

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 23 April 2015 FFDRWG meeting.

The meeting was held in NWD Columbia Room, Portland OR. In attendance:

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Kiefer, Medina, Richards, Schlenker, and called in.

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

1. Final Actions or recommendations from the 23 April 2015 NWP FFDRWG.
 - 1.1. BON Cascade Island, FGE and pinniped issues. We have attraction flow at CI entrance and are just below criteria. FGE test will be delayed a couple of weeks. We will continue to monitor pinniped predation.

- 1.2. Rerecich had to step out to work on FGE. FFDRWG was diverted to a discussion about MFR 15TDA03 and the need to take both fish units out of service for five hours each on 7 May. The Region recognized the need to have the brushes inspected and repaired and expressed not much concern about the work.
 - 1.3. The fish managers are all on board with the JDA adult ladder PIT detectors. The Action Agencies need a bit more time to consider this project. NWP plans to have a clearer path forward by the June FFDRWG.
2. Action Items from the 23 April 2015 FFDRWG Meeting.
- 2.1. TDA Back up AWS. **ACTION:** Rerecich will draft a MOC, including the proposed schedule and schedule a special FFDRWG or FPOM to further discuss the construction plan.
 - 2.2. JDA-S lower weirs. Fredricks said we may see more focus on JDA-S in the future, especially given the dry, potentially warm water year we are looking at for 2015. Fredricks mentioned a letter report from Matt Kiefer (U). **ACTION:** Rerecich will send that letter report to NWP FFDRWG. NWP needs to figure out the path forward since there is no team assigned to investigating this issue further.
 - 2.3. Tackley talked through the first v second tier LPS tasks and priorities, based on special FFDRWG meeting and other considerations. **ACTION:** Tackley will distribute a summary table (with notes from FFDRWG and current project status) to FFDRWG.
 - 2.4. Next meeting was scheduled to be 4 June but there is a conflict with SRWG. **ACTION:** Tackley will initiate a Doodle poll to identify possible June/early July FFDRWG dates.
3. **Outstanding Action Items from Last FFDRWG Meeting (5 February 2015):**
- 3.1. Lamprey LPS prioritization discussion. **ACTION:** Tackley will schedule a meeting with FFDRWG in March. **STATUS: Complete. Meeting was held on April 1.**
 - 3.2. JDA overflow PIT tag detection. **ACTION:** Eppard will have a hydraulic and structural engineer look at the design. Feedback will be provided back to the Region. **STATUS: Design has not been reviewed.**
 - 3.3. BON performance standards meeting. **ACTION:** PM-E will schedule a meeting to discuss BON performance standards, likely late March. **STATUS: Meeting has not been scheduled. Scott Fielding is new POC on planning BON performance standard studies and will work on scheduling this meeting through SRWG. Fredricks said pre-proposals should not go out until the performance standards meeting occurs. Eppard explained that Fielding will be working on this but his workload is pretty full right now so there hasn't been time to prepare for this meeting. Fredricks stressed that this discussion needs to occur and there should likely be more than one meeting. Definitely need to have this discussion prior to the prioritization meeting on 4 June. This discussion needs to center around the acceptance of the tests and whether additional testing is needed. Conder asked if the FGE mods will be ready for the 2016 performance test.**
4. Added items on the agenda.
- 4.1. BON Cascades Island FV5-4 failure. **See MFR 15BON03 for more details.** Royer reported that the valve pit was re-watered on Wednesday so FV5-3 is operating in manual. The entrance differential is just below 1.0' and with some adjustments, the plan is to get the entrance up to 1.0'. **We have attraction flow at CI entrance and are just below criteria.**

6.2.1. Zorich added that FFU will be operating the LFS this year. The plan is to have it on intermittently throughout the season and test a variety of operational settings.

6.2.2. Tackley talked through the first v second tier LPS tasks and priorities, based on special FFDRWG meeting and other considerations. **ACTION:** Tackley will distribute a summary table (with notes from FFDRWG and current project status) to FFDRWG.

