# CENWP-ODT-F

Subject: Final minutes for the 9 June 2022 FPOM meeting. The meeting was held via WebEx. In attendance:

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\*Called in for the Avian discussion.

## 1. Final decisions or recommendations made at this meeting

- **1.1.** May meeting minutes approved.
- **1.2.** 22 MCN 09 MOC Delay Removing TSW's -Concurrence. TSW's will be removed after flows drop below 300k.
- **1.3.** 22 JFT 01 Release Collected Fish at Lower Monumental Dam- Lorz, Ebel, and Morrill are supportive of going to bypass considering current high flows.
- **1.4.** 22TDA07 MOC Shed Placement at Westrick Park- No comments. Comment period ends 21 June.
- 1.5. 22TDA08 MOC East Ladder Weir 155 Rehab No comments. Comments due ASAP.

# 2. Action Items

## 2.1. NWW

- **2.1.1.**[June 22] Fish Count Program update (Peery, Wertheimer). **ACTION:** Bellerud will put together a draft summary of the fallback data for July FPOM.
- **2.1.2.** [June 22] 22LGS005 ASW Closure Criteria (NWW) ACTION: Bettin will send the performance report out for review.

# 2.2. NWP

- **2.2.1.** [May 22] NWP/NWW Critical Fish Passage O&M needs. No changes in ranking but there is an added item for BON. **ACTION**: FPOM Take a look at additional item and send Tammy the ranking before the June FPOM meeting. No responses.
- **2.2.2.**[June 22] NWP/NWW Critical Fish Passage O&M needs. **ACTION:** Mackey will see if trunnion pin would be appropriate for this list and report back next FPOM.
- **2.2.3.** [June 22] Estuary-ACTION: Krasnow will set up a work group for avian estuary actions.
- **2.2.4.**[June 22] Lethal Removal –**ACTION**: Madson will work with Schmidt to identify the cooperators and whoever would like to be included in a NEPA task group.
- **2.2.5.** [June 22] 22JDA07 MOC Block Study Running SFL in Shad Mode for Ladder Cooling-**ACTION:** Grosvenor will get the channel velocity data with and without shad mode and report back to FPOM.
- **2.2.6.**[June 22] 22BON003 Channel Velocity (Derugin). **ACTION:** Wright will contact Conder for comment.

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

## 3.1. NWW

- **3.1.1.** [Apr 22] 22 LWG 04 MOC T1T2 Gasket Repair. [May 22] **ACTION:** Peery to consider month of October and review impacts, check on suggestions to spill change, and look through the record for actions done on T1/T2. *STATUS: Completed.* Peery reported findings via e-mail.
- **3.1.2.** [May 22] 22 LWG 05 MFR T1 Oil Fill Completed. Morrill asked how much oil level dropped since fill. **ACTION:** Peery will check on oil level and report back at the June FPOM. *STATUS: Completed*. Peery reported via e-mail that oil level dropped 2".
- **3.1.3.**[May 22] 20 LGS 16 MOC Powerhouse Roof Repair. Bettin asked about the schedule, he would like to do a field trip. **ACTION:** Peery will get an updated schedule to Bettin. *STATUS: Completed.* Peery is coordinating with BPA
- **3.1.4.** [May 22] Fish Count Program update. **ACTION:** Peery will check on the issue with jack counts. *STATUS: Completed.* Fish count contractor was notified.

## 3.2. NWP

- **3.2.1.**[May 22] Tule Counters. **ACTION:** ODFW/WDFW to send "in person" or remote count preference to Wertheimer. *STATUS: Completed.* Going to be in person. Working Covid protocols.
- **3.2.2.** [May 22] NWP/NWW Critical Fish Passage O&M needs. No changes in ranking but there is an added item for BON. **ACTION**: FPOM Take a look at additional item and send Tammy the ranking before the June FPOM meeting. *STATUS*: Nothing received. Send your ranking in when you get a chance.
- **3.2.3.** [May 22] Review of TDA Avian update 2020-2022 graph. **ACTION**: Cordie will try to get an end of May-early June DCCO nest count at the towers. *STATUS: Completed*. The project counted 52 DCCO nests after May FPOM and 53 nests counted yesterday. Nest removal discussed.

