COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

December 11, 2015

Facilitator's Summary

Facilitator & Notes: Emily Plummer, DS Consulting

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members.

Chum Operation –Doug Baus, COE-NWD, shared that as of 0700 today, the Bonneville tailwater was at 19ft and due to the increased stream flows, there is too much water in the system to allow the flow to be regulated at this time. He continued that the AAs wanted to check in with the region regarding the previously coordinated chum operation, being as the current flows have exceeded the agreed on elevations (link to operation steps on agenda). Tony Norris, BPA, shared that forecasts suggest that by late next week flows should drop enough for the project to manage the flow. Doug noted that per the coordinated chum operation, once possible, the project would drop back down to a minimum of 13ft, and operate between 13.0-16.5ft (step 6). Paul Wagner, NOAA, reported that the Salmon Managers met and discussed the operation, noting that they do not want to hold a 14ft minimum, considering the uncertainty of January-March flows, until they have more information regarding where the fish are spawning. He said that they would prefer to dial back to 13ft during the day, and increase as necessary in order to rewet the redds at night (between 13-20ft). The WDFW crew plans to survey for redds on Tuesday, December 15, at which point they should have a better idea of where the fish are spawning. Joe Skalicky, USFWS, requested that the WDFW crew gather data on the number of fish utilizing the springs. Tony suggested considering an operation to discourage spawning at higher elevations by releasing more water throughout the day and dropping down at night. Additionally, Doug noted that more details are needed regarding the desired rewetting operation, as this is not outlined in the current operation. Both of these topics were tabled until more information is available, they will be discussed at the December 16th TMT meeting.

- → **ACTION:** Charlie Morrill, WA, will coordinate with the WDFW survey crew to survey for redds and the number of fish using the springs, on Tuesday, December 15th between 10:00-2:00pm. He will bring an update to the December 16th TMT meeting.
- → **ACTION:** BPA will manage flows to get down between 13-14ft tailwater from 10:00-2:00pm on the 15th in order to allow for the WDFW survey.
- → **ACTION:** At their December 15th meeting, FPAC will discuss the desired day and nighttime flow shapes, and come to TMT on the 16th with a recommendation.
- → **ACTION:** At the December 16th meeting, TMT will discuss options for a day/nighttime operation, as well as details for the rewetting operation.

Libby Operations – SOR 2015-01 – Paul Wagner, NOAA, presented on SOR 2015-01, on behalf of NOAA, CRITFC, ID, OR, WA, and USFWS. The SOR requests that the USACE consider further relaxation of the December flood control elevation at Libby, allowing Libby to reach up to 2,426ft. Paul noted that the intent of the SOR is to avoid drafting Libby due to concerns of what could be a dry winter. Joel Fenolio, Seattle-COE, reviewed the current forecast, noting that they are currently operating with a relaxation of up to 2,415.3ft due to the SOI forecast. The precipitation that is used in the December forecast though is currently at 120% of the average. He continued that the snowpack is the main driver for water supply, and they have seen good snow building events, thus the 2,415.3 ft relaxation looks to be a prudent operation until more information is available. Joel noted that they will continue to track forecasts and reassess the relaxation the week of 12/21.

TMT members were polled to see if there were any objections to SOR 2015-01:

NOAA: no objection
OR: no objection
WA: no objection
Umatilla: no objection
BOR: no objection
USFWS: no objection
ID: no objection
MT: no objection
BPA: no objection, will support the Corps
USACE: no objection
Colville: was not present at the meeting, however, signaled 'no objection' via email to USACE.

Doug responded that USACE plans on relaxing the Libby end of December flood control elevation up to 2415.3 feet. The USACE will revisit this operation the week of 12/21; an update will be provided to TMT at the 12/23 meeting.

→ **ACTION:** Operate LIB with a flood control relaxation up to 2,415ft until more information is available the week of 12/21. Reassess the operation the week of 12/21 and report back to TMT at the 12/23 TMT meeting.

The next TMT meeting will be a face to face meeting on December 16th at 9:00am.

Columbia River Regional Forum
Technical Management Team Meeting
December 11, 2015

Minutes: Pat Vivian

1. Introduction

Representatives of the COE, BPA, NOAA, Montana, Idaho, USFWS, BOR, Washington, Umatilla Tribe and others participated in today's TMT meeting chaired by Doug Baus, COE, and facilitated by Emily Plummer, DS Consulting. This summary is an official record of the conversation, not a verbatim transcript.

2. Chum Operation

The main purpose of today's TMT meeting was to plan for the chum spawning operation when high flows abate. The Bonneville Dam tailwater elevation was 19 ft as of 7 am today. TMT's direction is wanted once control of the river can be regained.

The chum operation, which began at 6 am November 7, specifies how the BON tailwater should be managed when flows increase. If flows exceed the ability to maintain the desired 11.5-12.5 ft tailwater elevation during all hours, the elevation may go up to 13 ft at any time, returning to the 11.5-12.5 ft range as soon as possible. The next step is to raise the tailwater up to 16.5 ft during evening hours (5 pm-6 am). If necessary to increase project outflow beyond that, the tailwater may be operated up to 18.5 feet during evening hours. The final step of the chum operation calls for a tailwater elevation range of 13-16.5 ft during daytime hours (6 am-5 pm) and up to the maximum elevation during evening hours.