7. The Dalles East Adult Fish Ladder AWS Backup System. Rerecich reported that comments are due back on 24 April (tomorrow). He said he has received verbal comments from Fredricks but no other comments. Rerecich said the team has asked for TDA-E to be dewatered for the entire IWW period. This may result in pushing TDA-N dewatering into November or have a dual ladder outage. The construction schedule has the forebay work completed during the IWW period but there may be some protrusions and bedrock clean-up in March. There would be about 10 days total (3 days/ 30 foot section) when this work would occur. Rerecich needs to have these days defined so they can be included in the contract. Van Dyke asked why this work couldn't wait until next winter. Rerecich explained that this work needs to be completed prior to the next IWW period. NWP FFDRWG expressed concern about having TDA-E out for two full seasons. **ACTION:** Rerecich will draft a MOC, including the proposed schedule and schedule a special FFDRWG to further discuss the construction plan. NOAA and CRITFC had questions about the need to have TDA-E OOS for the entire second winter season.

Rerecich had to step out to work on FGE. FFDRWG was diverted to a discussion about MFR 15TDA03 and the need to take both fish units out of service for five hours each on 7 May. The Region recognized the need to have the brushes inspected and repaired and expressed not much concern about the work.

8. John Day North Ladder AWS pumps. Richards said the pumps are currently working, except for #4, which will be re-designed. Zyndol said we have 70% fish passage through JDA-N right now. Richards said the re-design of pump #4 will have implications for the other pumps as well. Lorz asked about cost-sharing between NWP and the contractor. Richards said the failure analysis found that the problem was a design flaw. She was unsure how Office of Legal Counsel will proceed with pushing the contractor to bear the full cost of the re-design.
9. Overflow weir removal at John Day South Ladder. Tackley said this is on the lamprey minor mods spreadsheet. Tackley said he talked with Langeslay and Langeslay thought some of the weirs might be structural support. There currently is no PDT for this so it may need to go to SCT. Fredricks said we may see more focus on JDA-S in the future, especially given the year we are looking at for 2015. Fredricks mentioned a letter report from Matt Kiefer (UI). **ACTION:** Rerecich will send the letter report to NWP FFDRWG. Fredricks would like to look at passage and water quality at JDA-S to make sure there are no fish passage issues here. He stated that the north ladder often passes a greater percentage of fish than at other similarly configured dams. **NWP needs to figure out the path forward since there is no team assigned to investigating this issue further.** Cordie said FFU had some reports on JDA-S. Fredricks suggested there were reports that are not out though and those are the ones he is concerned about. Basically, it is a good time to take a look at the ladder again.
10. BON FY16 Performance Standard Evaluation planning. Scott Fielding is new POC on planning BON performance standard studies and will work on scheduling this meeting through SRWG. Fredricks said pre-proposals should not go out until the performance standards meeting occurs. Eppard explained that Fielding will be working on this but his

workload is pretty full right now so there hasn't been time to prepare for this meeting. Fredricks stressed that this discussion needs to occur and there should likely be more than one meeting. Definitely need to have this discussion prior to the prioritization meeting on 4 June. This discussion needs to center around the acceptance of the tests and whether additional testing is needed. Conder asked if the FGE mods will be ready for the 2016 performance test.

- 11.** Bonneville Adult Fish Facility Mods. Royer reported the AFF is watered up and working. The After Action Report (requested by FPOM) is in progress.
- 12.** John Day North Ladder PIT feasibility. PSMFC provided a powerpoint presentation. Livingston talked through the proposed design. The new design requires the top six inches of the weir notch be removed and replaced with the antenna. The only change to the weir will be the chamfer, otherwise the orifice and weir notch dimensions would remain as they are. FFDRWG asked questions about the confidence with only two weirs outfitted. Warf said TDA has the highest detection efficiency and there are only two weirs there. The magic lies in the ferrite tiles. Warf said each antenna would have its own transceiver. These are paid for by BPA. There would be eight transceivers per ladder. Installation of the antennas would take about 3 days however, the entire process would take a minimum of 4 weeks per ladder. The first step (3 to 4 days) would be to remove the concrete and take exact measurements of each location. The second step (2 weeks) would be to fabricate the antennas to the exact weir wall dimensions. The third step (3 days) would be installing the antennas. The final step (2 days) would be installing the antenna cable conduits. Installation could be done during the IWW period. If rebar is hit during concrete removal, the rebar could be cut out and not impact the detector. FFDRWG expressed some concern about removing rebar. The engineers in the room suggested it may not be a problem if it doesn't impact the structural support of the weir and the weir (or ladder floor) doesn't crack; NWP structural engineers will still need to sign off. PSMFC gave many examples of where they have cut into weirs and penetrated weirs with conduit.
 - 12.1.** FFDRWG expressed concern about the chamfer dimension change. The chamfer will be thicker and may impact the hydraulics. Fredricks asked about having an unmodified weir between the detectors. Brower suggested below the count station has good flow; maybe there is another location that has similar flow conditions. Chase said there wouldn't be a problem having the detectors further apart. Fredricks said there is a greater chance that fish could turn around between antennas if they are too far apart as opposed to on weirs that are next to each other.
 - 12.2.** Livingston said the detectors are bolt in place structures that come pre-assembled. The cost per ladder is about \$174K. Both ladders could be completed within one normal IWW period. This includes the concrete cutting and more complex nature of JDA weirs. This cost does NOT include NWP engineering costs.
 - 12.3.** Fredricks asked about location. PSMFC said near the count window, where there are catwalks that access the weirs. Skalicky suggested one at the entrance and one at the exit so lamprey delay could be tracked. Fredricks said that is a different issue. The point of this system is to provide redundancy but he understood the desire to have lamprey detection as well. Lorz suggested one weir on each side of the JDA-S count window. The north ladder doesn't have overflow weirs upstream of the JDA-N count window. Fredricks suggested PSMFC come back with recommendations for the best locations.
 - 12.4.** Tackley went around the room asking the agencies where they stood on JDA detection. BPA is not yet 100% on board with detectors at JDA. Fredricks said this is on the FY16 spreadsheet for ranking this summer so a decision needs to be made soon. Eppard said this project could probably be kicked off with FY15 funds. This would include deciding