# 4. Updates

# 4.1. NWW Updates

- **4.1.1.**Upcoming maintenance/construction/research activities (previously coordinated MOC/MFRs).
  - **4.1.1.1** 20 LGS 16 MOC Powerhouse Roof Repair. Roof repair will start in June and go through August. Additional outage request covered in another MOC that just came out.
  - 4.1.1.2. 21 LWG 08 MOC Trash Rake Crane Replacement (May 2022). Work delayed.
  - **4.1.1.3.** McNary crane status. Cranes 6 and 7 are back in operation. Hoist 6 is still OOS. June is still the estimated RTS date. Still awaiting parts for hoist 6. No hoist in bays 2 and 16 being operated by cranes. Hoist 15 is out for repairs, Hoist 2, 6, 15, and 16 dogged off at static openings. FPP change forms sent out to rotate hoist usage. Lorz asked if there is a schedule of what's out and the plan for maintenance. Lorz is not prepared to agree/disagree to FPP change forms for MCN spill ops. Peery said there is a plan by 2034.
  - **4.1.1.4.** 22 LMN 01 MOC North Fish Ladder Debris Barrier- Installation pushed out to August. No change.

**4.1.1.5.** 21 IHR 15 MOC Unit 2 special generator testing. Work scheduled 15 Aug to 3 Sep.

## 4.2. NWP Updates

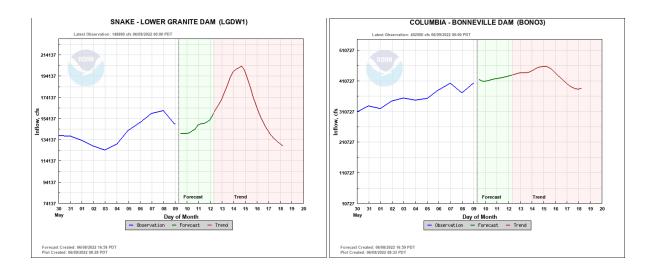
- **4.2.1.**Upcoming maintenance/construction/research activities (previously coordinated MOC/MFRs).
  - **4.2.1.1.** 21BON001 MOC Navigation Lock 1 (old navlock) Bridge Replacement scheduled for CY 2023. No update
  - **4.2.1.2.** 22BON004 MOC T12 OOS. Moved outage to 29 Aug-15 Sep.

- **4.2.1.3.** 22BON007 MOC U14/15 OOS for B2FGE testing. Work should be completed today, no issues.
- 4.2.1.4. 22BON009 MOC T11 BPA Outage. Moved outage to 18 July-5 Aug.
- **4.2.1.5.** 22BON011 MOC Validation Testing (Revised). No issues, work complete.
- 4.2.1.6. 19TDA04 MOC Crane rail Replacement winter (on going work). No updates.
- 4.2.1.7. 22TDA05 MOC Exit Boom Install. Planned for winter maintenance period. No update.
- **4.2.1.8.** 18JDA02 MOC Trash rack replacement. No update.
- **4.2.1.9.** 20JDA04 MOC STS crane replacement. Design phase.
- **4.2.1.10.**22JDA03 MFR South Fish Turbine #2 OOS. Prep work done. They will start pulling bearings next week. Lorz asked for the estimated RTS. Grosvenor said they are hoping for RTS in a couple of weeks.
- **4.2.2.** TDA AWS debris management. Cordie said there was funding for this to restart in July, more information will come next month. Lorz wants to know if this will go through FFDRWG. Cordie said yes it should.
- **4.2.3.** 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.
- **4.2.4.** JDA north pump #4. OOS for entire year no money to repair. No updates.
- **4.2.5.** JDA spill bay 10. Will still need to be operated manually. No updates. Still in manual
- **4.2.6.** JDA SFL Temperatures. Forebay array in, additional probes in the ladder exit and downstream areas logging temperatures.
- 4.3. NWS (Seattle) updates. No updates.
- 4.4. Research/FFDRWG updates.
  - 4.4.1.NWP FFDRWG. No update.
  - 4.4.2.NWW FFDRWG. 28 July next meeting.
  - 4.4.3.SRWG. Next meeting tentative for end of June.
  - **4.4.4.2022 Research and Access requests** (Derugin) ODFW starting their steelhead tagging in a few weeks. Request letter from Tule counter group looking to install video recording in count station. CRITFC lamprey trapping began this week.
    - 4.4.4.1. BON Aqui-S long term solution. No major changes for researchers in 2022.

