP that would require T12 outages to occur during the spring freshet. This increases the risk of PH1 operation and increased fallback with the levels of spill typically seen during the spring.
- 2.2.2.[Mar 22] NWP/NWW Critical Fish Passage O&M needs. Items with a wide range of ranks were discussed and this will be re-looked at next month. **ACTION:** FPOM will assess their agency rankings and send any updates to Mackey by 9 April.
- 2.2.3.[Mar 22] Lethal Removal – Update of the NEPA progress (Schmidt). **ACTION:** Mackey will follow up with Schmidt to ensure a written update (MFR) is provided to all FPOM members.
- 2.2.4.[Mar 22] SRWG. Ranking meeting is 19 April. **ACTION:** Lorz will get comments to Macdonald by Friday. Macdonald will send documents by next Friday.
- 2.2.5.[Mar 22] TDA AWS debris management. **ACTION:** Mackey will ping Ida Royer about this item getting on the SCT spreadsheet. *STATUS: completed on 10 March. Royer confirmed it is on the SCT spreadsheet.*
- 2.2.6.[Mar 22] BON Kelt Trigger. **ACTION:** Wertheimer and Lorz will co-chair for task group. *STATUS: task group has been established.*
- 2.2.7.[Mar 22] 20TDA10 MOC PUD Smolt Bypass Extended Outage. **ACTION:** Martinson will send MFR, biological testing plan, and photo link to Mackey for distribution. *STATUS: completed and posted to the FPOM website.*
- 2.2.8.[Feb 22] TDA velocity monitoring. **ACTION:** Project will pick the monitoring strategy and report back to FPOM. *STATUS: carry-over to April.*
- 2.2.9.[Feb 22] **JDA ladder temps.** **ACTION:** Grosvenor will distribute his report prior to next FPOM. *STATUS: carry-over to April.*
- 2.2.10. [Feb 22] **BON video stream.** **ACTION:** Morrill will set up follow on meeting with Peery and Derugin. *STATUS: completed. WDFW is waiting on a response from 4Peaks to Chris Perry. ODFW and proceed from there. WDFW and ODFW are exploring/discussing procuring/providing their own DVR based on the information Chris has provided. Morrill has another call scheduled today after FPOM with WDFW and ODFW.*

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

- 2.3.1.[Jul 21] **WA AWEP status update.** **ACTION:** Morrill will report back on the progress. The draft periodic status review for the American White Pelican is available for review at WDFW's publications webpage. **STATUS:** *This can be moved to completed action items.*
<https://wdfw.wa.gov/publications>
- 2.3.2.[Dec 21] IHR South fish ladder temp monitor broken, cannot calculate the differential. **ACTION:** Peery will update progress next FPOM. **STATUS:** *complete Peery & Mackey agreed to send MFRs when temp loggers go down.*
- 2.3.3.[Feb 22] BON Avian Lines. BON Fish will send photos of the spillway. **STATUS:** *complete*

3. Updates

3.1. NWW Updates

- 3.1.1.Upcoming maintenance/construction/research activities (previously coordinated MOC/MFRs).
- 3.1.1.1. 20 LGS 16 MOC Powerhouse Roof Repair. BUS linkage install scheduled for 4-8 April. Roof repair will start in June and go through August.
- 3.1.1.2. 21 LWG 08 MOC Trash Rake Crane Replacement (May 2022). No change.
- 3.1.1.3. 21 MCN06 Modified spill pattern for TSW removal. No change to the plan. van Dyke would like to know if the TSWs could be left in over the summer, noting survival seems to be the driving force for removal. Peery explained that the process for removing the TSWs is less arduous this year than last year. There should be a shorter spill outage. van Dyke appreciated the shorter outage but noted that unexpected issues may arise. Lorz said the TSW is not an RSW and there is not a supported jet so survival is lower without the supported jet. He recommended trying to look at previous data and breaking out the spillway specific data. Bettin said the removal date isn't set yet since it could be dependent on flows. Peery said that is true but the time of year is based on survival estimates. Bettin said the survival during high flows is lower without the TSWs so the project needs to be aware that they may remain in longer due to the flows or due to debris loads.
- 3.1.1.3.1. Crane 6 and 7 are back in operation. Hoist 6 is still OOS. June is still the estimated RTS date. The spill patterns will be evaluated and adjusted as needed. Observations will occur 10 April.
- 3.1.1.4. LMN Spillbay 3 repairs. The repairs will occur in September. This spring a contractor will outfit the trunnion bushing to measure the friction co-efficient again. Results are expected a month later. In September the gate will be injected with lubricants to see if that reduces the friction. If it works, all gates will be lubricated.
- 3.1.1.4.1. **There will be no spill through bay 6 due to risks to the gate and the frequency of closing the gates for fish barge loading and transport.** Lorz walked through the process – a sensor would be placed on the gate; the gate would be opened. Why could the gate not be dogged for the spring season? He questioned why the barge operator couldn't get across the tailrace with one gate open. Lorz suggested that it might be a better trade to give up barge transport and keep spill. Lorz would have liked more discussion with the Region. Peery noted that Lorz may have been the only person not in the discussions as there had been a lot of dialogue on this issue. Peery noted that the concerns were spill patterns and egress conditions. Peery said Ryan Laughery doesn't believe there will be a big impact on TDG. Lorz said taking a bay OOS is not going to improve tailrace egress conditions, especially a center bay in a uniform pattern. He doesn't want to take the risk if there are other options to make a better choice, such as give up barge transport at LMN for 2022. Lorz also noted that safety is a legitimate concern, but it has to be opened for testing so why not dog

