

**Willamette Action Team for Ecosystem Restoration (WATER)
Research, Monitoring and Evaluation (RM&E) Team Meeting
June 23, 2016**

FACILITATION TEAM’S SUMMARY

The following summary is intended to capture basic discussion, decisions and actions, as well as point out actions or issues that may need further discussion at upcoming meetings. This summary is not intended to be the “record” of the meeting, only a reminder for RM&E members.

ACTION	WHO	BY WHEN
Meet with DS Consulting to discuss drafting management questions that meet Corps funding criteria	Rich, Bernadette, Stephanie	7/6
Check internally for funding source criteria/guidelines; share with the RM&E Team	Rich	July RM&E meeting
Clarify and define common terms used in funding decisions (effectiveness, long-term monitoring, etc.)	RM&E	July RM&E meeting
Meet to discuss the RPAs as they relate to establishing monitoring criteria	Rich, Stephanie, others?	July RM&E meeting
Ask the Steering Committee to discuss options for BPA funding long term monitoring projects	RM&E	July SC meeting?

RM&E Members present: Stephanie Burchfield (NMFS), Joyce Casey (USACE), Chris Caudill (University of Idaho), Brad Eppard (USACE), Tom Friesen (ODFW), Bernadette Graham-Hudson (ODFW), Mike Hudson (USFWS), Melissa Jundt (NMFS), Christine Petersen (BPA), Rich Piaskowski (USACE), Dan Spear (BPA), Karl Weist (NPCC);

RM&E Members on the phone for all or part of the meeting: Dave Leonhardt (USACE), Jim Myers (NMFS), Lawrence Schwabe (CTGR);

Facilitation Team: Facilitator: Emily Plummer; Facilitation Support: Tory Hines, DS Consulting.

Welcome, Introductions, and Process

Emily Plummer, DS Consulting Facilitator, welcomed the group and noted that the purpose of the day’s session was to meet the facilitation team, review and discuss the preliminary rankings of the FY17 concept paper objectives to support the completion of the final agency priorities by July 12, 2016.

Emily explained that DS Consulting was brought on to help the WATER RM&E Team, Steering Committee and Managers Team clarify process, decision making and communication within and amongst the teams. She shared that DS Consulting was integral in the development of the Columbia River Regional Forum in 1998 and still works with regional partners through the Technical Management Team and Regional Implementation Oversight Group. DS Consulting has conducted assessment interviews with the RM&E Team members and participants to better understand the challenges and strengths of the Team; moving forward DS Consulting will facilitate meetings, provide agendas and summaries, and work with the group to ensure a meaningful and productive process. Additionally, Emily noted that the DS Consulting Team is trained as both facilitators and mediators, so if there is a need for one on one mediated conversations, they are available to assist.

The group reviewed and agreed to use the Discussion Protocols (attached) and the *Five Fingers of Consensus*. The Five Fingers of Consensus is a tool used to gauge the level of support for actions or

decisions amongst group members. Using this tool, individuals are asked to show the group where they are on an issue by raising one or more fingers, as follows:

- 1 - I can say an enthusiastic ‘yes’ to the decision (or action).
- 2 - I find the decision acceptable and have no serious objections. Improvements could be made, but aren’t necessary.
- 3 - I can live with the decision, but I’m not overly enthusiastic. I have questions about the strengths & weaknesses and need more discussion or more work done.
- 4 - I do not fully agree with the decision and need to register concern. However, I will not block the decision. More discussion is necessary for full support.
- 5 - I do not agree with the decision and will actively block its movement. More discussion is necessary or an alternative resolution is needed.

Review Meeting Minutes

The May 26th meeting minutes were reviewed and approved by RM&E team members and alternates (1s and 2s using the Five Fingers of Consensus).

