

## MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 13 August 2014 FFDRWG meeting.

The meeting was held in NWP RDP 3<sup>rd</sup> Floor Meeting Room, Portland OR. In attendance:

Last	First	Agency	Office/Mobile	Email
Absolon	Randy	NOAA Fisheries		
Bettin	Scott	BPA		<a href="mailto:swbettin@bpa.gov">swbettin@bpa.gov</a>
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Eppard	Brad	CENWP-PM-E		<a href="mailto:Matthew.b.eppard@usace.army.mil">Matthew.b.eppard@usace.army.mil</a>
Fredricks	Gary	NOAA Fisheries	503-231-6855	<a href="mailto:Gary.fredricks@noaa.gov">Gary.fredricks@noaa.gov</a>
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Absolon, Keller, Lut, Richards, Scott, Wills, Zorich, called in.

Meeting 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 13 August 2014 NWP FFDRWG.

- 1.1. February 2014 meeting minutes were finalized.
- 1.2. BON FGE alternatives. **FFDRWG gave concurrence to move forward with further investigations in the alternatives but they want the data and details to look at more in-depth.**
- 1.3. Lamprey Minor Fishway Modifications. FFDRWG expressed concern with the loss of entrance weir depth. **The weir caps cannot affect the ability for the entrances to meet FPP depth criteria.**
- 1.4. BON AFF Mods. **FFDRWG agreed that the mods made over the winter appear to have helped with mortality.** Right now the question is whether or not the release pipes should be reattached. Rerecich needs to have a decision by early fall.

Fredricks said he wouldn't worry about putting them back on right away. He said don't throw them away but no need to rush to re-attach. **FFDRWG would like to see the rest of the data before making that decision.**

1.5. Next FFDRWG may be January 2015.

## 2. Action Items

### 2.1. Completed items from 6 February 2014.

- 2.1.1. BON FGE. Ebner said she will lay out a schedule as the season progresses and we have a better idea of what flows might look like. **STATUS: completed.**
- 2.1.2. BON FGE. Rerecich will update the MOC and send it to FPOM again. **STATUS: completed.**
- 2.1.3. JDA-S expansion joint repairs. Richards will send details and photos to Mackey for inclusion in the FPOM agenda. **STATUS: completed.**
- 2.1.4. BON AFF. Rerecich will set up a special NWP FFDRWG AFF meeting. **STATUS: completed.**
- 2.1.5. JDA Adult PIT. Eppard will schedule a conference call/meeting with NOAA Fisheries, NWP, and NWD to further discuss. **STATUS: discussion moved to SCT.**

### 2.2. Outstanding action items from 6 February 2014.

- 2.2.1. BON survival. NWP will put together some meetings to focus on the path forward for BON. The meeting will likely be in the March/April timeframe. Fredricks requested this be a COP discussion. **STATUS: Fredricks asked about the schedule. Tackley and Rerecich deferred to Eppard. Eppard will return to PM-E soon. Fredricks stressed the need to have a meeting sooner rather than later. PM-E will set up a meeting in September 2014.**

### 2.3. New items from 13 August 2014.

- 2.3.1. **BON FGE.** Stevens will provide Rerecich cleaned up data by the end of next week. Rerecich will send it to FFDRWG. A draft report will be available soon.
- 2.3.2. **BON FGE.** Rerecich will schedule a special FFDRWG once the cleaned-up data has been received and reviewed.
- 2.3.3. **Lamprey. WS LFS AWS.** Tackley will ask a hydraulic engineer (Schlenker or Askelson) to attend the next NWP FFDRWG to go through the conditions in the area.
- 2.3.4. **Lamprey. LPS development.** Tackley will schedule a meeting later.
- 2.3.5. **JSATS.** Eppard will send an email with the information for accessing the website.
- 2.3.6. **TDA AWS.** Rerecich will send the DDR out again.

## 3. B2-FGE (Medina/Stevens/ Rerecich)

- 3.1. Review/discussion of 2014 Hydraulic results. Stevens gave a .ppt presentation. The slides will be available at <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/FFDRWG/2014%20August%20FFDRWG/>
- 3.2. Stevens showed the velocity data from the 2013 field data and the CFD model at 15kfs (mid-range). Meyer questioned if the CFD data replicated the field data. The graphs looked different. Stevens explained that the scales are different and the colors are a little different but the hot spots show up in the same places. The view from the

field data is looking into the VBS, the CFD is from the VBS into the gateway. Rerecich explained that data is collected from Unit 14 and Unit 15 because they provide the best comparison between units since the flow is more direct into the units. 2013 data goes as high as 17kcfs. 2014 data is the first 18kcfs data collected. Stevens walked through more slides showing velocity and turbulence at baseline 15 and 18 kcfs, plate at 50% and 18 kcfs. No field data on the 25% plate.