it? Lorz and Morrill asked about the risk of testing in April but not doing repairs until September. If something goes wrong, this will impact spill all season. Peery noted that legitimate concern. He also stressed that this is an experimental endeavour to begin with. The Project is turning a greaseless bearing into a greased bearing. **ACTION: Peery will check option to conduct testing in September just prior to repair work vs. in March.**

3.1.2.JFF Early Start – MCN March 1st. MCN didn't start on 1 March, there is a MFR later in the agenda. St. John provided the following collection data: mostly sub-yearlings coming through. Numbers of fish/species - 144 sub-yearling CH, 16 unclipped STHD, 4 clipped STHD, 12 yearling CH since opening. Also saw 5 PIT tagged fish - 3 wild STHD and 2 orphan tags.

3.1.3.Biological Services reports. St. John requested input from FPOM on who would like to receive the contract report as well as the normal weekly report. **ACTION: FPOM will confirm which reports they would like to receive.**

3.2. NWP Updates

3.2.1.Upcoming maintenance/construction/research activities (previously coordinated MOC/MFRs).

3.2.1.1. 21BON001 MOC Navigation Lock 1 (old navlock) Bridge Replacement scheduled for CY 2023.

3.2.1.2. 19TDA04 MOC Crane rail Replacement winter (on going work). No update.

3.2.1.3. 20TDA10 MOC PUD Smolt Bypass Extended Outage. Martinson reported that the construction continues. Getting ready to set the switchgate. Expect RTS by 1 April. Debris and mortality occurred at the end of the dewatering structure last week. van Dyke asked that the photo link be added to the FPOM website. **ACTION: Martinson will send MFR, biological testing plan, and photo link to Mackey for distribution.**

3.2.1.4. 18JDA02 MOC Trash rack replacement. Fabrication is complete. Some difficulty with the lifting beam so there is about a month delay.

3.2.1.5. 20JDA04 MOC STS crane replacement. Still in the design phase.

3.2.1.6. 22JDA01 MOC NFL Stilling Well Replacement. 1 adult STHD and 2 juveniles. RTS the morning of 10 March. JDA-N is back in criteria.

3.2.2.BON Aqui-S long term solution. Derugin spoke with EPA office on 9 March. Still working on a general permit. May have confirmed a dilution number so BON can start working on a system to meet that. No major changes for researchers in 2022.

3.2.3.BON kelt trigger (Wertheimer). Wertheimer reminded everyone of the 2-2-20 trigger. One kelt was seen on 8 March. There has been involuntary spill that has likely moved some STHD. Lorz asked if there is involuntary spill through the B2CC, does the trigger need to be re-evaluated? Bettin said NO. FPOM was on-board with re-looking at the trigger. Bellerud suggested a task group might look at water trading to get it through BPA a little easier. Bettin said the water trading might be more difficult since there isn't a guaranteed open date. **ACTION: Wertheimer and Lorz will co-chair for task group.** Wertheimer is excited about his new assignment. What does the trigger mean when you hit it at BON? What is going on upstream? WDFW will participate.

3.2.4.TDA AWS debris management. No funding so no updates at this time. Keeping the existing protocols of turning the AWS off to float trash if needed. Fish Unit outages are not scheduled until 2026. This gives time to get the AWS debris issue dealt with first. Lorz said it is important to remind SCT to get it on the budget. **ACTION: Mackey will ping Ida Royer about this item getting on the SCT spreadsheet.**

3.2.5. TDA trunnion pin. Gate 9 trunnion would be part of a larger project to completely rehab Gates 1-9. SAP shows Start in 2031, Construction 2034.

3.2.6. JDA north pump #4. Still OOS. Still working on the lower guide bearing issue. The motor is out.

3.2.7. JDA spill bay 10. Will still need to be operated manually. Lots of people have been looking into the issues but no solutions yet.

