

MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 06 April 2017 FFDRWG meeting.

The meeting was held at the USACE office in Portland, OR. In attendance:

| Last | First | Agency | Email |
|-----------|-----------|---------|--------------------------------------------------------------------------------------------|
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On the phone: Baus, Conder, Gallion, Keifer, Medina, Meyer, Richards, and VanDyke.

All Documents can be found at:

<http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>

1. Final decisions made at this meeting.
 - 1.1. April FFDRWG minutes were approved.
 - 1.2. AFF Adult Lamprey Trap - The agencies concur with the design concept and the location. There is still concern about the width of the pipe.
 - 1.3. ACTION: Tackley will look to see if 12" was looked at already and Lorz will confirm with the lamprey specialists to see if the reduction would cause a problem
2. ERDC 2018 Spill Operations Planning Update (Eppard/Askelson/Ebner) – The tentative schedule for ERDC trips is: COE only trip in July and outside agencies trip the week of

18 September for TDA and JDA. NWW wants the internal and agency trip to be at the same time but NWP wants two different trips. The schedule will not be flexible due to all the modeling work going on.

2.1. TDA - TDA modeling will focus on increased spill between spill bays 1-8 at low tail water that could create a sheet flow on the shelf. The team needs to look at how low the forebay of BON can go before this sheeting occurs. There may be no issue at all but the team has never modeled with fore bays below the standard 74'. Fredricks would like a meeting in advance of the trip to go over what conditions they will be looking at during the model trip. The plan is to start the modeling at 64kcfs spill and work from there. The issue is testing conditions with a forebay lower than the previous testing (FB 64-73). If necessary, a soft constraint could be considered for a BON forebay of 74'.

2.2. BON- The issue at BON is that there is a slightly higher Q with a lower tail water in combination with the impacts of the 14' and 7' deflectors. The hope is that the existing BON spill pattern works for a lower tail water but the question of needing two spill patterns based on tail water remains. Ebner's main concern is that the outside flows create strong eddies in the center that will entrain juveniles. There is no data for testing under low tail water. Ebner also wants to make sure that rocks aren't moving under lower flows and measure the shoreline velocities. The minimum spill issue with the B2CC should be looked at too since everyone will be down at ERDC any ways. The testing will be at spill levels of 100, 125 and 150Kcfs. Ebner explained that if rocks move into the spill basin then they have to be removed because it is a dam safety issue. Preventing rocks from entering the basin is a much better alternative to removing them.

2.3. JDA – NWP is working with ERDC to get a new physical model. The model will be 1:45; the science behind this size will be documented. The 1:80 scale model doesn't model the entrainment from the flow detector in addition it has some powerhouse issues. This model is quite large but going any bigger wouldn't fit down at ERDC. The modeling will only be the tailrace not the forebay. The model ends between the islands and the boat ramp. The goal for completion is 1 Dec but 1 Jan is more realistic for a working model.

3. Turbine Survival Program (Medina/Rerecich) – CRFM funding is tapering off for the TSP program. There is still funding for TDA modeling and the B1B2 report but no more after the next fiscal year. The team is looking at BPA for funding. Funding from FY18 will be used to update the executive summaries of the BIT report not to do an extensive update of the entire report.
4. Bonneville B2 FGE (Medina/Knowles/Rerecich) – The construction is completed. The study will be 2 years and the results should address the turbulence issues in the gate wells.
5. Bonneville B2 Orifices (Medina/Kuhn/Rerecich/Royer) – The team has finished the ATR. All comments have been included but the internal review has not been signed off on yet. The report should be out for agency review by the end of June.
6. John Day Avian Line Improvements – Phase II (Medina/Zyndol/Macdonald) Plans and Specs and Market Research for Phase 2 have been completed and the team is working with the Office of Contracting now. The project will included a couple of lines that collapsed in the last few days and a new carrier line. Funding is a concern with the new lines and it estimated at \$1.2 million. The project is looking at 1 or 11/2" lines. The grid will be the same but with improvements. The old lines would stretch in the winter and the project had

no way of tightening the ropes. The new wire rope sling system will have tensioners and the contractor will create a manual on how to maintain the grid. JDA will be able to do the maintenance. The project has had problems with replacing lines. A contractor would still need to replace the lines but improving maintenance will decrease the chance of them failing.

7. Bonneville Major Rehab (Cutts/Lynn/Rerecich) – The team is still maintaining the current schedule and are currently working on the engineering reliability of all the systems. The draft date for the Major Rehab Report is 30 September. The scoring system for funding depends on a cost basis ratio. This major rehab has been a pioneer in adding days out of compliance for environmental concerns and a story of why this is important to the region. FFDRWG members suggested adding liability costs or cost per fish. The report also looks at the bigger picture of how to repair structures for the next 50 years when they break and how to prioritize equipment.
8. The Dalles Fish Unit Turbine Rehab (Bluhm/Schroeder/Rerecich) – Bluhm is taking over for Turaski. The project is on track to finish the Criteria and Constraints Report by 19 June. This report will be comprehensive look of improving the attraction flow for the TDA east fish ladder.
9. Lamprey Passage Structure (LPS) and Minor Mods (Turaski/Schroeder/Walker)
 - 9.1. AFF Adult Lamprey Trap - [Handout from Schlenker] The trap will resemble an LPS located at the exit of the AFF. Schlenker explained the hydraulics of the trap. The clearance of the pipe is actually 5' even though the diagram say minimum of 3' and should have a small effect. The orifice is 27" from the wall and should have no effect from the pipe. The velocity around the pipe went from 0.8 to 1.0 fps which is within criteria. Fredricks asked if the width of the pipe could be shortened to 12" not 18".
ACTION: Tackley will look to see if 12" was looked at already and Lorz will confirm with the lamprey specialists to see if the reduction would cause a problem. The agencies concur with the design concept and the location. The sluicegate problem has already been addressed by the BON project.
 - 9.2. LPS and Minor Mods – (Turaski) The construction contract for BON LPS extension at BI and the O&M improvements at CI will be advertised in next two weeks for construction in the next IWW. The pilot modifications at the serpentine section of BI will also be included. Weir caps for TDE and TDN entrances are being fabricated and trapping improvements at TDE for the translocation program are on-going. The construction of the LPS and flume system at WA SH is finishing up. The final Plans and Specs for BI orifice mods will be available when the bid package is assembled but the review and comment period is over. FFU reported that two suckers have died in the same orifice during the first week of their monitoring program. One salmonid approached and backed away. A dead fish could easily plug an orifice. It could plug the orifice. A full array of these orifices could cause problems. At TDA, a hoist is being planned but hauling containers of fish from the count station to the deck level is still a huge problem. A site visit will be scheduled in the next two weeks. JDA -N LPS will be the next project.
10. John Day North Ladder PIT Detection (Richards/Walker) – The contract has been awarded to High Point and the Notice to Proceed should be within the next two weeks. The project should be completed by 30 September.

Next NWP FFDRWG Meeting: 3 August 2017, from 09:00-12:00 (Location TBD)