

## MEMORANDUM FOR THE RECORD

Subject: Final minutes for the 06 June 2019 FFDRWG meeting.

The meeting was held at the Lobby Conference Room, Block 300 in Portland, OR.

In attendance:

Last	First	Agency	Email
Anglea	Steve	Biomark	<a href="mailto:Steve.Anglea@biomark.com">Steve.Anglea@biomark.com</a>
Axel	Gordon	NOAA	<a href="mailto:gordon.axel@noaa.gov">gordon.axel@noaa.gov</a>
Bettin	Scott	BPA	<a href="mailto:swbettin@bpa.gov">swbettin@bpa.gov</a>
Bissell	Brian	NWP-BON	<a href="mailto:Brian.M.Bissell@usace.army.mil">Brian.M.Bissell@usace.army.mil</a>
Brooks	Gabriel	NOAA	<a href="mailto:gabriel.brooks@noaa.gov">gabriel.brooks@noaa.gov</a>
Brower	Alan	PSMFC	<a href="mailto:abrower@psmfc.org">abrower@psmfc.org</a>
Collis	Ken	RTR	<a href="mailto:Ken@realtimeresearch.com">Ken@realtimeresearch.com</a>
Conder	Trevor	NOAA	<a href="mailto:trevor.conder@noaa.gov">trevor.conder@noaa.gov</a>
Cooper	Erin	FPC	<a href="mailto:ecooper@fpc.org">ecooper@fpc.org</a>
Ebner	Laurie	NWP-ENC	<a href="mailto:Laurie.L.Ebner@usace.army.mil">Laurie.L.Ebner@usace.army.mil</a>
Eppard	Brad	NWP-PME	<a href="mailto:Mathew.B.Eppard@usace.army.mil">Mathew.B.Eppard@usace.army.mil</a>
Fielding	Scott	NWP-PM-E	<a href="mailto:Scott.D.Fielding@usace.army.mil">Scott.D.Fielding@usace.army.mil</a>
Johnson	Kim	BPA	<a href="mailto:kojohnson@bpa.gov">kojohnson@bpa.gov</a>
Kovalchuk	Erin	NWP	<a href="mailto:Erin.H.Kovalchuk@usace.army.mil">Erin.H.Kovalchuk@usace.army.mil</a>
Lorz	Tom	CRITFC	<a href="mailto:lort@critfc.org">lort@critfc.org</a>
Macdonald	Jacob	NWP	<a href="mailto:Jacob.Macdonald@usace.army.mil">Jacob.Macdonald@usace.army.mil</a>
McGrath	Claire	NOAA	<a href="mailto:claire.mcgrath@noaa.gov">claire.mcgrath@noaa.gov</a>
Morrill	Charlie	WDFW	<a href="mailto:Charles.Morrill@dfw.wa.gov">Charles.Morrill@dfw.wa.gov</a>
Peterson	Christine	BPA	<a href="mailto:chpetersen@bpa.gov">chpetersen@bpa.gov</a>
Rerecich	Jon	NWP-PME	<a href="mailto:Jonathan.G.Rerecich@usace.army.mil">Jonathan.G.Rerecich@usace.army.mil</a>
Royer	Ida	NWP-PME	<a href="mailto:Ida.M.Royer@usace.army.mil">Ida.M.Royer@usace.army.mil</a>
Studebaker	Cindy	NWP	<a href="mailto:Cynthia.A.Studebaker@usace.army.mil">Cynthia.A.Studebaker@usace.army.mil</a>
Sullivan	Leah	BPA	<a href="mailto:lsullivan@bpa.gov">lsullivan@bpa.gov</a>
Swank	David	USFWS	<a href="mailto:David_Swank@fws.gov">David_Swank@fws.gov</a>
Trachtenbarg	Dave	NWP-PM-E	<a href="mailto:David.A.Trachtenbarg@usace.army.mil">David.A.Trachtenbarg@usace.army.mil</a>
Van Dyke	Erick	ODFW	<a href="mailto:erick.s.vandyke@state.or.us">erick.s.vandyke@state.or.us</a>
Warf	Don	PSMFC	<a href="mailto:dwarf@psmfc.org">dwarf@psmfc.org</a>

On the phone: Anglea, Axel, Bettin, Brooks, Brower, Collis, Kovalchuk, McGrath, Morrill, Swank and Warf.

1. Final decisions or recommendations made at this meeting.
  - 1.1. April meeting minutes were approved.
2. The following documents are provided or discussed at this meeting. All documents can be found at: <http://pweb.crohms.org/tmt/documents/FPOM/2010/FFDRWG/FFDRWG.html>

2.1. Agenda (NWP)

2.2. FFDRWG updates (NWP)

3. Action Items

3.1. ACTION: Macdonald will send pictures of the stilling basin out to the group and post on the website. Status: Stilling basin images are available in the meeting files for 06-June on the FFDRWG website