3.2.8. JDA N elevator #4. Working from the 4th floor to bottom but will not take you to the upper deck.

3.3. NWS (Seattle) – Goetz is retired. No other updates.

3.4. Research/FFDRWG updates.

3.4.1.NWP FFDRWG. Macdonald noted that the FFDRWG website has been updated.

3.4.2.NWW FFDRWG. Next meeting is 28 April

3.4.3.SRWG. Macdonald will send revised draft research summaries next week. Ranking meeting is 19 April. **ACTION: Lorz will get comments to Macdonald by Friday. He also asked about PIT monitoring being discussed in SRWG. Macdonald confirmed the PIT monitoring and will have something to send next Friday.**

3.5. RCC update.

Derugin asked if there is a chance of spill if flows are 274kcfs. USGS will be in the spillway forebay for biological sampling. If there is spill, USGS will not be able to conduct their sampling. USGS is expecting to start 14 March.

Project	Previous Day (2/9) Average Outflow (kcfs)	5 Day (2/14) Forecasted Inflow (kcfs)	10 Day (2/19) Forecasted Inflow (kcfs)	Forecasted Inflow Low/High (kcfs)
LWG	34	46	64	31 3/11 80 3/16
MCN	179	188	242	169 3/11 248 3/17
BON	194	201	265	181 3/12 274 3/17

Table 1. NOAA Northwest River Forecast Center inflow forecast.

3.6. Fish Count Program update (Peery, Wertheimer). Currently have daytime video counts at BON, TDA, MCN, and LWG. 1 April start live counts at all projects.

3.7. Pinniped update

3.7.1.Bonneville Dam. Less than five Steller sealions seen during point counts. When 20 animals are observed, full monitoring will occur.

3.7.2.Willamette Falls. van Dyke reported that monitoring has occurred and none have been seen recently. There were some seen in the lower Willamette in mid-February. Not much planned for trapping at this time.

3.8. Lamprey update

3.8.1.BON – lamprey orifices in BI have been smoothed. Only two or three orifices were added in the serpentine section due to unforeseen difficulties.

3.8.1.1. Anticipate operating the LFS this coming season. Swank asked for Derugin’s opinion of the LFS. Derugin said it works and it isn’t a problem for the Project. Swank asked if BON has ideas about how to improve the collection efficiency of the LFS. Conder is ok with throttling down with the valve limits but not going above. Derugin said the limit was 60% and it did catch fish. Going above that limit results in the system rattling.

3.8.2.TDA – Randall said the 60% DDR is done for the TDA-E LPS installation. Macdonald said the NWP lamprey improvement projects are now under Jeremiah Woodard (PM).

3.8.3.JDA – work to realign the grating was completed. 90% DDR for JDA-N LPS improvements should be coming soon. Plans and Specs (P&S) for weir caps at the JDA-S entrance weir will also be available.

- 3.8.4.NWW** – PNNL at LWG installing acoustic telemetry equipment for juvenile lamprey. Work is set to begin this spring. Couple of projects still in design phase – cooling water strainer hoods and rounded weir crest at MCN.
- 3.8.5.Lamprey Accords Work Group (Macdonald).** Meeting scheduled for the week of 14 March. Tags are in development for the LWG juvenile lamprey study.
- 3.9.BPA update.** Outage spreadsheet will be posted to the website.
- 3.10. Avian updates (10:30)**
- 3.10.1.** NWW – not counting birds yet. McNary avian deterrents funding line added to 2024 budget request.
- 3.10.2.** JDA – lines should be repaired before 1 April.
- 3.10.3.** TDA – No birds. No falconry expected this year, except as another experiment.
- 3.10.4.** BON – No update.
- 3.10.5.** Estuary – FFU is setting up for the season. Wertheimer will collect PIT tags from Macdonald. McDowell asked about the monitoring plans. Wertheimer said FFU will cover ESI, Rice, Miller, and Pillar and include the CAP flights. Peery said CAP will cover Blalock and Crescent islands. McDowell asked about the at-risk inland sites. Trachtenbarg said he is working on the MIPR. Hausmann said BPA has the option of doing the monitoring at the bridge but they hadn't been aware of the USDA hazing that will occur at the same time. Lorz suggested the hazing shouldn't be a problem for the monitoring, Hausmann agreed. Lorz said the PIT tags were critical to getting reach survival estimates. McDowell suggested we should just plan on maintenance on the Astoria Megler bridge every year (the painting job is expected to take 12 years).
- 3.10.6.** Lethal Removal – Update of the NEPA progress (Schmidt). Mackey said Schmidt is supposed to be on schedule. McDowell said USFWS hasn't seen anything yet. CRITFC requested a written response. **ACTION: Mackey will follow up with Schmidt to ensure a written update (MFR) is provided to all FPOM members.**
- 3.10.7.** Ringold pelicans. Morrill said he has been pushing hard on this issue. WDFW recognizes the issues but there is not an action plan yet. In 2021, most of the PIT tagged fish were released downstream from the boat launch. 2-5% of those tags released in the channel were found in avian sites, compared to about 1% of those released at the boat launch. McDowell suggested nighttime releases. Morrill said options are being considered.
- 3.10.7.1.** Grosvenor asked that Morrill remember the pelican issue at JDA as well. McDowell said no permit is needed for hazing pelicans but there can be no trapping or moving pelicans.
- 4. NWP/NWW Critical Fish Passage O&M needs.** FPOM discussed the rankings. Items with a wide range of ranks were discussed and this will be re-looked at next month, after FPOM re-evaluates their agency ranks. **ACTION: FPOM will assess their agency rankings and send any updates to Mackey by 9 April.**
- 5. Coordination/Notification forms (need concurrence/discussion)**
- 5.1. NWW**
- 5.1.1.MFR 22 MCN 01 OR Shore Ladder One Pump Operation.** No additional comments.
- 5.1.2.MFR 22 MCN 02 Delay in Early Start.** No additional comments.
- 5.1.3.MOC 22 LMN 01 North Shore Fish Ladder Debris Barrier Modified.** This was mostly complete during the IWW. Would now like to access the area within 100' of the fishway exit to install the remainder of the debris barrier. Lorz asked about timeline. St. John said he only has a range of "early April". If the work is during 1-3 April, there is less concern. St. John said there is no impact to spill, just boat noise within 100' of the fishway exit. FPOM concurred or provided no additional comments.
- 5.1.4.MOC 22 LWG 02 PNNL Receiver.** No additional comments or questions.

