

**Willamette Action Team for Ecosystem Restoration (WATER)  
Research, Monitoring and Evaluation (RM&E)**

January 4, 2018

[http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/Willamette\\_Coordination/Willamette%20RME/RME.html](http://www.nwd-wc.usace.army.mil/tmt/documents/FPOM/2010/Willamette_Coordination/Willamette%20RME/RME.html)

**Facilitator's Summary**

<b>ACTION</b>	<b>BY WHOM?</b>	<b>BY WHEN?</b>
Finalize and send team 10/4/17, 10/26/17 and 11/20/17 meeting summaries.	DSC	1/11/17
Re-send team USGS Downstream passage report	Rich	ASAP
Send group NMFS' written response regarding the use of summer steelhead for telemetry study.	Diana	<b>[Completed 1/4/18]</b>
Provide regional comments on Pre-Spawn Mortality proposal.	Rich	When available
Schedule joint RM&E/ST meetings.	DSC	ASAP
Submit the WFOP change request for the fin clip collection protocol.	Diana	January 24, 2018
Provide Rich and Fenton with ideas for presenters for the February 6-8, 2018 Willamette Science Review.	RM&E Team	January 11, 2018
Look into potential for a presentation on the lamprey study for the WSR.	Lawrence	January 11, 2018
Register for the 2018 Science Review	RM&E Team	ASAP
Follow up with Brad regarding connecting the Habitat Technical Team with the Sub-basin planning schedule.	Rich	ASAP
Update on Sub-Basin Plan Planning Schedule and Re-introduction Plans	Corps/ ODFW	February ST meeting
Solicit a concept paper for the Middle Fork HOR Collector Survival Study	Rich	January 11, 2018
Check with Lance Kruzic regarding HGMP parameters and limitations regarding the proposed Middle Fork HOR Collector Survival Study	Diana	January 11, 2018
Review concept paper and determine whether there is support to request a proposal for a Middle Fork HOR Collector Survival Study.	RM&E Team	Jan/Feb 2018
Update Middle Fork RM&E Study Schedule to reflect the current status as Version 2 and send it and the updated plan to the team.	Rich	January 11, 2018
Prepare a block treatment study design for the surface spill contemplated under JPL-15-04; share out to region when ready.	Fenton	When available

**Participants in the room:** Leslie Bach (NPCC), Diana Dishman (NMFS), Mike Hudson (USFW), Jake Macdonald (USACE), Rich Piaskowski (USACE), Christine Peterson (BPA), Kelly Reis (ODFW), Ricardo Walker (USACE);

**Participants on the phone:** Scott Fielding (USACE), Fenton Kahn (USACE), Dave Jepsen (ODFW), Jim Myers (NMFS), Jeremy Romer (ODFW), Lawrence Schwabe (Grand Ronde), Jeffrey Ziller (ODFW);

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

### **Welcome and Updates**

Emily welcomed the group and conducted a round of introductions. Rich suggested that the RM&E Meeting Purpose statement be updated to reflect the WATER Guidelines as follows:

***Meeting Purpose:** To seek consensus regarding technical issues on research, monitoring and evaluation needs of the Willamette system and projects in order to support decisions that will be made by managers.*

The group generally agreed to update the meeting purpose statement. Additionally, they approved the 10/4, 10/26 and 11/20 meeting summaries, pending additional edits suggested by Rich. Comments will be incorporated and DS Consulting will send out the final meeting summaries. Emily also checked in on the status of the 11/20/17 action items list, noting the outstanding actions:

- **Action:** Diana will send team NMFS' written response and parameters regarding the use of summer steelhead for telemetry study.
- **Action:** Regarding the Pre-Spawn Mortality study proposal, Rich will provide a compilation of the region's comments to the team and researchers.

### **Joint RM&E/ST meetings**

The team discussed the possibility of holding joint RM&E and Steering Team meetings in the coming months in order to increase efficiency by having all the respective representatives in the room at the same time, provide the Steering Team with more detail on technical issues, and provide the RM&E Team with policy guidance. The group supported joint meetings, noting that it will be helpful when it comes to planning RM&E for FY19. It was suggested that the joint meetings be implemented on a trial basis, which can be adapted to allow for solo- policy or technical conversations as needed, potentially holding the technical conversations for after the joint session. DS Consulting will move forward in scheduling the joint sessions. Emily asked the team to continue to provide feedback on the process as it is implemented.

- **Action:** Schedule joint RM&E and Steering Team sessions for coming months, allowing time for separate team conversations as needed.