### 4.5. RCC update.

#### Table 1. NOAA Northwest River Forecast Center inflow forecast.

Project	Previous Day (6/8) Average Outflow (kcfs)	5 Day (6/13) Forecasted Inflow (kcfs)	10 Day (6/18) Forecasted Inflow (kcfs)	Forecasted Inflow Low/High (kcfs)
LWG	153	178	128	128 (6/18) / 200 (6/14)
MCN	395	415	373	365 (6/17) / 437 (6/14)
BON	397	437	385	383 (6/17) / 457 (6/14)



Lorz asked about spill fluctuations and if this is balancing flow and why it's different from FPP. Cordie said the forebay has been changing drastically. Mentioned the teletype for John Day operators addressing barge traffic requests for spill reduction. Operations did not have enough load and needed to increase the spill pushing it outside the wall. Lorz mentioned flow volume and the spill pattern in the FPP and what's being reporting on the spillbay opening doesn't match the table. Lorz said survival outside the wall is poor and is concerned about using bays clear down at 20, 21 because of maintenance issues with bays 9-11. Conder asked if the trunnion pin and wire rope issues were on the Critical Unfunded list. Mackey said no they were not. Conder said we may need to elevate because of these types of scenarios. Cordie said 1-8 is his biggest worry maintaining operation as they all have the same type of trunnion pin. The Dalles O&M major rehab report may cover the gate 9 trunnion pin, but it wouldn't be done until the spillway crane is fixed. Morrill asked about using a barge crane. Cordie said a barge crane would never fit the budget. Cordie said due to the color of money there is never enough money to fix the spillway. Van Dyke asked about maintenance on bays 1-8. Cordie said there was maintenance being done but they need a reliable crane to complete everything. Minimal maintenance on other bays. Conder asked if an MFR was needed. Cordie said the OOS gates are in the FPP. Conder asked if the pattern was the one listed from the FPP. Bettin said that pattern has been in there for a long time. Conder asked about using a dam safety inspection. Bettin said water can still be passed so it would not qualify for that. Bettin said wire ropes are beyond their useful life Cordie said wire ropes have broken strands and indicate they can't use them, also there are bent strut arms. The spill bay on the very end creates undercutting on the apron and they do not want to use that bay anymore. Cordie replied in chat that hourly spill yesterday was >70% at times and that explains the unexpected patterns.

**4.6. Fish Count Program update (Peery, Wertheimer)**. Peery notified the contractor about the difference in jack counts between JDA and TDA, reviewing QC it appeared that there was overcounting of jack and undercounting CH. Night counts begin next week. Sockeye starting to show up. More CH at LWG than at LGS, Peery said it could be the result of fallback. Conder said Bellerud is looking into the pit tag data for fallbacks. Bellerud said the difference from morn to afternoon could be the transition in spill. Fallback is variable from 10 min to a couple of days before fish fallback making interpretation confusing. Twenty-one percent of re-ascensions detected in the RSW's. **ACTION:** Bellerud will put together a draft summary of the fallback data before next FPOM. Water temperatures are being recorded in all the key places in the

fishway, 50's in the river. Peery said that temperature reporting was not readily accessible realtime at LWG and IHR due to software glitch.

**4.6.1.**BON WDFW Tule counters. Counting is going to be in person. Working with Four Peaks for Covid protocols.

## 4.7. Pinniped update

- **4.7.1.**Bonneville Dam. No pinnipeds in the tailrace. Morrill said the crew wrapped work a week early.
- 4.7.2. Willamette Falls.

