

**Willamette Action Team for Ecosystem Restoration (WATER)  
RM&E + Steering Team Meeting  
August 27, 2020**

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

**FINAL Meeting Summary**  
[Edited received from ODFW, NPCC, USACE]

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| <b>ACTION</b>   | <b>WHOM?</b>  | <b>BY WHEN?</b> |
|---|---------------|-----------------|
| Discuss RM&E priorities, specifically Corps' RM&E needs; provide guidance to RM&E Team on where to focus their conversations. | Steering Team | September 1     |
| Continue conversations regarding specific concepts and research summaries (see notes below)                                   | RM&E Team     | September 24    |

**Participants on the phone or WebEx video (for all or part of the meeting):** Leslie Bach (NPCC), Ian Chane (Corps), Brad Eppard (Corps), Nancy Gramlich (ODEQ), Mike Hudson (USFWS), David Jepson (ODFW), Fenton Khan (Corps), Marc Liverman (NOAA), Jim Meyers (NOAA), Anne Mullan (NOAA), Rachel Neuenhoff (Corps), Christine Peterson (BPA), Kelly Reis (ODFW), Ida Royer (Corps), Dan Spear (BPA), Lawrence Schwabe (Grand Ronde), David Trachtenberg (Corps), Karl Weist (NPCC).

**Facilitation Team:** Donna Silverberg and Emily Stranz, DS Consulting

**Welcome, Introductions, & Housekeeping**

Facilitator, Donna Silverberg welcomed the group to the meeting and conducted a round of introductions. She reviewed the agenda, noting that the primary purpose of the meeting is to review and discuss WATER member's prioritization of FY21 information needs. Final concept papers and the RM&E Planning table were sent to the group prior to the meeting.

At their August 4<sup>th</sup> meeting, the Joint Steering and RM&E team members reviewed and discussed the seven draft concepts and two draft research summaries provided as the FY21 RM&E package, noting areas of concern, research needs, and where more regional conversation would be beneficial. WATER member comments were provided to the concept authors in writing for consideration for the final documents. Following that conversation, WATER members reviewed the final concepts and provided their agencies 1-5 ranking for each concept. The notes below summarize group conversation during the August 27<sup>th</sup> meeting.

**North Santiam**

**WQTM-XX-21**  
Big Cliff TDG\_IM#6

|          |                 |
|----------|-----------------|
| BPA - 3  | ODFW - 4        |
| CTGR - 4 | USACE - 3       |
| NOAA - 4 | USFWS - 5       |
| ODEQ - 5 | <b>Avg: 4.0</b> |

There was inquiry as to what is intended by “as result of modified operations” as part of this concept. NOAA felt that this may be a mistake, as there are no modified operations anticipated as part of this concept. **The group agreed to discuss and clarify at the next RM&E meeting, when the concept author is in attendance and can clarify.** Additionally, it was requested that the RM&E Team dive further into the **anticipated changes at Big Cliff that could result from operations at Detroit.**

NOAA shared that they are interested in monitoring TDG throughout the year and not only during the night-time operations, as the concept currently notes.

**JPL-XX-21**  
Detroit Dam juvenile passage (IM#5)

|          |                 |
|----------|-----------------|
| BPA - 5  | ODFW - 4        |
| CTGR - 5 | USACE - 5       |
| NOAA - 3 | USFWS - 4       |
| ODEQ - 4 | <b>Avg: 4.3</b> |

NOAA noted that screw-trap monitoring of seasonal rates of passage and other data points will be very helpful to tie to Big Cliff, suggesting that it would also be helpful to think about what can be done in future years (i.e. passage proportions by route). NOAA suggested moving up some of the “additional year objectives” to this year, as those data points would be good to start collecting now. The Corps noted that they are working to get the screw-traps in place as soon as possible and the additional objectives for future years will take more time and resources to implement. The Steering Team suggested that the **RM&E team continue conversations around what data can be gathered this year.**

DET Pedigree Analysis

|           |                 |
|-----------|-----------------|
| BPA - n/a | ODFW - 4        |
| CTGR - 3  | USACE - n/a     |
| NOAA - 4  | USFWS - 5       |
| ODEQ - 4  | <b>Avg: 4.0</b> |

This concept requests annual pedigree analysis in the North Santiam. CTGR suggested that this work could piggy-back on other work, such as the rapid genetic sorting effort if it is applicable to other subbasins. **The Corps noted that they did not provide a ranking and would like more conversation on this concept at the RM&E level to better understand the expectations.** From the Corps’ perspective, their next step is to analyze the samples that were collected for the last few years; samples will be collected annually and analyzed every 5 years according to the Hatchery BiOp. Genetic sampling in the North Santiam was extended through 2020, however, this analysis will then also shift to the 5-year schedule.

