CENWP-PM-E 06 February 2014

MEMORANDUM FOR THE RECORD

Subject: FINAL minutes for the 06 February 2014 FFDRWG meeting.

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

Last	First	Agency	Office/Mobile	Email
Baus	Doug	RCC		
Bettin	Scott	BPA		swbettin@bpa.gov
Conder	Trevor	NOAA Fisheries		Trevor.conder@noaa.gov
Ebner	Laurie	USACE-NWP		
Eppard	Brad	CENWP-PM-E		Matthew.b.eppard@usace.army.mil
Filan	Ben	NWP		
Fredricks	Gary	NOAA Fisheries	503-231-6855	Gary.fredricks@noaa.gov
Henrie	Gary	USACE-NWP		
Kostow	Kathryn	ODFW		
Lee	Randy	USACE-NWP		Randall.t.lee@usace.army.mil
Lorz	Tom	CRITFC		lort@critfc.org
Mackey	Tammy	CENWP-OD-TF	503-961-5733	Tammy.m.mackey@usace.army.mil
Medina	George	USACE-NWP	503-808-4753	George.J.Medina@usace.army.mil
Meyer	Ed	NOAA Fisheries		
Rerecich	Jon	CENWP-PM-E	541-374-7984	Jonathan.g.rerecich@usace.army.mil
Richards	Natalie	USACE-NWP	503-808-4755	Natalie.A.Richards@usace.army.mil
Royer	Ida	CENWP-OD-B		
Stricklin	Erick	USACE-PM		
Studebaker	Cindy	PM-E		
Tackley	Sean	PM-E		
Traylor	Andrew	CENWP-OD-TF		Andrew.w.traylor@usace.army.mil
Warf	Don	PSMFC		dwarf@psmfc.org
Wright	Lisa	RCC		
Weiland	Mark	PNNL		
Wilcox	Scott			
Van Dyke	Erick	ODFW		
Zorich	Nathan	PM-E (detail)		

Kostow, Warf, and Wright called in. A phone was not in the meeting room so Eppard used his Blackberry. Attendees on the phone had difficulty hearing others in the room.

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 06 February 2014 NWP FFDRWG.

1.1. BON FGE testing. Fredricks said he was in agreement with the testing. Bettin said he may need a couple days advanced notice to get the flow where it is needed. There will be more conversation in-season to fine tune the details.

2. Action items from 6 February 2014.

2.1. 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.

2.2. BON FGE. Rerecich will update the MOC and send it to FPOM again.
2.3. 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.
2.4. JDA-S expansion joint repairs. Richards will send details and photos to Mackey for inclusion in the FPOM agenda.
2.5. BON AFF. Rerecich will set up a special NWP FFDRWG AFF meeting.
2.6. JDA Adult PIT. Eppard will schedule a conference call/meeting with NOAA Fisheries, NWP, and NWD to further discuss.
2.7.

3. **B2-FGE.** Medina and Ebner provided handouts. Medina reported they are looking to install a flow deflector prototype. Updating the CFD model. The study plan is drafted and the orifice study is out for review. Ebner reported Rerecich sent a velocity plan for comment and concurrence to FPOM. The flow deflector is only temporary. It is not stainless and it will be removed. It is there for testing only. The testing is expected to occur during higher flows. The goal is to test in late May – early June. One of the high flow tests has been removed. Ebner explained that if the high flow cannot be achieved, the design for the prototype cannot move forward. Fredricks asked about the modified VBS test. Ebner explained that the spare VBS will be modified to block the upper sections. Fredricks asked why 10 hours for a test. Ebner said that is how long it takes to collect all of the data. There are four instruments that are moved four times. Bettin asked what the minimum discharge is needed. Ebner said 300 kcfs. Rerecich thought it was 225 kcfs. Ebner will check the exact discharge need. Baus asked if there would be a need for special requests for forebay elevation. Ebner said she was good with the uncertainty of the biological trigger for high flow testing. **Fredricks said he was in agreement with the testing. Bettin said he may need a couple days advanced notice to get the flow where it is needed. ACTION:** Ebner said she will lay out a schedule as the season progresses and we have a better idea of what flows might look like. Rerecich will update the MOC and send it to FPOM again. Kiefer recommended moving the test forward to help prevent impacting sockeye. Fredricks pointed out that moving the testing earlier, we are likely to impact MORE sockeye rather than fewer. Ebner said based on the flows, the window is pretty limited. There is some flexibility but the flow needs to be high enough to allow the high flow tests to occur. **There will be more conversation in-season to fine tune the details.**
    3.1. ***Update:*** *In looking at the data in the FPP we want the head to be 57 feet or less and would prefer 54 feet or less. If you assume that the forebay is around 74 feet we need a tailwater of approximately 20 feet. To get to the 20 feet we need a Bonneville outflow of approximately 225,000 cfs.*

4. **B2 Orifices.** Combined with the update on FGE.

