Willamette Action Team for Ecosystem Restoration (WATER)
Research, Monitoring and Evaluation (RM&E)
July 20, 2017

http://www.nwdwc.usace.army.mil/tmt/documents/FPOM/2010/Willamette_Coordination/Willamette%20RME/RME.html

FINAL Facilitator's Summary

ACTION	BY WHOM?	BY WHEN?
Arrange a meeting with BPA, RM&E team, Managers, and project staff (consider using 7/27 RM&E Team meeting date)	DS Consulting	ASAP
Prepare draft/refill curves for Option 1 operation	Mary Karen	ASAP
Share the information regarding consensus recommendation of Option 1 with managers to see if it is feasible for FY17.	Rich/Fenton	ASAP

Participants in the room: Leslie Bach (NPCC), Stephanie Burchfield (NMFS), Diana Dishman (NMFS), Yamen Hoque (USACE), Mike Hudson (USFWS), Fenton Khan (USACE), Rich Piaskowski (USACE), Christine Peterson (BPA), Ida Royer (Corps), Mary Karen Scullion (USACE), Greg Taylor (USACE), Chris Walker (USACE);

Participants on the phone: Tom Friesen (ODFW), Bernadette Graham Hudson (ODFW), Chuck Peven (BPA Contractor), Lawrence Schwabe (CTGR);

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

Welcome and Introductions
Emily Stranz, DS Consulting Facilitator, welcomed the group with a round of introductions. Emily noted the purpose of the meeting: to review and refine alternative operations for improving downstream fish passage at Lookout Point and Dexter dams and provide any revisions for management consideration.

Review and Discussion of Lookout Point Deep Drawdown Operation Status
The group reviewed the status of the proposed deep drawdown operation at Lookout Point (LOP). Rich reported that it was his understanding from Kevin Brice (USACE Deputy District Engineer for Project Management) that, due to several constraints, it was not feasible to accomplish the operation this fall, but instead would be pursued in fall 2018. He explained the constraints as follows:

1. There is a question regarding the Corps' authority to operate the reservoir elevation below the power pool (depth and duration) during certain months of the year.
2. There are concerns with impacts to other Corps missions, specifically hydropower production, and the associated financial impacts for BPA if generation is reduced during the operation. .
3. There are unresolved questions on the NEPA compliance, specifically whether an Environmental Assessment (EA) is sufficient documentation for this operation or if an EIS will be needed, and a discussion about BPA becoming a cooperating agency on the EA.

Rich and Fenton explained these issues are currently being considered by managers and legal counsel at the Corps and BPA. They requested the group discuss alternative draw down operations which might

reduce/avoid the three issues noted, and send those forward for managers to consider while they are working on the issues.

RM&E Team members sought to better understand the rationale for not proceeding with the proposed deep drawdown operation. There were questions as to why these concerns had not been raised earlier, as the process started several months ago and the EA drafted in August 2016 pointed to the impact on the power pool and generation. Additionally, it was noted that NEPA does not consider impacts to power and if the environmental impact has not changed what is the reason to move from an EA to an EIS?

It was noted that a meeting between the attorneys for the Corps and BPA to discuss the legal authority is scheduled for September 6, 2017.

Stephanie noted that NMFS has not accepted the decision that the operation will not go forward this fall and that the RM&E Team needs to fully understand the alternative included in the EA to assess whether there are changes that can be made to allow the operation to move forward this year.

Fenton noted that there were four alternatives explored in the EA:

1. A "baseline" alternative;
2. Deep drawdown in the fall;
3. Free ungated spill in the spring;
4. Delayed refill in the spring; and,
5. Minimum conservation pool year-round.

