CENWP-PM-E 01 August 2019

MEMORANDUM FOR THE RECORD

Subject: Draft minutes for the 01 August 2019 FFDRWG meeting.

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

In attendance:

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| --- | --- | --- | --- |
| **Last** | **First** | **Agency** | **Email** |
| Bellerud | Blane | NOAA | [Blane.Bellerud@noaa.gov](mailto:Blane.Bellerud@noaa.gov) |
| Conder | Trevor | NOAA | [trevor.conder@noaa.gov](mailto:trevor.conder@noaa.gov) |
| Cooper | Erin | FPC | [ecooper@fpc.org](mailto:ecooper@fpc.org) |
| Hicks | Jeff | NWP-PMF | Jeffrey.T.Hicks@usace.army.mil |
| Johnson | Eric | IDFG | Eric.Johnson@idfg.idaho.gov |
| Kiefer | Russ | IDFG | [Russ.kiefer@idfg.idaho.gov](mailto:Russ.kiefer@idfg.idaho.gov) |
| Kovalchuk | Erin | NWP | Erin.H.Kovalchuk@usace.army.mil |
| Macdonald | Jacob | NWP | Jacob.Macdonald@usace.army.mil |
| Morrill | Charlie | WDFW | [Charles.Morrill@dfw.wa.gov](mailto:Charles.Morrill@dfw.wa.gov) |
| Peterson | Christine | BPA | [chpetersen@bpa.gov](mailto:chpetersen@bpa.gov) |
| Rerecich | Jon | NWP-PME | [Jonathan.G.Rerecich@usace.army.mil](mailto:Jonathan.G.Rerecich@usace.army.mil) |
| Royer | Ida | NWP-PME | [Ida.M.Royer@usace.army.mil](mailto:Ida.M.Royer@usace.army.mil) |
| Sullivan | Leah | BPA | [lssullivan@bpa.gov](mailto:lssullivan@bpa.gov) |
| Van Dyke | Erick | ODFW | erick.s.vandyke@state.or.us |
| Zorich | Nathan | NWP-FFU | Nathan.A.Zorich@usace.army.mil |

On the phone: Bellerud, Cooper, Johnson, Kiefer, Morrill, Sullivan, VanDyke and Zorich.