5. **Lower Columbia River Survival Study**.
    5.1. BON Multi-year Synthesis Analysis (PNNL: Weiland). Weiland provided a ppt. presentation. This was available via webcast. B1 and B2 Turbine Operating Range were divided into four quartiles. Best Operating Point is referred to as Best Operating Range. ABOP = above best operating point to generator limit. Data is for yearling Chinook from 2010 – 2012. Kiefer commented that 2012 was a year when we tested the ABOP and BOP, he would like to take a closer look at that data. Weiland said the steelhead and sub-yearling Chinook sample sizes at the B1 upper limit are low, which makes the confidence levels too wide and there was no standard error. Weiland said it may be difficult to find anything meaningful in that data.

5.1.1. At B2 for yearling Chinook, we have five years of data. Weiland explained the difference in the Q4 numbers between AFEP and now. The LWG fish had tags nearing the end of their tag life so the numbers had to be corrected. Take home message is that there is no significant difference in survival at the different ranges at B2.

5.1.2. There are four years of data for sub-yearling Chinook. Fredricks noted the model shows an environment in the turbine environment that looks horrible for fish at the low end. The data from Weiland's study shows there is no difference in survival across the range. Weiland also showed there is not a significant difference in survival when STSs are in or out. Eppard and Fredricks discussed if the screens change the turbine environment. Steelhead showed better survival without the STSs installed.

5.1.3. Spillway data was by bay for years 2008, 2010, 2011, and 2012. No spillway survival study in 2009. Weiland said there is variation but not significant differences. Lorz asked if gate openings might correlate to the data. There should be more fish passing the end bays since they are open more and fish tend to track along the shoreline but there may also be more predation along the edges. It was noted that bays 9, 10, 13, and 14 were the bays that needed repair. Bay 14 showed decent survival for yearling Chinook. Bay 10 showed best survival for sub-yearlings. Fredricks said the surface route will go in Bay 10. Ebner said she wants a new spillway.

5.1.4. Ebner suggested looking at the bathymetry further down from the stilling basin. There are different receiving water conditions downstream. Basically the data show no difference in survival between bays. When bays are grouped, there are statistically different survival rates for bays 4-7. But not for steelhead. Fredricks asked to see the actual numbers; Weiland said those would be included in the report.

5.1.5. Weiland asked everyone to use their imagination for the yearling and steelhead slide that doesn't appear to be visible. He said the data showed that at higher spill levels, survival dropped when spill got above 280 kcfs. Ebner asked if those numbers came from 2011. Weiland said yes. Ebner than explained that tailwater was low because the powerhouses were not fully loaded. The spillway was designed for certain tailwater and in 2011 we didn't have the tailwater to help dissipate the energy. Bettin suggested looking at spill discharge and total discharge might tease out what Ebner is talking about. Fredricks would still like a special FFDRWG to talk about this data in more detail. He said BON still isn't making the standard and there is one, maybe two tests left. What are we going to do to make the standard? **ACTION:** NWP will put together some meetings to focus on the path forward for BON. Conder asked Weiland to provide a visible yearling Chinook and steelhead slide at the next meeting. Baus asked if the current 14BON001 change form is still valid. Lorz said he feels the change form is still valid since BOP appears to not be an issue. ABOP is something that may need to be discussed further. Fredricks said no one on the TSP team was suggesting ABOP. Fredricks said the operating range at PH1 is probably no longer in question. Survival appears to be fine across all operating ranges. Lorz said the SOR for mid-point at PH2 will still come in but operating PH1 to BOP may not be as much of a concern. Baus said holding PH2 to the

mid-point and upping PH1 to gen limit almost evens out. There is still the 115kv line limitation for 2014 but we get close to equaling out.

5.1.6. Bettin asked when we start talking about removing STSs at the higher flows. NOAA suggested looking at that issue when we have a more detailed meeting. Lorz suggested this may belong in a COP discussion. Fredricks reluctantly agreed with Lorz.

5.1.7. Additional slides include survival relative to tailwater elevation by species, spillway, and powerhouses.

5.2. JSATS Database. Eppard reported the database is up and ready to go. It just needs some cosmetic updates. By late next week it should be up and running. It'll have the 2010-12 data for the Region to access. Data will not be available until it is finalized. Once new data is available it will be added and users will have access to it automatically. Eppard said this is a data archive for raw data. Users will need to build their own models with the data. Eppard said the software for the models should be available on the web already.

6. Lamprey Passage Projects

6.1. Lamprey 10-year Plan Update. Draft has been distributed to the Tribes for review. Comments are due by 21 February from the Tribes. Those comments will be incorporated and then the plan will be distributed to the Region for comments.