5.1.5.MOC 22 LWG 03 NavGuideWallCable. FPOM asked questions - How they are attached? Are they heavy enough? Are they being replaced often enough? No opposition to the MOC.

5.1.6.MFR 22LMN02 Fish pump 1 OOS. The pump returned to service 10 March.

5.1.7.MFR 22LWG04 T1 OOS. An alert of is an emergency outage came today from the project. When the outage will occur TBD and the MFR will be coming to FPOM soon. A MOC for a scheduled transformer outage will also be coming soon. Timing is critical as there needs to be little humidity and precipitation. The project is looking at Mar – Oct for the work. The work for T1a, T1b, and T1c each take a month. Bettin suggested there may be some pencil sharpening that could occur. Lorz asked if work on phases can occur simultaneously.

5.2. NWP

5.2.1.22BON001 MFR Units 11-14 OOS. No additional comments.

5.2.2.22BON002 MFR JMF Hydrocannon Outage. No additional comments. Updated MFR is posted to the website.

5.2.3.22BON003 MFR U11 STS Failure. No additional comments.

5.2.4.22BON004 MOC T12 OOS. Bettin mentioned there may be a need for a T11 outage in June/July. FPOM will look at the MOC and provide written comments. Conder, Lorz, and Bettin discussed the timing and risks with the proposed schedule. In the end, NOAA, Lorz, and BPA concurred with the MOC. The State's will provide comments later. **ACTION:** FPOM will need to re-examine the language in the FPP that would require T12 outages to occur during the spring freshet. This increases the risk of PH1 operation and increased fallback with the levels of spill typically seen during the spring.

6. Fish Passage Plan

6.1. The 2022 FPP went into effect March 1 and is available online at:

pweb.crohms.org/tmt/documents/fpp/2022/

6.1.1. NEW & PENDING Change Forms:

- 22MCN004 – Modified Spill Patterns (Peery). **Approved.** MCN will observe the pattern and make adjustments as needed.
- 22AppL003 – LMN Bird Monitoring (Griffith). **Approved.**

7. Task Group Updates.

7.1. Task Group Avian meeting (Cordie)

7.1.1.<http://pweb.crohms.org/tmt/documents/FPOM/2010/Task%20Groups/Task%20Group%20Avian%20Hazing/>

7.1.2.Waiting for the lethal take permit. Once the permit is in place, this task group can go inactive.

7.2. Task Group 15 Mile Steelhead Overshoots, TDA ITS operation dates. (Bellerud)

7.2.1.<http://pweb.crohms.org/tmt/documents/FPOM/2010/Task%20Groups/Task%20Group%20TDA%20ITS%20operations/>

7.2.2.No update this month.

7.3. Task Group Non-native Piscine Predation (Hausmann).

7.3.1.<http://pweb.crohms.org/tmt/documents/FPOM/2010/Task%20Groups/Task%20Group%20Non-native%20piscivorous%20fish>

7.3.2.TDA will move forward with removal of non-natives during dewater.

7.4. Task Group BON Kelt Trigger (Wertheimer and Lorz). Created at the 10 March FPOM meeting.