- 3.3.** Alternatives evaluation and recommendation for DDR. Stevens explained the flow control plate is recommended as the primary flow control method. He noted the different slots may have different methods. Along with the plate, there may need to be a modified TRD to address turbulence. He also said the team may investigate modifying upper panels on the VBS to reduce/eliminate hot-spots. Fredricks said the plate would need to be between 25-50%. He also recommended dumping the TRD. The team recognized the need to modify the TRD to be less labor intensive. Meyer asked how the team would determine if the C-slot needed a plate or not. Rerecich and Stevens explained the goal for A-slot and suggested if C-slot had similar conditions without a plate, then a plate wouldn't be needed. Meyer asked which slot was biologically tested. Rerecich explained the history of the testing and how the C-slot doesn't look as turbulent as the A-slot. There is a trade-off between flow control and guidance. He said he would like to preserve as much guidance as possible so if the C-slot doesn't need to be treated, there may not be a need to go to that expense and effort. C-slot field data has not yet been evaluated. Medina asked for concurrence from the Region to further investigate the proposed alternatives. He said the team would like to get something ready for testing in 2015. Fredricks asked for the data and a direct comparison between field data and CFD data. Stevens said he will clean up the field data and make that available to everyone. **ACTION: Stevens will provide Rerecich cleaned up data by the end of next week. A draft report will be available soon.** Conder asked if there is a linear relationship between guidance and flow control. Fredricks said we can get good guidance when screens are pulled. Rerecich suggested maybe we don't guide as well at high flows regardless. He said an unknown is how much will be lost through the gap if flow is restricted. Stevens provided some paper plots for Lorz and Fredricks to review. Stevens said the physical models were used to calibrate the CFDs but due to some issues, the team has relied more on field data. Lorz said he believes we may be on the right path but it appears to be a bit of a stab in dim light. Fredricks said the other option is to go after the VBS but we don't have that kind of time now. **FFDRWG gave concurrence to move forward with further investigations in the alternatives but they want the data and details to look at more in-depth. ACTION: Rerecich will schedule a special FFDRWG in the fall.**
- 3.4.** Bettin asked if there is money for this. Does SCT need to provide more funds or are there funds still available. Medina said he thinks he has the funds but he will confirm that towards the end of the FY. Rerecich said he would love to put fish through a C-slot but with the trashracks available, it likely isn't feasible. Fredricks said Spring Creek fish has been the worse-case scenario. He suggested potentially testing with Spring Creek fish and not testing run of the river (ROR) fish. This would save costs and maybe time. Rerecich said he likes the descaling data from the ROR fish. Rerecich said the TRD testing appeared to show that mortality wasn't significant enough to continue on with ROR fish. FFDRWG agreed that C-slot testing is needed but there isn't a good option for doing that in 2015.

**4. Lamprey Passage Projects. Update forms are available on the website.**

- 4.1. Bonneville WA Shore Lamprey Flume System – Entrained Air (Tackley).** Tackley talked through the update form. Bettin asked if the work will require a powerhouse outage. Tackley said he didn't know. The work won't be completed until 2016-17. One potential fix may be installing baffles in the AWS pipes. Bettin asked how many years the structure will be tested. Tackley figured the testing would continue through 2018 due to the hurdles encountered. Bettin asked what success looks like. Fredricks said the first thing is to get the system up to capacity flow. Tackley said a number that equals success hasn't been decided. He said that discussion will come into play with the extension of the system up to the forebay. Bettin asked if we shouldn't turn off the LFS for a couple of years until the fix can be made. Lorz said he is getting push back from the Tribes. They want to know why we haven't tested to see if the bubbles are even causing a problem for salmon. Fredricks said he isn't willing to allow greater than 50% AWS flow. He said he might change his mind if he knew what was occurring under the water. Bettin asked if there is a way to take video of the area to see what is happening. Meyer said if the bubbles are all the same size, it would be easy. We don't know if the bubbles are changing before they reach the surface. **ACTION: Have a hydraulic engineer at the next NWP FFDRWG to go through the conditions in the area.** Bettin asked if there is any value in shutting down the LFS in September, with the peak of the fall Chinook run. There was not a conclusion answer to this. Lorz and Conder suggested there may be a possibility of doing something in 2015-16 if the IHR testing doesn't go forward. After a glare from Mackey, Lorz clarified that he would be supportive if it was a really simple installation that takes only a day or two.
- 4.2. Lamprey Minor Fishway Modifications (Saldaña/Wilcox/Tackley).** MOC 14BON54 received concurrence so the lamprey plating will be installed during winter maintenance. Weir caps will be fabricated and installed by BON. Welton is in the process of designing the caps. FFDRWG will have a chance to review the design prior to installation. Meyer asked about the height of the caps and noted that the WS entrance weirs often bottom out at low flows. He suggested putting them on the back or sides. FFDRWG expressed concern with the loss of entrance weir depth. **FFDRWG said the weir caps cannot affect the ability of the entrances to meet FPP depth criteria.**
- 4.3. Lamprey Passage Structure (LPS) Development (Saldaña/Stevens/Tackley).** An overview photo is available on the website. Tackley talked through the construction schedule for BON. JDA-N would occur in 2017-18. Tackley said we will need to have a discussion about what would be acceptable as far as ramps and orifices. Tackley suggested a site visit to discuss concerns; this wouldn't occur until a concept is available to look at first. **ACTION: Tackley will schedule a meeting later.**
- 5. JSATS.** Eppard reported that the JSATS website is up. If you want to access it, you need to register to get a username and password. Access is restricted by Eppard but the data is managed by University of Washington. Finalized data is available; this goes up to 2012 for NWP. NWW may have 2013 available. Eppard added that when you register you have to specify what information you want access to. He said this is a database where you can access the data but it will not query for you. **ACTION: Eppard will send an email with the information for accessing the website.** Fredricks asked what information would be available. Eppard thought river conditions when the fish passed would be available.
- 6. The Dalles East Adult Fish Ladder AWS Backup System (Duyck/Rerecich).** Duyck provided an update. Duyck took over the PDT from Medina in May 2014. He talked through the schedule for the plans and specs. He anticipates contract and award by the end of FY15.