He continued that the RM&E team prioritized the fall deep drawdown operation for FY17 as it was likely a good option for fish passage and was thought to be easier to implement based on typical dam operations. Stephanie added that NMFS had pushed to see evaluation of all the passage alternatives identified in the MFW RM&E plan move forward concurrently, however, it did not pan out, so evaluating operations was pursued as something that could be initiated right away. Fenton explained that the drawdown was planned to begin in August to achieve the desired elevation of 14 feet above the RO by November. Although the fish study would only be conducted for a few weeks in November, power production would be impacted beginning in October when the reservoir would be drafted below the power pool and remain potentially through December or January depending on weather. Financial impact via loss of power generation revenue for BPA was noted (estimated between $2-4 million).

Mary Karen thought it might be possible to address the concerns about power production and implement the operation this fall. She suggested a facilitated conversation with the BPA analyst who conducted the cost analysis to make sure that the assumptions are accurate and for the region to better understand BPA's calculations (which included an additional loss of $2 million of replacement power in addition to the $2 million cost of foregone generation). It was suggested that this meeting include RM&E and Steering Team members so that everyone is on the same page. Following this meeting, it was requested that BPA run a HYDsim analysis on the options outlined below. Rich noted that Emily should talk with Ian about scheduling this meeting since technical representatives of the Corps were not able to commit to this. Emily then clarified for the group that she would discuss the possibility of a meeting with Ian.

→ **ACTION:** DS Consulting will help to coordinate a meeting for the region to understand the assumptions that BPA is using and how to shift the operation to lessen the impact to BPA. Following this meeting, it was requested that BPA run a HYDsim analysis on the options outlined below.

Generating Options for Management to Consider Moving Forward

The group explored whether it would be possible to pursue a technical solution that would address the concerns regarding authorization and power generation, and allow the operation to proceed this fall. They agreed to brainstorm options for the Managers and Attorneys to consider at the September 6th meeting.

The group considered the factors that would need to be in place for the proposed operation to proceed this fall, assuming there is authority to do so:

1. The LOP reservoir would have to be at minimum conservation pool by October 15 in order to get down to elevation 750ft by November 1 to allow for a passage study during peak passage; and,
2. The environmental documentation must be finalized to implement the operation, which means that BPA must determine whether it needs to be a cooperating agency, and the public comment period would need to be complete.

It was noted that two weeks in the power pool has happened in the past with BPA coordination. Corps. legal counsel is currently reviewing this. Mary Karen noted that there are multi-week power outages already scheduled for the fall that the deep drawdown operation could work within those outages to further limit the financial impact. Additionally, she thought that the pool can be refilled faster than the 5ft/day that was outlined in the EA.

The group brainstormed two options for managers to consider given the concerns raised regarding the original alternative in the EA. The first option is a revised version of the original deep drawdown alternative (as revised in the Middle Fork RM&E Plan) designed to minimize mission impacts and authority concerns while still maintaining key features of the operation. The second option is a further revised version of the first option that changes target drawdown elevations, to be proposed if the first option is unable to move forward in FY17. Both options include the following study objectives:

- Evaluate juvenile Chinook route distribution and survival through turbine and RO.
- Evaluate juvenile Chinook passage efficiency through turbine and RO.
- Evaluate juvenile Chinook passage and survival through turbine and spill at Dexter.

The RM&E Team agreed with consensus to recommend Option 1, which was designed to lessen the impact to power generation, while allowing for a rigorous study of fish passage. They worked together to develop Option 2, however, not all RM&E Team member agencies supported submitting Option 2 for manager consideration.

Option 1 (Supported by all RM&E Team members to forward for management consideration)

1. Begin drafting 5ft/day on October 1;
2. At this rate, the power pool will be lost by October 15. Up to this point in the operation, the intent would be to maximize generation and spill the remaining at Dexter.
3. Continue drafting to get the LOP reservoir to 750ft by November 1. The fish passage study would take place November 1 through 15. At this point and through the rest of the operation, the intent would be to prioritize spill at Dexter to complement passage through LOP.
4. Begin refilling to the power pool on November 16. The time it takes to refill is weather dependent, however, and is estimated to take between 15 and 30 days. Refill can take place faster than 5ft/day.
5. This operation was expected to result in a 6 week loss of power production.