Discussion on Corps Decision Making & Funding Processes, RM&E Prioritization

The Corps’ Decision Making Process - The group discussed the U.S. Army Corps of Engineers’ (Corps) decision making and how RM&E input is incorporated into that process. Rich Piaskowski (Corps) explained that there are multiple factors involved in deciding which projects are funded. As part of their process, **the Corps relies on the RM&E Team for their scientific knowledge, recommendations and input in regards to implementing the Willamette River Biological Opinion (BiOp)**. He shared that the RM&E Team’s discussions, concept papers, and ranking are considered in conjunction with internal Corps discussions with Division, Districts, PDTs (Internal Team) and the Program Manager. Rich explained the relationship between the RM&E Team, the Corps Internal Team, and the Corps Program Manager. Rich shares RM&E input with the Internal Team and the Program Manager to inform decision making and refine actions. The Internal Team provides their project ranking to the RM&E Team. The Corps Program Manager provides the sideboards of the Corps’ broader program needs, funding and constraints to the Internal Team and the RM&E Team. Rich noted that the Corps is concerned with ‘scope creep’ and their ability to defend the program if the scope becomes too broad. On the other hand, Bernadette Graham-Hudson (ODFW) expressed that ODFW is concerned with ‘scope narrowing’, and expressed interest in making sure that all of the BiOp RPAs are funded and implemented.



The Corps' Funding Process - The group discussed the two sources of funding that the Corps uses to fund projects in the Willamette system: Columbia River Fish Mitigation (CFRM) funds and Operations and Maintenance (O&M) funds. The Corps explained that the criteria for funding is very specific and depends on the stage of the project or action. Actions that qualify for CFRM funding include:

- ESA listed anadromous fish research for planning and design;
- Implementation of infrastructure improvements to address effects of Corps' operated dams in the Willamette Basin on listed anadromous fish, or
- Effectiveness evaluation of specific action to assess if it is meeting performance goals for listed anadromous fish.

Once an action is complete and the effectiveness has been monitored (for ~1-2 years), the project would be considered 'in service' and any additional monitoring is considered to be 'long-term' monitoring, thus is paid for with O&M funds. Stephanie Burchfield (NMFS) inquired as to where adaptive management fits into the Corps funding criteria. Rich explained, if after the performance evaluation period an action is not performing as planned, it becomes a policy call of whether there are improvements that could be made to achieve the stated goals, at which point the funding source could revert back to CFRM funds.

Multiple RM&E Team members expressed confusion around the Corps funding determinations and requested clearer criteria to know when an action is considered to be in evaluation or long-term monitoring. Additionally, there was concern that the criteria for funding sources changes, for example, instream flow evaluation and spawning surveys have shifted from one funding source to the other. Regarding the spawning surveys Rich noted that the Corps changed from O&M funding for spawning surveys above Willamette Dams to CFRM funding since the purpose of above dams surveys was to inform the fish passage and reintroduction strategy of natural-origin production above dams to address the NMFS BiOp, not the effects of the hatchery mitigation program (which is the intent of the below-dam spawning surveys as funded by O&M). Joyce Casey (Corps) asked for feedback from the team to improve understanding and transparency of the funding process. Brad Eppard (Corps) thought that the Districts may have funding source guidelines available; he will follow up with Walla-Walla and Portland Districts. Mike Hudson (USFWS) suggested that the RM&E team establish effectiveness monitoring criteria ahead of time so that they know when a project moves from one funding source to the other. However, Rich noted that the Corps and NMFS need to meet to discuss the RPAs and criteria before discussing with the RM&E Team.

→ **ACTION: Rich and Brad will consult internally to see if he can find funding source guidelines to share with the RM&E Team.**

→ **ACTION: The Corps and NMFS will meet separately to discuss the RPAs and criteria for effectiveness monitoring.**

Mike Hudson (USFWS) observed that the agencies have unique definitions of these concepts being discussed and recommended that the group work towards collective understanding on the meaning of evaluation, effectiveness monitoring, long-term monitoring, etc. Mike continued that once the group agrees on those definitions, then the group can discuss how much of each is needed, when does each occur and conclude and how each is funded. The group generally supported this idea.

→ **ACTION: The RM&E Team will work to develop understanding around the definition of evaluation, effectiveness monitoring, long-term monitoring and terms commonly used that the agencies may be interpreting differently.**

Stephanie asked if BPA could fund what the Corps now considers long-term monitoring. Dan Spear (BPA) said that was something that could be discussed at the Steering Team.