ODFW echoed CTGR’s interest in collecting data for short-term fish management efforts, noting that there is a need for more timely survival data. A 5-year data collection cycle delays information and then requires a retrospective assessment. Management decisions such as which fish can be moved upstream in the short-term are informed by pedigree data. NOAA suggested tabling this concept until after the current samples are analyzed and then using that data to clarify what questions the rapid genetic sorting effort could respond to. **The RM&E Team will circle back on this concept to clarify next steps.**

**South Santiam**

**APH-21-01**  
Rapid Genetic Sorting

There were no clarifying questions or additional comments regarding this concept.

|   |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
|---|--|----------|----------|-------------|----------|-----------|----------|-----------------|---|----------|--|-----------|--|-----------|--|-----------------|--|--|
| <table border="1"> <tr><td>BPA - 3</td><td>ODFW - 4</td></tr> <tr><td>CTGR - 5</td><td>USACE - 3</td></tr> <tr><td>NOAA - 5</td><td>USFWS - 4</td></tr> <tr><td>ODEQ - 4</td><td><b>Avg: 4.0</b></td></tr> </table>   | BPA - 3  | ODFW - 4 | CTGR - 5 | USACE - 3   | NOAA - 5 | USFWS - 4 | ODEQ - 4 | <b>Avg: 4.0</b> | <table border="1"> <tr><td>ODFW - 4</td><td></td></tr> <tr><td>USACE - 3</td><td></td></tr> <tr><td>USFWS - 4</td><td></td></tr> <tr><td><b>Avg: 4.0</b></td><td></td></tr> </table>  | ODFW - 4 |  | USACE - 3 |  | USFWS - 4 |  | <b>Avg: 4.0</b> |  |  |
| BPA - 3   | ODFW - 4   |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| CTGR - 5  | USACE - 3  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| NOAA - 5  | USFWS - 4  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| ODEQ - 4  | <b>Avg: 4.0</b>  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| ODFW - 4  |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| USACE - 3   |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| USFWS - 4   |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <b>Avg: 4.0</b>   |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <b>Middle Fork</b>  |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <p><b>APH-19-02-FC</b><br/>Fall Creek adult fish facility year-2 evaluation</p> <table border="1"> <tr><td>BPA - 5</td><td>ODFW - 5</td></tr> <tr><td>CTGR - 5</td><td>USACE - 5</td></tr> <tr><td>NOAA - 3</td><td>USFWS - 4</td></tr> <tr><td>ODEQ - 5</td><td><b>Avg: 4.6</b></td></tr> </table>                         | BPA - 5  | ODFW - 5 | CTGR - 5 | USACE - 5   | NOAA - 3 | USFWS - 4 | ODEQ - 5 | <b>Avg: 4.6</b> | <p>There were no clarifying questions or additional comments regarding this concept.</p>  |          |  |           |  |           |  |                 |  |  |
| BPA - 5   | ODFW - 5   |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| CTGR - 5  | USACE - 5  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| NOAA - 3  | USFWS - 4  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| ODEQ - 5  | <b>Avg: 4.6</b>  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <p><b>JPL-20-01</b> Spatiotemporal sources of mortality in juvenile reservoir-reared Chinook salmon</p> <table border="1"> <tr><td>BPA - 5</td><td>ODFW - 5</td></tr> <tr><td>CTGR - 3</td><td>USACE - 4</td></tr> <tr><td>NOAA - 3</td><td>USFWS - 3</td></tr> <tr><td>ODEQ - 5</td><td><b>Avg: 4.0</b></td></tr> </table> | BPA - 5  | ODFW - 5 | CTGR - 3 | USACE - 4   | NOAA - 3 | USFWS - 3 | ODEQ - 5 | <b>Avg: 4.0</b> | <p>The Corps noted that via comments, NOAA suggested that downstream passage survival be incorporated into this concept. The Corps felt that this concept is intended to consider reservoir survival and not downstream survival, thus they did not incorporate the suggestion.</p> <p>Via comments, ODFW suggested that the concept could provide information on how to deal with predation and other losses of survival in the system, noting that information on how predation reduction could increase survival in the reservoir would be helpful. The Corps noted that they are unsure if the researcher will be able to add those co-variants into the model, as the functional relationship may not be able to be pulled out of the data they have. However, the Corps can add a hypothesis to this concept to represent this data need; alternatively, it could be added during the pre-proposal phase.</p> |          |  |           |  |           |  |                 |  |  |
| BPA - 5   | ODFW - 5   |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| CTGR - 3  | USACE - 4  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| NOAA - 3  | USFWS - 3  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| ODEQ - 5  | <b>Avg: 4.0</b>  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <b>Systemwide</b>   |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <p><b>JPL-XX-SYS</b> Interim Measures Passage and Survival</p> <table border="1"> <tr><td>BPA - 1</td><td>ODFW - 4</td></tr> <tr><td>CTGR - 4</td><td>USACE - n/a</td></tr> <tr><td>NOAA - 5</td><td>USFWS - 5</td></tr> <tr><td>ODEQ - 4</td><td><b>Avg: 3.8</b></td></tr> </table>  | BPA - 1  | ODFW - 4 | CTGR - 4 | USACE - n/a | NOAA - 5 | USFWS - 5 | ODEQ - 4 | <b>Avg: 3.8</b> | <p>ODFW, CTGR, NOAA, and USFWS all supported this data need, noting that the interim measures need to be monitored to ensure effectiveness, adaptively manage, and learn from implementation. ODFW felt that the concept addresses data gaps around survival that are not fully addressed with screw-trapping. They suggested, and others echoed, that future conversations around the monitoring priorities are needed and in a timely manner to allow for implementation.</p> <p>The Corps also signaled a need for more conversation on this concept, noting that they did not provide a ranking due to the feeling that there is a lot of detail in the concept that needs more discussion.</p> <p><b><u>The RM&amp;E Team will discuss the details of this concept and provide an update to the Steering Team.</u></b></p>   |          |  |           |  |           |  |                 |  |  |
| BPA - 1   | ODFW - 4   |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| CTGR - 4  | USACE - n/a  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| NOAA - 5  | USFWS - 5  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| ODEQ - 4  | <b>Avg: 3.8</b>  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <b>Research Summaries</b>   |  |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |
| <p><b>JPL-XX-21</b><br/>Foster Dam Adult Passage Operations_TDG_IM #10</p>  | <p>The Corps reminded the group that this research summary was provided because they feel that there is sufficient information on the efficacy of the adult passage operations at Foster and no additional RM&amp;E is needed. The</p> |          |          |             |          |           |          |                 |   |          |  |           |  |           |  |                 |  |  |