if this is a new project or part of an existing one and there is a process to follow. NWD still needs to approve. Eppard plans to talk to I. Chane (NWP CRFM PM) about moving this forward. Van Dyke said this sounds like a project that could provide a lot of information and ODFW would like to see it go forward. **The fish managers are all on board with the detectors. The Action Agencies need a bit more time to consider this project. NWP plans to have a clearer path forward by the June FFDRWG.**

- 12.5. Brower showed a 3D picture of the weir notch detector. He noted the screw heads were at an 82 degree pitch and will be completely countersunk. His fancy drawings included the threads on the screws. FFDRWG was suitably impressed with the graphics. Meyer would prefer the side plate extend above the water elevation. The aluminum plate is ¼” and could impact the plunging flow of the water.
13. B2-FGE. Rerecich reported that a trigger has been developed that will result in canceling testing due to pinniped predation and low flows. If three units cannot be operated, then the study will cease until May.
14. NEW: Bonneville B1 Ice and Trash Sluiceway (ITS) PIT detection to improve precision of reach survival estimates. Fredricks said detectors in the ITS would help bolster reach survival studies. He said this seems like low hanging fruit. There are five entrances into the ITS, three move and two are fixed at sill level. Tackley used Google Earth to determine that the slots are about 20’ wide. Whatever goes in the ITS needs to be durable due to debris loads. FFDRWG agreed that something is probably better than nothing. PSMFC said they had been contacted by BPA about this project. They are scheduling a site visit with B. Hausmann. Chase asked if the BON ITS channel can be dewatered. He noted TDA ITS cannot be dewatered. Bissell said the ITS can be dewatered and it will be dewatered later this summer when the end gate is replaced. More discussion about the location and next steps occurred by several different groups of people at the same time. The bottom line being that PSMFC would develop some independent ideas for implementation (as they have for the JDA adult PIT detectors).
15. Bonneville B2 Fish Unit Trash Rake. Rerecich noted that there are pictures in the update form (available on the website). BON is finishing up welds on the perf plate and it should be ready on 23 April (today). Neither BON biologist could tell us if it was truly ready for use though. It was noted that Lorz is now able to retire since his Tom Lorz Memorial Trash Rake is complete. Lorz said we need a test rake first. FPOM will be watching to see how often units are floated once the new rake is commissioned. Lorz asked if dredging is going to occur in front of the fish units. Mackey noted that the dredging should be included in the budget proposal every year; how the Project prioritizes dredging is something we can discuss in FPOM. The FPP recommends soundings taken in one FY and dredging occurring during the following winter during the appropriate year for the ladder outages.
16. B2 Orifices. No update at this time.
17. Turbine Survival Program. Fredricks reported that ERDC folks are now shifting to a full bead assessment of the BON Second Powerhouse turbine model with a data review meeting scheduled for some time in September. The team is also evaluating data to make sure the model is accurately reflecting what is actually occurring at the Project.
18. Next meeting was scheduled to be 4 June but there is a conflict with SRWG. **ACTION:** Tackley will initiate a Doodle poll to identify possible June/early July FFDRWG dates.