→ **ACTION: The RM&E Team will ask the Steering Team to discuss the potential for BPA to fund long-term monitoring.**

RM&E Prioritization Process – The group discussed their challenges with the prioritization process. It was noted that Rich proposed a revised process that the group has not implemented. They generated ideas on how to improve the current RM&E prioritization process:

- Rank all the studies by objective from highest priority to lowest priority with the Corps drawing a cut line indicating roughly how much can be funded – like the Columbia River SLT group.
- Include ballpark estimates (or simple 1,2,3 \$) of how much the study would cost.
- Make sure to rank objectives based on biological needs, regardless of funding sources.
- Each agency rank projects from 1st to 22nd in priority; the Corps would insert a funding cut line to see which projects are above or below, then compare and discuss the overlap among agency priorities.
- Rank objectives from 1 to 3, instead of 1 to 5.
- Average the scores of each RM&E Team member to come up with a team rating.
- Identify the highest and lowest priorities.
- Identify the studies that are ‘wins’.
- Identify the Corps’ ‘must have’ projects/objectives.
- Limit concept papers to one page, highlighting the key points and how it relates to the RPA. This will reduce the workload on RM&E members.
- Make sure that concept papers include valuable background information and highlight data gaps.

NMFS stated that funding is an important element to the RM&E ranking process, as it allows the RM&E Team to become efficient consumers of the information. Brad Eppard (Corps) said that the Corps cannot share cost information with the RM&E Team because it is not permitted by their contracting rules. He also does not believe the RM&E Team should make any recommendations based on cost, but instead, solely on biological need.

RM&E Team members shared that they feel defeated by the RM&E prioritization process, as they put a lot of time and effort in these discussions, developing concept papers and prioritizing, however, in the end, it seems that the Corps does not highly regard the RM&E recommendations. In the past, the Corps has funded studies that were ranked low priority by others on the RM&E Team, while not funding studies that were ranked as high priority by others on the RM&E Team. Corps stated that the team is not a consensus body; the Corps takes recommendations and input from the RM&E Team. Information needs

of the Corps can be different from other organizations on the RM&E Team since the Corps is responsible for planning, designing, and constructing and implementing these actions to address the BA and BiOp. Averaging the team scores doesn't represent the Corps' data needs, or reflect any other individual agencies recommendations, and thus they are opposed to averaging the individual RM&E Team members' scores.

It was noted that the RM&E Team is stumbling on the lack of common goals, understanding, and objective and clear goals. Rich suggested that the concept papers need to articulate the management questions that are addressed through the study to address the BiOp. Bernadette responded that they have provided the management questions and rationale. The group observed that because of different interpretations of what constitutes a 'management question' the member agencies were essentially talking past each other. It was suggested that the Corps, NMFS, and ODFW get together to discuss how the management questions and rationale need to be framed in order to fit better into the Corps funding criteria.

→ **ACTION: DS Consulting will coordinate a time for the Corps, NMFS, and ODFW to get together to discuss the specific framing needed to work within the Corps funding criteria.**

Preliminary Rankings FY17 Concept Paper Objectives

The group continued to discuss ways to efficiently rank the 22 studies and associated objectives developed for FY17. It was noted that rankings determined today are only preliminary and that the final ranking is scheduled to be complete by July 12 to solicit proposals. It was noted that the proposal process will not take as long for established projects, thus the timeline is flexible.

Ranking Strategies by Agency – To build understanding of how each agency ranks the projects and objectives using the 1-5 scale, RM&E members shared insights on their internal process:

- NMFS considered if the project was RPA required; gave most objectives a 3, 4, or 5 because NMFS felt most objectives constituted mid to high priority. NMFS shared that they have policy direction to obtain more data on the Middle Fork of the Willamette, which also influenced how they ranked certain projects.
- ODFW noted that projects that received a 1 are still important, but compared to others seemed less urgent. They considered past studies and ranked the previous year's investment higher. Additionally, they ranked data that is useful to management decisions higher.
- USFWS considered the information needs and prioritized projects that benefit salmon, steelhead and other non-listed FWS species such as lamprey and Bull Trout. They took all 22 projects and prioritized them 1 through 22, then split them up so that 6 received 5s, 6 received 4s, 6 received 3s, 4 received 2s.
- The Corps prioritized based off of the question: is there an information need or not? Is the need urgent? If yes, the project received a 5. They also looked at the program needs to proceed through design.
- BPA looked at data needs and ranked based on where the needs were greatest, with consideration of the master plan for addressing the tributaries.
- NPCC reviewed the 22 projects and asked: how does it implement the BiOp and is this project informed by the Configurations Operations Plan (COP). NPCC also looked at timing and asked whether this project needs to move forward this year or whether it can withstand a delay.
- CTGR ranked projects based on baseline operations and known alternative operations.