### 4.8. Lamprey update

- **4.8.1.**BON LPS- Optical counter install successful at BI. Programming and hookup being worked on and counts from all three flowing to Washington shore by the end of the season. Paddle counters operating. Tribes starting to collect at Bonneville.
- **4.8.2.** TDA- Setting up for tribal trapping. Gulls working powerhouse, suspect high numbers of juvenile lamprey passing.
- **4.8.3.** JDA- Started up north LPS and deployed south fish ladder trap. Silver will be up to deploy tube traps. Still working on PDT projects for north water supply. Porter said they will start trapping at TDA and JDA today or tomorrow.
- **4.8.4.**NWW- no adults yet. Updated strainer report posted.
- 4.8.5.Lamprey Accords Work Group (Macdonald).
- **4.9. BPA update**. Spreadsheet on the FPOM website. LMN needs to be adjusted change will be sent. Posted with other documents.
- **4.10.** NWP/NWW Critical Fish Passage O&M needs. No changes for June FPOM. ACTION: Mackey will see if spill gate 9 trunnion pin would be appropriate for this list and report back next FPOM. Lorz said include wire issues with bays 10,11,13. Mackey said some of these issues fall under the major rehab report as it gets expensive. Mackey said review how you ranked these items.

## 4.11. Avian updates (10:30)

- **4.11.1.**NWW MCN has gulls up over 400 (exclusively in the spillway) some grebes and a few AWPE, IHR has gulls, AWPE, DCCO about a dozen a day, LMN few birds less than ten, LGS few birds almost none, LWG 10-50 gulls, AWPE, and DCCO. Peery said LRAD is not hooked up at MCN yet. Krasnow asked if flow component is coinciding with increase bird predation. Johnson said his observation is high spill decreases predation.
- **4.11.2.**JDA Counts are 100-120 gulls below the wire grid, 40 AWPE on the island and 20 grebes in forebay. Shift in predation, with spill volume increase AWPE shifts to skeleton bays.
- 4.11.3.TDA Up to 200 gulls, numbers decreased recently could be from high spill or falconry. Some AWPE. Power council meeting on the 14<sup>th</sup> will have a presentation on falconry. Bellerud asked if there were bald eagles at TDA. Cordie said large numbers in the winter a few throughout the year. Cordie said long term plan is to trim shore hazing if falconry shows effectiveness. Krasnow asked about modifying the shallow area to keep birds from loafing there. Lorz said habitat modification got into who owns those lands and the Tribes considered those special lands. Lorz, commented on the level of hazing over the years.
- 4.11.4.BON Not many birds. More ospreys than gulls and DCCO combined.
- **4.11.5.**Estuary- Rice Island growing colony of CATE and RBGU. Miller/Pillar Island monitoring continues. 20 May and last few weeks intense Rice Island hazing. RBGU trying to put down eggs causing attraction. Rice Island has the largest concentration of SHLA. Laser was used at lower bowl. Could not increase the CATE egg take or use laser on the mainland. On May 24, SHLA were not in the area where terns moved in. Implemented other hazing tactics to move terns out. Concerned with gull egg take on SHLA. After aggressive hazing of CATE, SHLA were again seen in the habitat area. Lorz asked if something changed for CATE to be aggressively trying to get back to Rice Island this year, and if PIT tags were sown. Tidwell

said yes, 100 tags were sown. Skiles asked what would have been done to dissuade RBGU that could not be done. Tidwell asked for egg take for RBGU. No take permit for RBGU. Successfully worked around the gulls. Western Glaucus gulls depredated RBGU colony. Skiles asked about an egg take permit for gulls as well. ESI colony is starting to decline if not fail. Last flights counted less than 621 terns in the entire estuary. Work was kept in compliance for Rice/Miller/Pillar actions. Bald eagles around 20 on ESI. McDowell said in high flow years eagles focus on these super colonies. Krasnow conveyed a question of possible seeking limited lethal take of gulls at ESI. McDowell said estuary and project actions need to be separate as they are different. Gull take at dams is to lower predation on ESA listed salmonids while gull take in the estuary is to maintain CATE population. Studebaker said prior gull take was by OSU and, after the 2016 EA it was concluded it was not affective because of the number of gulls and the presence of bald eagles. Lorz said there needs to be a funding source prior to looking for a permit. Peery suggested a work group. **ACTION:** Krasnow will set up a work group for avian estuary actions.