1. Final decisions or recommendations made at this meeting.
   1. Meeting minutes from April and June 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>
   1. Agenda (NWP)
   2. FFDRWG updates (NWP)
3. Bonneville PIT detection
   1. USACE at-dam feasibility 60% DDR, presentation of alternatives and ranking (Royer) – The aim of this Corps funded effort is to place an additional pit antenna to increase the precision of the survival estimate. The report will be going out today (01 August) and this is a presentation of what will be in the report. The PDT had 10 alternatives to review. The team started with several constraints – must fit within the current infrastructure, not hinder fish passage, can’t affect dam safety or hydraulics, and based on technology that already exists. NOAA and PSMFC helped a lot in this process. Conder asked why a barge was on the list if it is not on the concrete. Royer said that the outfall is within the BRZ limit. Alternatives 1-4 deal with the ITS (Ice and Trash Sluiceway). Alt 1 - gates 1A and 1B would be outfitted with a fixed plate antenna but the gates have a high water depth which would have a lower detection rate. Alt 2 – Using a guide slot antenna in the fixed gates. The practical use of this option is limited because the antennas would have to be moved when the gates moves. In addition, all the surrounding metal would interfere with the antenna signal. Alt 3 - ITS Auto gates with a fixed antenna. Detection efficiency would be high because of the 2” depth of water. Conder was wondering about changing the depth over the gates. Rerecich said it would change the hydraulics and it would become an FPOM discussion. Conder asked if this alternative could be used in conjunction with the fixed gates. Royer said it would have to be decided. Sullivan asked if gates 1A and 1B could be moved to auto. Royer said that is not within their scope. Alt 4 – an embedded antenna in the ITS outfall chute but the hydraulics are too turbulent and the area is so large that the detections would be very low even though it is a good location. There is a similar issue to the B2CC but the antenna is within the channel where the hydraulics have settled a bit. The flow going over the ITS outfall is ~1.5Kcfs. Alt 5 and 6 were discounted because it would involve additional structure. Alt 7 -Spillway flat plate in either bay 1 or 18 but the ogee is low and very turbulent. There are concerns about putting an antenna on a spill gate due to the age of the gates. Alt 8 - Add another antenna to the B2CC. Technology has improved and this would be easy to do but adding another antenna doesn’t increase detections by much for the overall project. Alt 9 - JBS outfall adding an antenna to the piers but there are concerns about load on the piers. Conder was skeptical of the load issue. The style of antenna that could sit on a pier is unknown and the number of detections is hard to predict. Alt 10 - PIT Barge like the one currently being test. There are still many questions on this alternative because of mooring, safety concerns and access. The detection boost is unknown. Royer went over the criteria for the decision matrix and explained each weighting factor. Van Dyke asked where the expectation of the number of possible fish detected would be included. Royer explained that it would be factored into the detection delta (category 1). Van Dyke said the capability of the equipment should be different than the number of fish expected to be in that location. The antenna efficiency is how well they expect the antenna to perform in that location. Royer said that the two categories combined for the antenna efficiency/location score called the detection delta. Using J-Sat data, the team generated the scores for the locations. PSMFC and NOAA worked together to give estimates for the antenna efficiency column; this data is not based on J-Sat information. The ITS outfall had the highest increase in detection boost. The auto gates had the highest efficiency due to the shallow water. The barge option is just using one barge not multiple. Conder felt that the efficiency of the barge is much lower than it should be. The location could be a low score depending on where it is moored but the efficiency should be higher. Conder said the bottom line is what percentage of migrating fish are we expecting to detect with this antenna and how much will this improve detection at BON. Conder doesn’t feel like the first column adequately address this question. Royer asked if the decision to base the scores on J-Sat data was acceptable and Conder said yes. Conder would rather see the best estimate of number of tags going through a location and how many detections could be made based on the technology of the antenna and then compare the number of overall increased tag detections with the highest detection delta being a five. Royer wants help with the outfall piers detection. There are a lot of fish present but how many can be detected is unknown. Van Dyke suggests that if the matrix is changed, then separate reliability and durability because they are two different things. The highest ranked alternative is the auto gates at the ITS and the ITS outfall is second. Royer cautioned that this might not end up being the highest ranked alternative. Conder thinks that the fixed gates would attract more fish because PH1 always has the unit running for adult attraction. In addition, the fixed gates have a deeper flow. Royer and Rerecich were not aware of any data on individual gates passage at the ITS. Conder would rather see antenna installed on both the auto and fixed gates. The review period for the report ends 15 August. The final report is scheduled for September. The short comment period is due to funding running out in September. CRFM is funding this effort. BPA would pay for the antennas but the COE would pay for construction.
   2. BPA’s PIT barge update – Leah Sullivan – The barge will be moored for another month. The fins are deployed 24 hrs a day and twice a day the fins come up to shed debris. West Corps is able to reach the barge remotely. The barge has not had any issues with debris yet but missed the high flows. About a dozen tags were detected. The barge was deployed in June. The NOAA team was more concerned with debris shedding and less on detections. They would like to move closer to the dam. BPA has not discussed next year with contracting. Conder was surprised by the blunt structure instead of a triangle. Rerecich suggested that even with the limited detections, NOAA can start comparing them to the detections from the dam but Conder was very cautious using the limited data for anything. The team is considering adding debris to test the debris shedding. **ACTION: Kovalchuk will add the pictures to the meeting folder**.
4. Quick updates with discussion as needed
   1. John Day Turbine Rehab – Jon Rerecich.
      1. *Final phase 1A report sent to FFDRWG for review on 10-June. Comment period ended 28-June.* Comments were received from NOAA. The team has incorporated the comments into the report and will send these out for back check from NOAA.
   2. The Dalles Fish Unit Turbine Rehab Phase 1A – Jon Rerecich –
      1. *The draft final report was sent to FFDRWG for review and comment on 16-May. Comment period ended 12-June.* Comments from BPA, CRITFC and NOAA were received. There were many comments on using the AWS in conjunction with a single unit during construction. The PDT has decided to leave the comments open until they can get more run time on the AWS so that an engineering recommendation can be made. The PDT has some time to make a decision. The engineering recommendation will help make a selection on Kaplan or propeller unit. Scheduling of the AWS test will be coordinated through FPOM. Bellerud asked about the FUB schedule. The contractor is scheduled for December through January.
   3. The Dalles East Fish Ladder AWS Backup – Jon Rerecich. The remaining work is above ground and should not interfere with fish passage. Bellerud reiterated his concerns with reliability with the AWS.
      1. *Current Schedule:*
   4. Lamprey Minor Fishway Modifications – Ricardo Walker – No update
      1. *Lamprey trapping improvements at The Dalles East fish ladder were completed June 11th 2019.*
   5. Lamprey Passage Structures – *Ricardo Walker*
      1. *The John Day north fish ladder lamprey passage structure and collection box have been in operation since May. The original water supply system was reinstalled.*

**Next NWP FFDRWG Meeting:** 3 October 2019