USFWS asked the Corps to consider if outside of the Corps' high priority projects, is there any room to discuss the other concepts (i.e. those ranked low by the Corps) and which of those the Corps has the most interest? Rich said that he would talk internally and get back to the RM&E on this.

Identifying 'Wins' - The group walked through the preliminary prioritization list to identify “wins” or projects with similar ranking positions from all of the agencies. The following projects were listed as ‘wins’:

- APH -09-01-FOS (all agencies agreed that this is a priority, Corps is not prioritizing this for Chinook, only steelhead).
- JPL-17-06-DET (all agencies agreed that this is a high priority)
- JPL-17-05-FC (most of the agencies agreed that this is a high priority; NMFS asked that the Corps consider an alternate operation or consider it for next year)
- APH-17-03-SYS (all agencies agreed that this is not a high priority)
- APH-17-04-MK (all agencies agreed that this is not a high priority)
- JPL-17-04-LOP (all agencies agreed that this is a high priority)

The projects that were ‘wins’ and prioritized to be funded were discussed by the team:

APH-09-01-FOS – Evaluate strategies for reintroduction of adult UWR steelhead above Foster Dam -

The group agreed that the project could move forward as a high priority for steelhead. For Chinook, the Corps felt that the data highlighted a management need due to a high proportion of unmarked hatchery fish moving upstream. Additionally, there is a 15-25% fallback rate based on 2 years of study, for fish released to Foster Reservoir, which may require curtailing of reservoir releases. The Corps asked what others thought of alternate release strategies, given the high fallback numbers. ODFW stated that more than 1 year of data is needed to produce an accurate assessment. Last year in particular was a distinct weather year and it would be helpful to have additional data on how fish respond to the holding facility compared to the reservoir. NMFS indicated the 15-25% fall back rate for reservoir-released adults was concerning, but felt there was not enough data to make a determination. Chris Caudill (University of Idaho) indicated that the origin of the fish hadn’t been assessed, suggesting the fallback rate could be different for above- and below-dam origin adults released into Foster Reservoir. The Corps suggested a back analysis (using genetic pedigree) would be helpful to see of the fish that fell back, which were from above the dam. Chris thought that he may be able to get this from the data.

The group discussed timelines and why or why not data is vital the year before an operation commences. ODFW felt that trends in fish populations are highlighted with consecutive years of data and that acquiring data before the operation change occurs may produce insight as to why a later trend occurs. From ODFW’s perspective, this type of data informs fish passage and other management decisions and supports additional similar studies. ODFW was concerned that terminating the data collection before implementation will create data gaps. The Corps noted that there are four years of data available to examine fallback rates and relationships to pedigree and that data answers the management questions relating to the adult trap and haul program above Foster Dam. ODFW clarified that the impacts of operational changes need to be assessed and although there is not a specific problem with the Chinook spawning distribution above Foster Dam, it should be tracked. The Corps thought that this study sounded more like long-term monitoring and thus falls under O&M funding. ODFW noted that the RPA measure that calls for above dam spawning surveys annually is intended to inform the broader BiOp implementation.

The group continued to discuss how to define a management question that meets the Corps’ needs. The Corps asks that the management question be tied to a specific BiOp action in order for the Corps to consider it for CRFM funding. Because this study concept (additional years of Chinook genetic pedigree) does not inform planning or evaluation of a specific action, the Corps considers it as monitoring. The

Corps noted that monitoring plans haven't been discussed among the Action Agencies and NMFS, or with the RM&E Team.