4. Bonneville PIT detection

4.1. BPA/NOAA tailrace detection update – *Gabriel Brooks/Gordy Axel* – Last year, deployment of the barge was tested to make sure that it would stay in place. Results showed that the barge stayed in place, had relatively high efficiency, did not show depth bias, and shed debris well. This year, the objective is to test auto debris removal and then the barge could move closer to BON tailrace about 6km downstream. The barge will be installed next week and left in for at least 45 days. They may need to barge in debris for testing. The auto debris shedder will be on a timer. Morrill asked about recalibration when the fins are retracted. Brooks said that recalibration is automatic. Lorz asked about waiting a year since most of the high flows and high debris have past. Brooks recognized that the high debris and fish have passed but the delay in contracting was due to the government shutdown earlier this year. Brooks thought that testing the equipment in a calmer flow/debris scenario instead of the high flows could be a good thing. Lorz said that would be good, if there is enough funding for the second test and a third with high flows. Conder would be fine with calling it a pilot program and wants everyone to be cautious on drawing too many conclusions from the results. The barge will have a GPS for measuring drift. Morrill said that there are PIT sub-yearlings coming down that were just released. Peterson said the funding is being reviewed/scrutinized more than before and this has to be prioritized high to continue. BPA has been favorable to PIT detection but it still has to be prioritized high for funding. If allowed, Brooks would want the barge to be in the BRZ especially near the JBS outfall. Conder said that in order to replace the trawl, it has to have adequate mixing with the outfall and other juvenile routes. Axle said that it appears on Google maps that the location would be good but if there is not enough mixing then the location would be moved downstream. Servicing the barge would be easier if it was outside of the BRZ. Peterson asked about moving locations once deployed. There is a potential for three anchor locations that the barge could move to. JSATs have 5 nodes across the river. NOAA has asked which node has the most hits but Conder isn't sure how to mine that data base. Macdonald said to talk to Eppard about that data because he has access. Lorz pointed out that the barge cannot go into the nav channel.

4.2. USACE 'on the concrete' feasibility study update – *Ida Royer* Royer presented the preliminary brainstorm options and tried to use available data to see how much detections would increase at each location. ITS is a yearlong passage route which is favorable but there will be structural challenges to this area. For the spillway, only one bay would have detection, not every bay. The B2CC has about 85% efficiency already so adding detection would not add much. Below the JBS outfall pipes would add significant detections but the debris and antenna technology made this location not feasible. Royer has tables with current detections rates and how much efficiency could increase. Conder asked about the high cost column in the table and what it is compared to. Royer said that there aren't any cost estimates yet either so the column is imprecise. Morrill said he would like increase detection for ST, especially kelts. Warf is trying to reduce cost by

testing the newly developed NOAA antenna cable and if it works, it could save money on the five gates of the ITS. Another option is to have two barges staggered. VanDyke suggested adding route specifications to the table. Morrill suggested using a barge during the kelt migration but Lorz said not many kelts are tagged. Spillway is looking at one gate not the whole spillway. The detection would have to be on the ogee; it is not the same as LGR. The reshaping of the LGR test bay made the water column now 24" not 8" like BON. Royer would like to have a proposal by the end of September and then would start the DDR process.

5. Gas abatement at The Dalles: History lesson and Q&A session – *Laurie Ebner* The Dalles has unusual bathymetry. It was built in the dry which is why it is angled. Flow deflectors were evaluated twice and eliminated as a potential solution for gas abatement in 2002. In order to minimize TDG, you need to keep air up rather than at depth. TDA doesn't have a lot of depth except for the shelf. Tailwater ranges from 76-79 and the elevations of the ideal deflector doesn't line up with the Q. Ebner explained the ideal deflector showing skimming water off the deflector with a picture of JDA and then showed the TDA model pictures with and without deflectors. None of them looked good. The problem at TDA is the high energy down the ogee and a shallow stilling basin. JDA has a very deep stilling basin. BON ogee is elevation 24 and the stilling basin is ~15 but there isn't the high energy coming down the ogee so deflectors can work. There are two different size deflectors 7' in the middle and 14' on the outside. The sides are too shallow for 7' deflectors straight across the spillway. For a deflector to work, you need water underneath the jet for support. Conder asked if TDA and BON had about the same flow at gas cap, ~120kcfs. Lorz pointed out that TDA used to spill 60% without adding gas because the spill was spread out over the 22 bays. At TDA, if more bays were available then more spill could happen but Ebner would only want bay 9 because it tracks the wall. Bay 9 is out of service. Without bay 9, spill flow from south of the wall heads toward the bridge islands. Erosion next to the wall happened in 2011/2012 but it is being monitored. The erosion in bay 1 is new. If the erosion grows then the energy is too much for that bay. The damage could have occurred during the high flows. Worst case would be reduce flow until it is patched up but Ebner did not think a limitation is currently necessary. Lorz asked about moving the pier nose but there would be a stability issue. The bay 1 wall was for the adult passage. Johnson asked if 125 spill at BON would have any effect on erosion. Spill has a soft constraint of 150kcfs at BON for rocks not erosion. Ebner did not participate in JDA pattern making but there is not a structural concern with high spill volumes that she is aware of. Conder is concerned about bay 1 at TDA and wants bay 9 fixed. Ebner can't say when the damage at bay 1 occurred and was not recommending a restriction. Ebner thinks the erosion at bay 9 might have been a concrete issue from the contractor. Bay 9 and 10 were tagged out in 2006.
6. Discussion over written updates (as needed)
  - 6.1. John Day Turbine Rehab – *Jon Rerecich* – The Phase 1A will be sent out on 10 June and agencies will have 30 days for comments.
  - 6.2. The Dalles Fish Unit Turbine Rehab Phase 1A – *Jon Rerecich* – The due date for comments is 12 June.
  - 6.3. The Dalles East Fish Ladder AWS Backup – *Jon Rerecich*
  - 6.4. B2 FGE – *Jon Rerecich* The PDT is planning on the hydraulic testing of the gate wells next year when they get funding again.
  - ~~6.5. Bonneville PIT Feasibility – *Ida Royer*~~
  - 6.6. Lamprey Minor Fishway Modifications – *TBD*

6.7. Lamprey Passage Structures –The hoist at TDA E is installed and working. JDA reinstalled the old pump and it is working but the elevator contract is out for bid.

6.8. TDA AWS – Follow on work continues.

**Next NWP FFDRWG Meeting:** 1 August 2019, 09:30-12:00