### **Paired summer and winter steelhead study for Foster**

Fenton and Diana provided a status update on the paired summer and winter steelhead study for Foster. This study will be implemented this spring. It will use hatchery-origin summer steelhead as surrogates for a side-by-side comparison with winter steelhead during the spring 2018 downstream passage study to determine if it is feasible to use summer steelhead as a surrogate for future passage studies at Foster Dam. (See 11/20/17 RM&E Team meeting summary for more details). NMFS and ODFW supported this approach under certain conditions (NMFS' written response and parameters regarding the use of summer steelhead for telemetry study referred to above) including that:

- the study uses the smallest number of fish possible that will provide meaningful results;

- the study conforms to conditions relating to age and rearing of summer steelhead surrogates;
- the fish not be released in the fall, in order to minimize residualization risk; and
- fin clips be taken to support future genetic analysis regarding summer steelhead introgression.

Diana reported that PNNL provided an analysis of how large the summer steelhead sample size needs to be to get to 80% statistical power to detect a two-sided 5%, 10%, and 15% difference between the groups. The sample sizes ranged from approximately 15,000 – 30,000 fish for 5% precision and 200 – 600 fish for 10% precision. Based on this analysis, the sample size agreed upon for the study is 600 fish, with 200 to be released at low pool and 400 released at high pool. These fish will be double-tagged (JSATS and PIT).

Fenton reported that the fish have been allocated for this study and the study is moving forward. Diana noted that there is no plan for a genetic analysis of the fin clips this spring; however, NMFS and ODFW are requesting that the fin clips be retained with tag codes and available to ODFW and other researchers for future studies. Fenton agreed to share data regarding the fin clips/tags when available.

#### ***Funding of Upper/Lower Bennett counts in support of the temperature study***

This agenda topic was tabled, as the Corps will report on the status of FY18 funding at the 1/30/2018 Steering Team meeting.

#### ***Fin clip collection protocol/WFOP change request***

Diana stated that NMFS will be making a WFOP change request later in January to add fin clip collection as a standard operating practice when fish are handled at traps. Because the FY18 pedigree studies are not moving forward this year, if these data are not collected cohort reconstruction data collection (a 5-year process) would have to start all over to conduct pedigree studies in future years. Collecting and storing fin clips when these fish are handled will allow for genetic pedigree studies to be conducted later when/if funding is available. The WFOP change form process was suggested as a route forward at the December Steering Team meeting.

→ **Action:** Diana will submit the WFOP change request for the fin clip collection protocol by January 24, 2018.

#### ***Update on Corps' Authority for LOP Deep Drawdown***

The Corps does not have an update at this time, however, hopes to be able to provide on at the January 30<sup>th</sup> Steering Team meeting.

#### ***Willamette Science Review February 6-8<sup>th</sup> in Corvallis***

Fenton and Rich are in the process of organizing the Science Review and have put out a request for abstracts. The Review will be held at the LaSells Stewart Center. Team members were reminded to register soon, as the session will likely fill.

→ **Action:** If team members have ideas on potential presenters/topics, provide suggestions to Rich and Fenton by January 11. Rich will reach out to the Habitat Technical Team regarding a presentation and Lawrence will check whether a representative from Grand Ronde is available to present on the lamprey study.

### ***Update on the RM&E Sub-Basin Plan Planning Schedule and ODFW's Reintroduction Plans***

Rich reported that the plans are a priority for the Corps and Brad Eppard has emailed the planning team to encourage progression of the plans. They have edits on the 10% drafts and hope to provide a more detailed status update for the 1/30 Steering Team meeting, including a timeline for the 50% review. The Steering Team has asked that the Habitat Technical Team be notified of the planning schedule and opportunities to provide input.

→ **Action:** Rich will follow-up with Brad to make sure the Habitat Technical Team is aware of the planning schedule.

Kelly Reis stated that she and Dave Jepsen will be the new ODFW representatives on the RM&E Team. Given the transition of new ODFW representation on the RM&E, Kelly expects to have a further update in February. Bernadette will also be contacting Rich with more information. However, she noted that there was a work session for the Middle Fork was held in December and a session on the South Santiam is currently being rescheduled. Rich stated that the Reintroduction plans help flesh out the RM&E plans; the RM&E plans will be most focused on design aspects until they have information regarding the reintroduction plans. The Corps requested a similar 10%/50%/90% draft review process, like the RM&E plans.

→ **Action:** Kelly will provide an update to the WATER teams on the status of the reintroduction plans and opportunities for regional input in February.

### ***Middle Fork Head of Reservoir (HOR) Collector Survival Study***

Rich reminded the team of the background for this proposed study (see discussion in the 11-20-17 RM&E Team meeting summary). This study looks at the SARs of fry collected at HOR for transport or passed at-dam (bypass versus in-river). Because there is not a feasible way of collecting enough naturally-produced fish, hatchery fish have been proposed as a surrogate. As a next step, the Corps suggested getting a proposal so that the team could better evaluate what sample size would be required before a decision is made on whether to move forward with the study.

A concern was raised that complete data from this study would not be available until 2023 and that this might delay the decision point set for 2021. Rich indicated that the Middle Fork plan was developed with this study in the schedule and that it will provide information to support decision making. He noted that other studies have been initiated even though the results may not be available in time for the decision.