Other considerations:

- A waiver will be needed to exceed BiOp outflow requirements which call for a maximum 3.5 kcfs outflow from September 1 through 30, when possible.

- Required unit outages could be scheduled between October 15th and return to power pool elevation to lessen the impact to generation.
- The operation should be evaluated using ResSIM.

Option 2 (Not supported by all RM&E Team members to forward for management consideration)

1. Begin drafting 5ft/day on October 11;
2. At this rate, the power pool will be lost by October 22. Up to this point in the operation, the intent would be to maximize generation and spill the remaining at Dexter.
3. Continue drafting to get the LOP reservoir to 780ft by November 1. The fish passage study would take place November 1 through 15. At this point and through the rest of the operation, the intent would be to prioritize spill at Dexter to complement passage through LOP.
4. Begin refilling to the power pool on November 16. The time it takes to refill is weather dependent, however, and is estimated to take between 8 and 15 days). Refill can take place faster than 5ft/day.
5. Operate RO to maximize flow during peak passage times of day.
6. This operation was expected to result in a 4 week loss of power production.
7. All other considerations and fish study objectives remain the same as Option 1.

The group discussed some of the "cons" of Option 2, noting that there would still be 44ft of head above outlets and the surface area/length of the reservoir is not reduced as much, limiting the ability to get at the study objectives in a meaningful way. Emily asked the RM&E team members to share their agency perspective on Option 2:

- **Corps -** The Corps indicated that Option 1 is believed to likely provide better fish passage conditions compared to Option 2. However, Option 2 would provide valuable information for future evaluating any draw down operation for fish passage. They explained that some juvenile Chinook will pass through turbines during any drawdown operation, and that some juvenile Chinook will also pass through the RO when the pool elevation is still high. Data from Cougar and Detroit indicate fish survival is poor in both these situations, and if survival is too low then draw down operations may not be an acceptable downstream fish passage option. Each dam is different, and data on juvenile Chinook route distribution and survival, or passage efficiency is not available for Lookout Point dam. They would like to see an active tagging study move forward in FY17 regardless of whether the drawdown occurs, since results of that study would be relevant to any draw down scenario whether to the conservation pool elevation or deeper.
- **USFWS -** USFWS indicated that they were not in support of Option 2 unless the deep drawdown cannot be implemented at any point. The original deep drawdown is the USFWS preferred approach to the study; their preference is to have the original study go forward this year or, if necessary, next year.
- **NMFS -** NMFS did not support Option 2, noting that they would like to see all of the passage alternatives in the MFW RM&E Plan (i.e., at-dam, head-of-reservoir, and operations) evaluated concurrently to better inform decision making in FY19 and FY21, but at the very least the fall drawdown using Option 1. They did not support a standalone active tagging study under baseline or Option 2 operations. They indicated data were already available from Lookout Point and other projects to understand the effects of a normal drawdown to the conservation pool.
- **NPCC -** NPCC shared that they do not see a reason to collect active tag data if there are no operational changes to monitor, and agreed with NMFS that if data were already available from other projects to understand the effects of a normal draw down to the conservation pool, then further study isn't needed.

- **Grand Ronde -** Grand Ronde shared that alternative operations are priority for them, versus a tag study with the same operation.
- **BPA -** BPA did not provide comment.
- **ODFW** – ODFW did not provide comment.

It was requested that Rich and Fenton share with their managers that the RM&E Team reached consensus on the recommendation of Option 1 as an alternative aimed at lessening the impact to power generation and authority, and mission, and suggest that it is considered for implementation in FY17. It was also requested that Mary Karen update the draft/refill curve to reflect this new operation.

→ **ACTION:** Rich and Fenton will meet with their managers to see if Option 1 is feasible to implement in FY17.
→ **ACTION:** Mary Karen will update the draft/refill curve to reflect Option 1 operation.

With that, Emily thanked the group for their work in brainstorming solutions and the meeting was adjourned.

The next RM&E team meeting is a conference call from 10:00-11:45 on July 27th.

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