- **4.11.6.**Lethal Removal Update of the NEPA progress (Schmidt) update slides posted. Draft EA, awaiting data from APHIS. Steps completed and next steps reviewed. TDA funds are dried up to continue the NEPA work this FY. Lorz is frustrated over the timeline. Mackey said operations is planning to create an FPOM task group to have regularly scheduled meetings and track do outs. Mackey said getting to the permit is the hold up right now. There are plans to seek other funding sources to keep NEPA work moving forward. Cordie said as a reminder, getting lethal take is not the solution it's just another tool to control gull numbers. We still need to look at LMIR as it is still an issue. **ACTION:** Madson will work with Schmidt to identify the cooperators and who would like to be included in a NEPA task group.
- **4.11.7.**Ringold pelicans (Morrill/Wertheimer). Release is a little earlier this year. Water is high no access to areas for hazing. Hoping to deploy the air cannon if suitable ground can be found. Morrill has a photo of the release site to post to the FPOM website. High water and high flows may help curtail predation in the channel.

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

#### 5.1. NWW

- 5.1.1.22 LWG 04 MOC T1T2 Gasket Repair -working with TVA doing some or all the work, they will be able to do the T1A phase, hopefully in November this year. More discussions on other phases to get them lined up for all that work. Avoid work in August this year. Morrill asked about October work. Peery said although project is nervous about November timeframe the thought was it is doable. Least fish impact in November.
- **5.1.2.**22 LMN 05 MFR Spillway Gate 7 Coupler -OOS for tightening loose couplers, working on best way to keep couplers tightened up.
- 5.1.3.22 LMN 08 MFR Spillway Gate 5 -RTS yesterday about 830.
- 5.1.4.22 LGS 05 MFR Juvenile Salmonid Mortality During Barge Loading
- 5.1.5.22 LGS 06 MOC Powerhouse Roof Repair- Additional Outage In order to complete some sections of the roof the contractor needs an additional outage. Requesting 1-14 August full PH outage from 1400-0600, units will return to normal operation from 0600-1400. Comments due June 23. Lorz asked if Unit 5 would be run speed no load at station service. St John said Unit 5 will not be back so they will be running Unit 6.
- 5.1.6.22 MCN 05 MFR Spill pattern adjust to inspect hoists.
- 5.1.7.22 MCN 06 MFR Spillbay 15 hoist OOS
- 5.1.8.22 MCN 07 MFR Spillbay 15 Troubleshooting
- 5.1.9.22 MCN 08 MFR Washington shore count station cleaning
- **5.1.10.**22 MCN 09 MOC Delay Removing TSW's -because of high flows delaying the removal of the TSWs. MOC still in open comment most comments were in an agreement. Once it gets

below 300k they can do the removal. Conder suggested an FPP change form that 300k trigger. Conder and Bellerud concurs.

5.1.11.22 JFT 01 Release Collected Fish at Lower Monumental Dam- Staying connected to the dock is risky at the current TW and water can get on the deck. Need to coordinate if fish can be picked up there during this high-water event. Lorz asked if switching to trucking would be best as high water may continue or discontinuing transport at this point and putting fish back in the river. Bettin said another option could be trucking to LGS and loading to barge. Ebel and Morrill are supportive of going to bypass. Ebel asked if there is a threshold spill. St. John said about 180-190 kcfs is the threshold. St. John will talk with the barge folks about loading concerns at LMN.

