

**Willamette Action Team for Ecosystem Restoration (WATER)
Research, Monitoring and Evaluation (RM&E)
July 23, 2020
CONFERENCE CALL/WEBEX**

http://pweb.crohms.org/tmt/documents/FPOM/2010/Willamette_Coordination/Willamette_RME/RME.html

**FINAL Facilitator’s Summary
[Edits provided by Corps]**

ACTION	BY WHOM?	BY WHEN?
Review Corps’ internal records to identify concept for pedigree studies.	Fenton	[Completed]
Send the PNNL study assessing the effects of TDG exposure below Foster to the RM&E Team.	Fenton	[Completed]
Send presentations to the RM&E Team	Emily	[Completed]
Provide comments on FY21 concepts to DS Consulting, using tracked changes/comment bubbles.	RM&E Team	7/29 COB
Compile team’s comments and send out concepts to the RM&E and Steering Teams.	DS Consulting	7/30 @ noon
Brief Steering Team representatives on the FY21 concepts.	RM&E Team	8/4

Present for all or part of the meeting: Leslie Bach (NPCC), Brad Eppard (Corps), Fenton Kahn (Corps), Anne Mullan (NMFS), Jim Myers (NMFS), Rachel Neuenhoff (Corps), Christine Petersen (BPA), Kelly Reis (ODFW), Lawrence Schwabe (CTGR), Dan Spear (BPA);

Facilitation Team: Emily Stranz and Nancy Pionk (DS Consulting).

Welcome and Housekeeping

Emily welcomed the group and conducted a round of introductions. The group approved the June 25, 2020 RM&E Team meeting summary.

Update on FY20 Studies

Fenton noted that the contracts have been awarded for the Fall Creek, copepod, and high-head bypass (Year 2) studies. *[Facilitator’s Note: in summary edits, Fenton also noted that the Corps is in the process of awarding the contracts for pedigree analysis for the S. Santiam, Middle Fork, and McKenzie sub basins and those contracts should be awarded before the end of summer.]*

Green Peter Test Spill for Foster Adult Fish

Fenton reported on the test spill operation at Green Peter, which occurred to validate the USGS model for improving the water temperatures in the Foster fish ladder to aid in adult fish upstream passage. He noted that the spill operation was intended to test whether spill would warm up the Foster reservoir, which would then warm up the ladder and encourage fish to use the fish ladder. The test was successful; the water temperature increased in the fish ladder and fish were observed entering the ladder and pre-sort pool for collection. The PDT will provide a summary report of the test spill operation.

Additionally, the Corps is using the fish weir to spill surface water through July 2020 to warm up the river downstream of Foster to aid in adult fish returns back to the facility.

High Head Bypass Fish Health/Stress Study - Year 1 Preliminary Results

Fenton provided a PowerPoint presentation (a separate document) regarding preliminary results from the High Head Bypass Year 1 study. Fenton noted that the objectives were to: 1) conduct a feasibility study to evaluate fish stress and survival via truck transport and bypass conveyances (i.e. determine if a full study using healthy and infected fish is feasible); 2) conduct a healthy fish passage evaluation (i.e. evaluate cortisol levels in fish during bypass and transport simulations; and, 3) conduct an infected fish relocation evaluation feasibility study (i.e. evaluate the practicality of using copepod-infected fish for a full study of bypass pipe and transport simulations. Fenton noted that the study simulated three different holding times prior to transport (1 hour, 12 hours, and 24 hours) and took blood draw samples from fish at various intervals. The preliminary results indicated that it is feasible to conduct a full-scale study with healthy and infected fish. The results also show that the longer fish are held prior to transport, the more stressful it is for fish. Fenton noted that a draft report will come out in late August 2020 and a full study will be implemented this fall (2020) with healthy and copepod infected fish.

Update on the Middle Fork Willamette SDM Task

Rachel provided a PowerPoint presentation (a separate document) on the Expected Value of Information (EVOI) model that will help inform the team on the relative benefits of conducting additional RM&E to inform passage decisions in the Middle Fork. Rachel reviewed the model and how it can be used to help inform the team about additional RM&E. Rachel indicated that a full report will be provided that details the model. One topic of discussion for the team in the future will be around risk tolerance.

→ **Action:** DS Consulting will send the two PowerPoint presentations to the team.

Other RM&E Team Updates

Leslie noted that NPCC is hiring a fish biologist and the position can be viewed on NPCC's website.

FY21 Concept Paper Review

The group reviewed the concept papers listed below and discussed questions/clarification regarding the concepts. Comments on individual concepts will be provided directly to the concept authors.