JPL-17-06-DET - Rearing and migration patterns of juvenile winter steelhead in the North Santiam above Detroit Dam – All agencies ranked this as high priority, however, the Corps clarified that they ranked it high if using only natural production. NMFS asked the Corps to clarify if they meant that they only rank this concept high if adult NORs are released, not fry/parr or eggs? The Corps said the objectives are best met through evaluation of natural production or release of early stage (fry/parr or eggs) hatchery fish. ODFW asked why the Corps wants to only use natural production. The Corps noted that they were concerned with appropriateness and feasibility of releasing PIT-tagged hatchery juveniles (≥ 65 mm FL) for meeting the study objectives of evaluating migration and rearing patterns, but recognized there are trade-offs with the ability to mark fish at smaller sizes for completing the study. ODFW continued, asking if the thought is to outplant adult steelhead, to which the Corps responded ideally, but that hatchery releases could be useful depending on what life stage they are released. It was suggested that methodology is determined during the proposal process.

JPL-17-05-FC – Evaluation of fish passage and survival under an alternative operation at Fall Creek Dam – The agencies similarly ranked JPL-17-05-FC as high priority. However, the Corps and BPA ranked objective 3 with a 1, differing from the other agencies who ranked objective 3 with 3s and 4s. Rich noted the Corps is concerned with the impacts of the proposed operation, to not refill the reservoir in the spring, to the small wild population of Chinook recently established above Fall Creek. Rich suggested a study approach to address the biological objectives of this study without implementing the operation would be to release hatchery-origin Chinook in spring using parental-based tags to assess differences in SARS among those rearing in the reservoir under existing conditions compared to those released below the reservoir. NMFS and ODFW did not think this approach would sufficiently address the study objectives. USFWS suggested that rather than putting hatchery fish above the dam and conducting paired releases, the catch and release could occur downstream with natural production. BPA commented that from their perspective, Fall Creek is a successful operation with high SARs and that maybe the program should be a lower priority. ODFW noted that the success at Fall Creek is due to an artificial situation, it is not clear whether survival is successful.

The Corps stated that the operation must be clearly defined before it can be considered and evaluated against other missions. NMFS recommended testing with an alternative operation, for instance, not refilling in the spring, and using a head-of-reservoir screw trap to estimate numbers of fish entering reservoir. This type of study could also test the value of reservoir rearing versus passing fry downstream. With the alternative operation, data could be compared by year. The Corps felt that comparing across years would be a challenge based on varying factors like weather and stream conditions. NMFS noted that all study methods have variables which produce pros and cons.

The Corps noted it recently adopted the winter drawdown as the long-term operation at Fall Creek, for downstream fish passage, with NMFS approval. The Corps acknowledged that there are issues with timing and impacts to implementing an alternative operation such as not refilling in spring. NMFS stated that the winter operation is a good start, but NMFS would like to see more operations that allow the juvenile fish to leave the reservoir on their terms. Currently the flows are too low out of Fall Creek, confining fish to the reservoir until the winter operation. BPA asked if there was any way to mark smaller fish who exit the reservoir in order to track the successes and failures of returns. ODFW stated it would be helpful to know the age of fish returning; younger fish are not as productive, so determining age could produce a measure of productivity. NMFS requested that the Corps consider alternative operations in 2017 for JPL-17-05-FC.

The Corps' High Priority Projects - The RM&E Team asked the Corps to walk through the concepts that they ranked as high priority. Rich provided the following list and rationale:

APH-09-01-DET – Evaluate reintroduction strategies for adult UWR Chinook Salmon above Big Cliff and Detroit dams - The Corps highlighted APH-09-01-DET objectives 1, 5 and 7 as high priorities. The Corps stated that a reintroduction plan identifies the data needs necessary to evaluate reintroduction. NMFS does not view objective 1 as a high priority because they view development of a reintroduction plan as a responsibility of the fish management agencies (NMFS and ODFW for Chinook and steelhead). The Corps stated that they have questions of what uncertainty there is with reintroduction and data is needed to refine this aspect. The Corps also reiterated that they are unable to identify a research need without a plan. NMFS replied that they intend to prepare such a plan once the HGMPs are submitted, which we expect to happen soon.

APH-15-01-SYS- Evaluation of the trap and transport of adult Chinook salmon above USACE project dams in the Upper Willamette Basin - The Corps noted that they had recommended this concept be integrated with APH-09-01 concepts for each sub-basin, since the management purposes are the same (inform the development of reintroduction and trap and transport practices), however the RM&E Team requested they remain separate. For this reason there is a lot of overlap between APH-15-01-SYS and APH-09-01 concepts for each sub-basin. Rich explained that for above Detroit there are currently two critical questions: 1) determine when natural origin fish go upstream; and 2) evaluate homing and spawning of adults released into Detroit Reservoir as a strategy to support volitional homing or natural origin adults into the Brienbush or North Santiam rivers. USFWS also noted that there is a lot of interplay between this objective and others discussed above; the group generally agreed. For Foster, Rich discussed questions remain regarding the best release strategy (hold, reservoir release, or upstream releases) to minimize PSM and maximize spawning success for Chinook.