#### 5.2. NWP

- 5.2.1.22BON012 MFR U15 Bulkhead Smolt Salmonid Morts- No comments
- **5.2.2.**22BON013 MFR Bradford Island LPS Outage- No comments
- 5.2.3.22BON014 MFR Emergency WA Shore LPS Dewatering with AAR- No comments
- 5.2.4.22BON015 MFR PH2 Unit Operation and Increased Spill- No comments
- **5.2.5.**22BON016 MFR LFS Mortalities Lorz asked about timeline for decision to shut off the LFS. Derugin said flow is 20% right now to curtail overflow. Don't know if lampreys are moving through. Can't reach it by crane or boat. Derugin will notify FPOM when they figure out what the path forward is.
- 5.2.6.22TDA06 MFR East ladder 155 weir- no comments
- **5.2.7.**22TDA07 MOC Shed Placement at Westrick Park- No comments. Comments period ends 21 June.
- 5.2.8.22TDA08 MOC East Ladder Weir 155 Rehab- No comments.
- 5.2.9.22TDA09 MFR Gatewell 9-1 mort- No comments
- 5.2.10.22JDA05 MFR MU12B Orifice Gate Broken- No comments
- **5.2.11.22JDA06** MFR MU-1 Temporarily Taken Offline (STS Camera Stuck)- No comments
- 5.2.12.22JDA07 MOC Block Study Running SFL in Shad Mode for Ladder Cooling- Conder said it is not clear how this operation will reduce or prevent temperature differentials. Conder also wants to discuss the effect on lamprey. Grosvenor displayed/reviewed the combined shad mode graph (posted to the FPOM site). There is very little information on the ladder temperatures, only entrance and exit temperatures. There is a need for more information on temperatures from control section down. Conder said this does not address the ladder exit cooling and he is not supportive of this operation unless more information is provided. Grosvenor said that shad mode may improve the overall ladder temps. Grosvenor said this is an operational improvement that could be implemented next year. Morrill said the managers are keying in on the temperature differentials at the exit. Lorz does not want this testing to hold up moving forward on the cooling structure as this operation will not improve the exit section but acknowledges that it could improve temperatures in the rest of the ladder. Fielding said the cooling water structure will go to FFDRWG; he is the POC. Swank wants to know what the channel velocity is in shad mode and how it would affect adult lamprey passage. Swank said doubling the period from four to eight blocks would be good with the caveat to review effects on adult lamprey. Peery said in general it does not change the head, so the velocities are the same through the orifices just more water over the weir. Peery said there was no difference when looking at lamprey passage. Cordie asked why it's not run all year. Peery said most salmon prefer orifices unless the ladders become congested. Then they will go overflow. Derugin said they were looking at shad mode in the PDT for the redesign of the Washington shore flow control at BON and this data is out there. He recommended having a hydraulic engineer look at it. ACTION: Grosvenor will get the channel velocity data with and without shad mode operation and report back to FPOM.

5.2.13.22JDA08 MFR South Fish Turbine #1 Temporarily out of service- No comments.

## 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.PENDING Change Forms
    - 6.1.1.1.22BON003 Channel Velocity (Derugin). Discussed at May FPOM. Conder wants more time to review. Mackey asked if the project could just crank the flow meter out of the ladder when not in use. Derugin said that's a possibility, but he still has concerns with maintenance of the clunky old meters that can catch debris. Pending more review and discussion in June FPOM. ACTION: Wright will contact Conder for comment.
  - **6.1.2.**NEW Change Forms:
    - **6.1.2.1.**22LGS004 ASW Crest Elevation (NWW) When forebay op range goes higher the crest elevation needs to be raised by the same amount to achieve spill patterns that were modeled. Lorz thinks this needs more finessing. He needs more time to look at this.
    - 6.1.2.2.22LGS005 ASW Closure Criteria (NWW) When flows dropped below 50kcfs. Swank not in support. Ebel thinks more study is needed. Bettin said current flow conditions are driving this. Swank said study was based on the performance reports. ACTION: Bettin will send the performance report out for review.
    - 6.1.2.3.22MCN005 Reduced Auto Operation of Spillway Hoists & Cranes -Project is trying to find ways to extend the life of old equipment. Peery is open to comments and more discussion. Lorz said he is concerned about egress, to find a better way to address these issues. Swank asked if the project was going to deem it a safety issue and go ahead with it regardless of the FPOM decision. Johnson said bay 15 is also in a bad way. Morrill said level of frustration is high and the lack of the ability for the Corps to get funding to fix these issues is scary. This continuing pattern is creating major issues for the region. Peery said cranes were underrated for the work and they weren't designed for the wear and tear of current operations.
  - **6.1.3.** Turbine operating tables updated by HDC. Recalculating efficiency of turbines based on better methodology. (Mrozek) FPP is in the process of being updated.

## 7. Task Group Updates.

- 7.1. Task Group Kelt Trigger (Wertheimer and Lorz).
  - **7.1.1.**Task Group meeting following July FPOM. Surface passage routes for kelts at B2CC and The Dalles IT sluiceway.