6.2. Bonneville WA Shore Lamprey Flume System. Tackley reported the repairs were completed ahead of schedule. The rods are stainless and should not need to be replaced anytime soon. The repairs helped a little with the boil. Tackley recommends looking at the flume under different flow to see where the best operation may be. Fredricks asked who is running the Washington Shore lamprey flume. He wanted to know if the FPP has all of the lamprey info so the Project will know how to operate it.

6.3. Lamprey Minor Fishway Modifications. Next winter minor mods are expected to include rounding entrance weirs at the Washington Shore Fishway as well as lamprey plates. BI lamprey work is going on now. BI is expected to be watered up the last week in February. Water up of the lamprey wetted wall is late spring.

6.4. Lamprey Passage Structure (LPS) development PDT.

7. John Day North Ladder Improvements. Richards reported the VWW is almost complete but more parts were needed. JDA expects to have the work completed on 14 February, with the work being done at night.

7.1. JDA-S expansion joint repairs. Still on schedule with a completion date of 21 February. The ladder portion looks great, however there have been significant issues with getting the AWS dewatered and turning it over the contractor. **ACTION:** Richards will send details and photos to Mackey for inclusion in the FPOM agenda.




8. Bonneville Adult Fish Facility Mods. Rerecich provided a handout. Rerecich reported repairs were completed last winter but the mortalities didn't decrease. More money became available so additional modifications were made this past winter. More access to the valve 15 trashrack has been completed. A staff gauge is being installed. Rerecich explained the

measurements taken in the AFF. The audio battery died mid explanation. NWP FFDRWG part 2 begin in the middle of Rerecich's explanation. Rerecich provided details about the different velocity tests and lab configuration. **ACTION:** Rerecich will set up a special AFF FFDRWG meeting.

9. **The Dalles East Adult Fish Ladder AWS Backup System.** No update.

10. **The Dalles Adult PIT tag detector.** Detector installed and working.
    - **10.1.** JDA Adult PIT. Ranked high by everyone except NWP. Putting a detector is would be very difficult. NWP isn't sure how the information would be used and because of cost, installation is not supported. NWP isn't opposed to PIT tag detectors but at this time NWP doesn't see it as a high priority. **ACTION:** Eppard will schedule a conference call/meeting with NOAA Fisheries, NWP, and NWD to further discuss.

11. **Turbine Survival Program.** Ebner said there are reports available. She has hardcopies if anyone wants one. B1 and B2 model reports will be completed by the end of the calendar year.

12. **JDA Configuration and Operation Plan**. Medina provided a handout.

13. **B2 Corner Collector.** Medina provided a handout. No funding for FY14.

14. **B2 Trash Rake**. Rerecich and Strickland provided an update. Strickland said the PDT is requesting BON rake more often and to dredge in front of the racks on a regular (every two years or when the WS fishway comes down for maintenance) basis. Fredricks said he doesn't want to see the option to float trash in the FPP. Filan said there should be an emergency contingency to float trash. Fredricks agreed with an emergency situation, but on a regular, normal operation type of situation, the Project should not float trash. Fredricks stressed the need to keep up the dredging. Filan said the Project needs to pull and clean the racks every winter as well.
    - **14.1.** Filan explained the proposed mods to the trash rake.

15. **Avian Predation Actions.** Studebaker provided an update about predator management and site-prep. Klatte has provided funding for these activities. The goal is to attract and retain terns at these sites. Duchey has become submerged and there was another island that hasn't succeeded as well. The Klamath Basin sites are supporting terns. Lorz asked Studebaker about the long term plans. NWW, NWP, and USFWS have been looking for additional sites in California. Refuge managers are optimistic that some enhancements could attract and support terns. USFWS is willing to do the maintenance and predator control. NWW has taken the lead on the coordination for this. There is a site visit the last week of February. East Sand Island draft EA is out for review. Waiting for comments back and then will decide the path forward. Fredricks stressed the need to have this done right rather than rush it to meet some deadline in the BiOp. He would rather have the work completed in a manner that doesn't leave us open for litigation. NWP is not taking management actions for cormorants due to the expectation we will have an EIS and signed ROD by the end of this year. Key elements of the study are: monitoring colony size and productivity via aerial surveys; PIT tag recovery after breeding season. Lorz asked what happens if the terns stray into cormorant territory. Studebaker said NWP is working on getting permission to dissuade terns from certain areas. Lorz expressed his frustration and noted the Tribes pay for the lack of success in addressing avian predation by having their fishing seasons impacted.

16. Future FFDRWG agenda items.

16.1. Fredricks concluded the avian discussion by saying this should never be discussed in FFDRWG again. Lorz commented that the tribes do not have any other forum to discuss avian issues with NWP due to not being allowed on the AMT nor has a different process been established yet.

16.2. BON Spillway should be a regular update.

16.3. TDA spill wall under cutting should be an update.

17. Future FFDRWG meetings. Eppard recommended going to quarterly meetings. Lorz and Fredricks agreed. Fredricks said the ad hoc meetings could be used to address the special issues.