1. **FY21 APH-09-01-DET** – Evaluate reintroduction strategies for adult UWR Chinook salmon at Big Cliff and Detroit dams: above – versus below dam adult outplanting productivity.
Note: This concept was put forward by Lawrence to support continued pedigree studies in FY21. Questions were raised as to whether AH-09-01-DET was the appropriate concept paper for the pedigree studies. Discussion on the concept was deferred to allow the Corps to review internal records and identify the concept paper that was used for past studies.

→ **Action:** Fenton will review Corps' internal records to identify the appropriate concept for the pedigree studies. *[Facilitator's Note: Following the meeting, Fenton determined that, while past pedigree analysis has been funded by CRFM, concept papers were not previously developed because the analysis was required as part of the HGMP, not RM&E.]*

2. **FY19 APH-19-02-FC** - Fall Creek_AFF_yr2.
Note: This concept is for the Fall Creek Adult Fish trap post construction evaluation. Year 1 (originally for FY19) was delayed due to the contract not being awarded in time and is currently being funded for FY20.
3. **FY20 JPL-20-01** - Spatiotemporal sources of mortality in juvenile reservoir-reared Chinook salmon.
Note: this concept was ranked in FY20; however, funds were not available in FY20.

4. **FY21 APH-21-01 - Rapid Genetic Sorting.**
Note: This concept is intended to investigate what science/technology exists to quickly sort fish in large numbers and the efficacy of using it as a tool to manage upstream passage above Foster and Green Peter Dams. It was suggested that the concept looks at the Cowlitz approach to marking fish and consider what others are doing with regard to multi-tributary sorting.
5. **FY21 JPL-XX-21 - Detroit Dam Juvenile Passage_IM#5.**
6. **FY21 WQFM-XX-21-BCL - Big Cliff TDG_IM#6.**
7. **FY21 JPL-XX-21 - Foster Dam Juvenile Passage Spill Ops_IM#9.**
Note: The Corps' perspective is that no additional studies are needed to inform the spill operation at night and has provided a Research Summary (instead of a concept paper) documenting results from studies conducted at Foster which informed Interim Measure #9.
8. **FY21 JPL-XX-21 - Foster Dam Adult Passage Operations_TDG_IM #10.**
Note: The Corps' perspective is that no additional studies are needed to inform the spill operation at night and has provided a Research Summary (instead of a concept paper) documenting results from studies conducted at Foster which informed Interim Measure #10.

→ **Action:** Fenton will send the PNNL study assessing the effects of TDG exposure on Chinook and steelhead below Foster to the RM&E Team.
9. **FY20 JPL-XX-SYS - Interim Passage and Delayed Mortality.**
Note: NMFS brought this concept forward; Anne noted that this concept is intended to obtain as much information as possible from the interim measures being implemented.

The team discussed next steps for the concept papers:

→ **Actions:**

1. Team members will provide written comments using "tracked changes" and send them to concept paper authors and DS Consulting by July 29, 2020.
2. DS Consulting will compile the comments and send out the concepts with tracked comments to the RM&E Team and Steering Team by noon on 7/30/2020.
3. RM&E Team members will brief their Steering Team members on the concepts prior to the August 4, 2020 Joint RM&E/Steering Team meeting.

With that, Emily thanked the group and adjourned the meeting.

The next meeting will be a Joint RM&E/Steering Team on August 4, 2020 from 1:30 – 4:30 PM
The next RM&E meeting is scheduled for September 24, 2020

This summary is provided by DS Consulting. Suggested edits are welcome and can be provided to Nancy at nancy@dsconsult.co

Document Review Tracking (Click here for [Master “tracking” Spreadsheet](#))

Document Name	Document Type	Comments Due By	Comments received
FY21 APH-09-01-DET – Evaluate reintroduction strategies for adult UWR Chinook salmon at Big Cliff and Detroit dams: above – versus below dam adult outplanting productivity.	Concept Paper	N/A – Review deferred	
FY19 APH-19-02-FC - Fall Creek AFF yr2.	Concept Paper	7/29/2020	
FY20 JPL-20-01 - Spatiotemporal sources of mortality in juvenile reservoir-reared Chinook salmon.	Concept Paper	7/29/2020	
FY21 APH-21-01 - Rapid Genetic Sorting.	Concept Paper	7/29/2020	
FY21 JPL-XX-21 - Detroit Dam Juvenile Passage IM#5.	Concept Paper	7/29/2020	
FY21 WQFM-XX-21-BCL - Big Cliff TDG IM#6.	Concept Paper	7/29/2020	
FY21 JPL-XX-21 - Foster Dam Juvenile Passage Spill Ops_IM#9.	Research Summary	7/29/2020	
FY21 JPL-XX-21 - Foster Dam Adult Passage Opertaions_TDG_IM #10.	Research Summary	7/29/2020	
FY20 JPL-XX-SYS - Interim Passage and Delayed Mortality.	Concept Paper	7/29/2020	