|  |   |
|--|---|
| <p>Not a concept - no ranking</p>  | <p>Corps provided a summary of the research they relied on for their conclusion.</p> <p>There will be some data collected during this operation, such as water temperature and TDG, as well as fish collection numbers; this information will be summarized at the end of the year. USFWS commented that there should be effectiveness monitoring and that the monitoring should be explicitly called out in the concept paper.</p>   |
| <p><b>JPL-XX-21</b><br/>Foster Dam Juvenile Passage_Spill Ops_IM#9</p> <p>Not a concept - no ranking</p> | <p>The Corps reminded the group that this research summary was provided because they feel that there is sufficient information on the efficacy of the juvenile passage operations at Foster. There are 3-5 years of data on this operation.</p> <p>ODFW and NOAA suggested that timing of the night-time spill operations be shifted later in the spring/early summer months (May-June) to adjust to dusk to dawn hours. This edit was incorporated into the operations.</p> <p>USFWS noted that they would like add effectiveness monitoring of the operations, noting the question that if this operational action is sufficient for juvenile passage, why is a weir still in consideration? The Corps did not incorporate this comment into the concept paper and wanted more information regarding what additional monitoring was desired. Mike noted that he would like to see evaluation objectives for all interim operations, stating that it is not enough to say that spill will increase passage. The data needs to be collected to allow for analysis and adjustments if needed. NOAA echoed the desire for monitoring the operation.</p> |

The group broke into agency/government caucus' and discussed the region's rankings. Following the caucus', the WATER teams reconvened and reflected on the set of concepts, information needs, and rankings. The following reflections and comments were shared.