ODFW and NMFS raised the concern that the sample size required might bump into the HGMP caps; e.g. the potential sample size over a five-year period could require hundreds of thousands of fish to be released each year and these fish may not be accounted for under the HGMP. Diana agreed to check in on this with Lance Kruzic.

It was suggested that a concept paper with additional key information be requested rather than a full proposal in order to quickly provide initial details to help the region better understand the needs of the study, as hatchery production of the study fish would need to begin soon. The concept paper should provide a power analysis, outline sample sizes, the size of fish being studied, capacity for producing the

hatchery fish and the study schedule. It was also suggested the concept paper consider different operations that could be tested to improve survival.

- **Action:** Diana will check with Lance Kruzic (NMFS), regarding HGMP parameters and limitations. Rich will solicit more details on the study needs from researchers and at the next meeting, the RM&E Team will consider the study needs along with current information about HOR to determine whether there is regional support to move forward with a proposal.

### **Middle Fork RM&E and 2019 Check-in**

Rich led the team through a review of the Middle Fork RM& E Study Schedule with the intent of considering FY19 RM&E needs and whether or not the region is on track. He noted that the studies scheduled seek to compare strategies of passage and include check-in points in 2019 and 2021 that consider what information is available for each alternative and what alternatives should be carried forward or considered further. Once the best passage route is established, the Corps would move into the design phase. He provided a status update on the various passage options:

- **Adult-Trap & Haul:** The Pre-Spawn Mortality study is a year behind as the study was not implemented in 2017 because of poor Chinook adult returns. This study is planned to move forward in FY18.
- **At-dam surface collection:**
  - **JPL-17-04 LOP** (*Estimating survival of juvenile Chinook salmon fry in Lookout Point reservoir*): this study is on track;
  - **JPL- 15-04** (*Behavior, Distribution, and Passage Metrics of Juvenile Chinook Salmon Above and Below Lookout Point Dam*): the first study looked at reservoir movement; the next study will look at dam passage. Fenton confirmed that he will be preparing a block treatment study design for the surface spill spring downstream passage study and will seek feedback from the team on the design after it is prepared. The spill study is contingent on having sufficient stored water in the reservoir (hydrology) this spring.
- **Operations:** As discussed earlier, whether the Corps has authority to perform the Deep Drawdown operation is currently under review. It is hoped that the review on authority will provide guidance on what operations can be done. The team will revisit other alternatives if it is determined that the Deep Drawdown operation cannot happen. The alternatives previously discussed include a Partial Drawdown, Spring/Fall free spill and spring Delayed refill with spill. Fenton noted that a Fall free spill may not be feasible if fish are not passing at the time of the spill. Others suggested there might be a possibility of timing the spill opportunistically with fish passage in years where the reservoir is sufficiently full. Regarding Delayed refill with spill, Rich noted that there are mission impacts that make it a lower priority for the Corps and he would need to discuss feasibility internally to determine what level of mission impact would be allowed.
- **Head of reservoir/In-stream collector:** This includes the SARs study discussed earlier; the study is a year behind as the first juvenile release was originally planned for 2018 and could now happen no earlier than 2019. The HOR workshop was held in 2017. Rich noted that, while there was interest in testing a Merwin-type portable trap, prototype testing (designing something new) was identified as a low priority at the workshop. It was suggested that if the reservoir survival study does not provide sufficient survival information, then other alternatives might need to be considered. The Steering Team would need to provide direction regarding whether to pursue

design of a prototype. Jeff stated that fry survival in the reach downstream from the dam is a huge unknown. Rich indicated it would be helpful to have recommendations on studies relating to rearing capacity. These questions can be part of the discussion for FY19.

- Alternative Comparison: Life-cycle modeling and literature comparisons will be part of FY19 funding discussions.

The team noted that there needs to be a joint Steering and RM&E Team check in on the status of these studies, including the potential path forward if some of these studies cannot move forward or are delayed. For instance, if the Deep Drawdown is not within the Corps authority or Chinook returns are not sufficient to implement the PSM study.

→ **Action Items:** Rich will update the study schedule to reflect the current status as “Version 2” and send it to the team. Fenton will prepare a block treatment study design for the surface spill contemplated under JPL-15-04.

#### ***Update Shasta HOR Collector Study Data***

It is unclear at this time whether this study will proceed due to permitting issues and a shift in priorities by USGS regarding passage alternatives. It is not likely that the data will be available for the 2019 Middle Fork check in.

#### **Closing and Next Steps:**

The Middle Fork plan status will be discussed further at the next RM&E Team meetings and Joint RM&E/Steering Team meeting as part of planning for FY19 RM&E needs.

Emily thanked the group and adjourned the meeting.

*This summary is respectfully submitted by DS Consulting. Suggested edits are welcome and can be sent to nancy@dsconsult.co.*