Duyck noted there are a number of dam safety concerns. Key issues include air entrainment, cofferdam, and construction sequence. More information and details will be provided as the plans and specs progress. FFDRWG will be kept abreast of these details. Lorz asked if lamprey have been considered. Bettin asked if the DDR has been sent out. **ACTION: Rerecich will send the DDR out again.**

7. **John Day North Ladder Improvements** (Richards/Boag/Welton/Tackley). Richards reported she is still working on getting the pump issue straightened out. It appears to be a design flaw. JDA is working on getting the plates on the VWW replaced. Conder asked what the issue is with the pumps and how long it will last. Richards reported pump #4 has failed and is in pieces. NWP will bring in a third party to get an objective analysis of why the pump has failed. It is the fifth failed pump. Right now we have five pumps in service and they appear to be working fine, however, there has been no warning before any of the previous pumps catastrophically fail. No action may be taken until the third party investigation is completed. Whatever is the issue, it appears to be systemic of all six pumps.
8. **B2 Fish Unit Trash Rake** (Stricklin/Filan/Rerecich). Rerecich reported that there was a hiccup in getting the ROV inspection on 5 August. The rake is being modified now. Rerecich showed a photo of the plate being modified to hold the brushes. FFDRWG made comments on the rake appearance. Doubt was expressed by many in attendance. The rake will be tested in the 2015 debris season. The FPP language has already been changed to restrict the floating option by BON. Lorz will propose some data collection ideas so the effectiveness of the rake may be evaluated. Van Dyke asked about the delays associated with these rake mods. Rerecich said the delay occurred in Contracting and that has pushed everything else back and could delay testing until this fall or possibly as late as March 2015.
9. **Bonneville Adult Fish Facility Mods** (Ament/Sipe/Schlenker/Rerecich). Rerecich gave a brief rundown of the recent mods. Shad season went much better in 2014 than in 2013. New sensors are getting installed so the water elevation with valve 15 at 20% doesn't trip the high water alarm in the control room. He then presented the differences in mortality numbers between 2013 and 2014. The spreadsheet will be available on the website. **FFDRWG agreed that the mods made over the winter appear to have helped with mortality.** Rerecich presented the spreadsheet he and Traylor developed that show the number of morts by species and by percent of the run. 2012 has not yet been entered into the spreadsheet but will. Right now the question is whether or not the release pipes should be reattached. Rerecich needs to have a decision by early fall. Fredricks said he wouldn't worry about putting them back on right away. He said don't throw them away but no need to rush to re-attach. **FFDRWG would like to see the rest of the data before making that decision.**
  - 9.1. Lamprey in the trashracks. BON and PM-E are looking at providing plating to help lamprey out of the Valve 15 trashrack area. The flows are high enough that it would be difficult for lamprey to get out of that area once they are in there.
10. **Updates provided in the update forms, which may be found at <http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>.**
  - 10.1. **Turbine Survival Program** (Medina/Rerecich).
  - 10.2. **The Dalles Spillwall** (Ament).
  - 10.3. **Bonneville Spillway - Stilling Basin Erosion** (Cutts/Ebner). Fredricks talked about scheduling another FFDRWG to discuss the Performance Test results and what needs to happen next. Rerecich said there is a new PDT that will look at major rehab for everything not in the powerhouse.