APH-15-05-FOS (2-5) Evaluation of Foster adult fish trap performance -The Corps noted that objective 2 is missing water quality and temperature in the forebay and tailrace, and is necessary in order to evaluate the problem. The Corps stated that study is underway in 2016 but expecting more than one year of data may be needed to properly evaluate this project.

APH-17-01-MF – Pre-spawning mortality of Middle Fork Willamette Chinook salmon: improving trap, transport and release operations - The Corps stated that the pre-spawning mortality data needs a controlled experimental design in order to identify what factors, or combinations of factors, minimize pre-spawn mortality. The factors to look at would include densities, distance from release locations, timing, and anesthetics. The Corps would like to investigate the extent pre-spawning mortality is manageable to help determine whether sustainable fish populations above the Middle Fork dams are feasible. Rich noted that high pre-spawn mortality still occurs where new traps have been installed (Foster) and where best management practices are being applied (Fall Creek), and therefore it isn't clear if pre-spawn mortality in the Middle Fork can be effectively reduced. ODFW stated that this is not an urgent data request. The Corps noted that in the COP there is a 5-year plan which sets a timeline for discussions on the Middle Fork and fish passage results. It is worth collecting data within the next few years. NMFS does not agree that pre-spawning mortality above MFW dams under current conditions is a barrier to establishing sustainable fish populations in that basin. From NMFS' perspective, the best way to address pre-spawning mortality is to build the Dexter trap. Nonetheless, NMFS recognized that if this study is a "must-have" for the Corps, then NMFS was not opposed to it.

Next Steps

The DS Consulting Team will work with NMFS, ODFW, and the Corps to clarify how to frame management questions that meet the Corps decision making and funding criteria. Additionally, they will work with the Corps to further clarify the Corps decision making process and criteria, prior to the next

RM&E meeting. The RM&E Team will work to get final prioritization rankings to the Corps by July 12th. Rich will present the RM&E rankings to the Steering Committee at their July 14th meeting. The group agreed to meet in July to continue discussions around group process, the DS Consulting Team will send a Doodle poll to schedule.

Emily thanked the RM&E team for their attention and effort in today's discussions, and with that, the meeting was adjourned.

** This summary is respectfully submitted by the DS Consulting Facilitation Team; suggested edits are welcome and can be sent to Emily Plummer at emily@dsconsult.co. **

Discussion Protocols

- ◆ Approach the process and the discussions with a willingness to hear others' views so you may solve problems together.
- ◆ Let the mediator/facilitator know when you would like to speak or ask a question.
- ◆ When you do speak:
 - Speak as though you are right
 - Listen as though you may be wrong
 - Maintain a professional tone and approach to all discussions.
- ◆ Treat each other with respect by listening to each other's thoughts without interjecting words—or body language.
- ◆ Focus on what is important to you and what you need, rather than on an argument for the sake of arguing. Look for mutual gains, not just for yourself.
- ◆ Speak again only after others who want to have done so.
- ◆ If your question or comment has already been said, don't say it again unless you need further clarification or unless you want the group to know that more than one person shares a point of view.
- ◆ Separate the people from the problem: be hard on the problem and easy on the people.
 - Use "I" statements: speak for yourself and not others.
- ◆ Give others a chance to finish their statements before asking or interjecting something new.
- ◆ Hold side conversations at breaks...or in the hall.
- ◆ Keep your focus in the room. Put your cell phones and other devices into silent or vibrate mode and look at them only if you are expecting an emergency.
- ◆ Between meetings, treat this process and discussions as private and do not engage in discussions, online or in person, which might be construed as divisive by others. Instead, look for opportunities to build trust by developing and maintaining a tone that supports mutual resolution of difficult issues.
- ◆ Have tough discussions when a mediator/facilitator is available to help them be most productive.