Since Thursday, December 10, flows have exceeded the Action Agencies' ability to maintain the chum operation as defined in the final step of the chum plan. The COE asked TMT to consider whether any changes will be needed when flows become manageable again.

The current situation is the result of streamflows over which the Action Agencies have no control, such as heavy inflows from the Willamette, Tony Norris, BPA, explained. The tailwater will probably remain at a high elevation into late next week, and any additional rain will prolong it. Incremental flows between John Day and Bonneville recently peaked at around 70 kcfs.

Norris asked whether the 13 ft minimum daytime elevation specified in the final step really protects redds. A 14 ft daytime elevation would be desirable because the weather forecast is uncertain, Paul Wagner, NOAA, replied. The nighttime elevation range could go higher. But it would be unwise to commit to a 14 ft daytime elevation without knowing the extent of chum spawning above 13 ft.

Discussion turned to dropping the BON tailwater elevation on December 15 to a range of 13-14 ft with a target of 13.5 ft so crews can survey chum redd locations. In past years when the BON tailwater got into the 14 ft range, chum had a high fidelity to another site adjacent to Ives Island, Joe Skalicky, USFWS, noted. That area should be part of the survey, which will take place from 10 am-2 pm December 15. It will take much planning to get the tailwater elevation down to that level for those few hours, Norris said. Moving enough water will require high nighttime elevations.

Baus asked whether this means the Salmon Managers are setting 13 ft as a minimum protection level, or will the chum daytime operation continue at the 11.5-13.0ft range? He wondered whether the Salmon Managers are considering adding a step to specify elevations during nighttime hours. Wagner suggested that TMT revisit this question at its next meeting December 16; Charles Morrill, Washington, agreed.

In the meantime, Scott Bettin, BPA, suggested "flipping" the chum operation by passing higher flows during daytime hours and raising the tailwater elevation up to 19 ft, with lower elevations at night. This would accomplish a dual objective: move more water downstream and discourage daytime spawning at unsustainable elevations. Wagner said NOAA supports this as an interim plan until TMT meets again on December 16. Erick Van Dyke, Oregon, asked whether the goal is to refine the current chum protocol for handling unmanageable flows. The COE is open to TMT's direction on the chum operation, Baus replied.

On December 15, FPAC will address the question of whether to pass higher flows during daylight hours to discourage spawning at higher elevations. There will be a special operation from 10 am-2 pm December 15 to maintain a 13-14 ft elevation range in the BON tailwater, with a target of 13.5 ft to accommodate the redd survey. TMT will revisit the chum spawning operation at its next meeting December 16.

3. SOR Re: Libby Operations

Wagner introduced SOR 2015-01, Modification of 2015 Libby End of December Elevation, linked to today's agenda. The SOR, supported by the Salmon Managers, was drafted before the latest forecast was released. It asks the Action Agencies to limit the draft of Libby Dam during December, with a goal of increasing the probability of meeting the April 10 flood control target.

Based on the December forecast, the SOR proposes the Corps consider targeting a Libby elevation up to 2426 ft. This is in accordance with the sliding scale forecast the COE developed in 2004, which allows an end of December elevation of up to 2426 ft.

According to the Climate Prediction Center, this winter is likely to be warmer and drier than usual like last year, Wagner said. Last year, snowpack was at a lower elevation than usual, leading to early runoff. The Salmon Managers want to avoid drafting Libby heavily at the end of December until more water supply data are available.

In February, the COE RCC will consider making a flood control deviation request until the forecast becomes more definite, Joel Fenolio said. The COE has relaxed the end of December elevation to 2415.3 ft based on the current forecast, which considers the SOI index to ocean conditions. Precipitation in the Columbia basin was approximately 120 percent for October-November. According to median ESP traces, the volume forecast this year is 6.5 maf, which reflects current snowpack. Given the SOI index and amount of snowpack, the relaxed flood control target for Libby is 2415 ft elevation. Libby forebay is at elevation 2429 ft. During the week of December 21, the COE RCC will revisit the forecast and consider whether to make a flood control deviation request.

Baus polled the Salmon Managers on whether they object to the planned operation for implementing the SOR, i.e. would they support a Libby end of December elevation of up to 2426 ft to the extent that flood control allows. **NOAA, USFWS, Oregon, Idaho, Washington,**

Montana and the **Umatilla Tribe** had no objections to SOR implementation. Baus reported the **Colville Tribe**, not represented in today's meeting, emailed support of the SOR.

With consensus, the COE will implement the SOR as requested, deciding later in December whether to pursue a formal relaxation of normal flood control procedures. TMT will follow up on implementation of the SOR in a December 23 conference call.

3. Next TMT Meeting

TMT will meet next in person December 16 and in a conference call December 23.

Name	***Affiliation***
Paul Wagner	NOAA
Doug Baus	COE
Tony Norris	BPA
Scott Bettin	BPA
Jim Litchfield	Montana
Steve XX	COE
Shane Scott	PPC
Julie Ammann	COE
Phone:	
Russ Kiefer	Idaho
Joe Skalicky	USFWS
Mary Mellema	BOR
Charles Morrill	Washington
Karl Kanbergs	COE
Michael Bryant	CBB
Erick Van Dyke	Oregon
Joel Fenolio	COE
Tom Lorz	Umatilla