- **ODFW** felt strongly that the region needs to dive deep into how fish benefits are being evaluated to confidently state that actions carried out are improving fish passage survival. Monitoring the interim measures is a key piece of the data set needed to clarify if there is a benefit or not. They suggested that information needs to be collected in a way that can inform any improvements needed if the expected benefits are not realized. They supported more conversation on the Interim Measures Passage and Survival concept, noting that the monitoring is vital, and the details needs to be fleshed out. USFWS, CTGR, NPCC and NOAA all echoed the need for monitoring the interim measures.
- **NOAA** noted that they did not provide rankings for the research summaries and generally ranked low the concepts that they felt had little benefit to fish passage. They provided a "3" on the Detroit Dam Juvenile Passage concept but explained that if the out-year objectives were implemented sooner, they would change their ranking to a "4".
- **BPA** shared that although they feel that there is a need to monitor the interim measures generally, they gave the Interim Measures Passage and Survival concept a "soft 1" due to the reference to delayed mortality noted in the draft concept title. Pointing to the ISAB report on delayed mortality, BPA noted that it is hard to measure delayed mortality separate from other impacts. On the Columbia River, the conversation has shifted to focus on the "carry over effect" on other life stages. This may be a helpful shift for conversations on the Willamette system.

Additionally, BPA noted that they feel that the Spatiotemporal Sources of Mortality in Juvenile Reservoir-Reared Chinook Salmon concept is very important. The passage fix may not be for some time and so there is a need to know more about survival and rearing in the reservoir.

- **FWS** did not have any additional comments, however, reiterated their support for comments previously made by CTGR, ODFW, and NOAA regarding the various projects and the need to talk about delayed mortality.
- **NPCC** noted that they are not a ranking member of the WATER team, so did not provide any rankings. However, they registered their support for monitoring the interim measures. They expressed concern with the research summary approach to two of the interim measures, noting that continued data collection is needed and that the summaries needed to become concept papers.
- **CORPS** acknowledged that they hear WATER partner's interest in monitoring all the interim measures, even #9 and 10, for which the Corps felt there was already sufficient information. They noted that once the research summaries are complete, they will be provided to the RM&E Team for review and discussion on monitoring objectives. Following those discussions, the next step would be to draft concept papers for the Steering Team to rank.
- **CTGR and ODEQ** did not have additional comments.

### **Next Steps**

There was conversation around the funding outlook for FY21 and concern as to whether very many of the concepts would be funded due to limitations. The Corps noted that they will have an updated FY21 budget in mid-September and will provide that to the Steering Team. They are currently working to reallocate RM&E funds from the two line items provided to the Willamette. Ian noted that the prioritization process is a fundamental part of identifying what the needs are and what the capability is. If the Corps receives additional funding, they will need to have the research positioned to implement. Thinking strategically about the priorities, timing and cost of RM&E is necessary.

There was concern that the region is not getting to the best potential outcomes given the funding that will be available. Ian stressed that there will be research dollars for FY21 and the Corps needs to know where the priorities are for research.

Moving forward, the Steering Team will discuss any research priorities that the Corps has and provide additional guidance to the RM&E Team for where to focus their conversations. The group acknowledged that these are not going to be easy conversations, so they need to be strategic about how they are addressed. Specifically, more conversation is needed within the Corps regarding the Interim Measure Passage and Survival concept. It is also important to look at what data is available, how that can inform the future, and what is still needed. The RM&E Team will continue conversations on the nuances of the concepts (noted above) and keep the Steering Team updated on conversations to inform any needed changes to the concept rankings. If more concepts are developed, they will be incorporated into the prioritization process via the RM&E and then Steering Teams.

With that, Donna thanked the Steering and RM&E Team members and the meeting was adjourned

**The next Steering Team meeting is scheduled at 12:30 on September 1<sup>st</sup>.  
The next RM&E Team meeting is a 9:00 on September 24<sup>th</sup>.**

*This summary is respectfully submitted by the impartial facilitation team at DS Consulting.  
Suggested edits are welcome and can be sent to [emily@dsconsult.co](mailto:emily@dsconsult.co).*