

**COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM**  
June 5, 2017  
Facilitator's Summary  
Facilitator: Emily Stranz; Support: Charles Wiggins, DS Consulting

*The following Facilitator's Summary is intended to capture basic discussion, decisions and actions, as well as 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. Official minutes can be found on the TMT website: <http://www.nwd-wc.usace.army.mil/tmt/agendas/2017/>*

### **Little Goose Dam Operation**

Lisa Wright, Corps, reported on the effects of an operation to attempt to increase adult Chinook passage at Little Goose Dam. The TMT coordinated the operation at its June 2<sup>nd</sup> meeting, to be implemented on June 3-5<sup>th</sup> and revisited at TMT on June 5<sup>th</sup>. The operation called for implementing spill at 40% from 4AM to 10AM to encourage adult passage. This operation would result in filling above the minimum operating pool (MOP) range of 633 to 634 feet. To alleviate the impact to MOP and downstream juvenile fish passage, the project would increase spill to pass inflow from 10AM to 4PM, then increase spill to draft the pool back to MOP by 4AM the next morning.

On June 2<sup>nd</sup>, before the operation was implemented, 762 adult Chinook passed Little Goose Dam. The counts were 793 for June 3<sup>rd</sup>, 578 for June 4<sup>th</sup>. The maximum forebay elevation on Saturday June 3, was 634.7 feet and on Sunday June 4 was 634.5 feet. The current water supply forecast is showing a peak at 182 kcfs on Tuesday, then receding for the next 7-10 days to 160 kcfs, then to the low 130s on the 14<sup>th</sup>.

Anne Setter, Corps, reported that scheduled screen cleaning operations began at Little Goose at 10AM this morning, after the 40% spill operation concluded. Screen cleaning will continue and will cause temporary unit outages potentially through Wednesday, June 7<sup>th</sup>.

### **Discussion**

Russ Kiefer, Idaho, reported out on FPAC conversations earlier in the morning. He expressed appreciation for the coordination and implementation of the operation by the Corps of Engineers, however, noted that the response desired was not seen in the passage data.

FPAC considered shifting to a 30% spill operation after screen cleaning is complete. They noted the importance of continuing with screen cleaning and did not want to interrupt that process. Ann noted that the operation could continue alongside the screen cleaning if time is of the essence.

The group discussed a number of options, including delaying the start of the revised operation (30% spill) until screen cleaning is complete and the peak flow has passed; moving the retained water out sooner than 4PM; and not returning the pool to MOP to require less water to be moved out.

### **Consensus Agreement**

After discussion, there was consensus at TMT to implement the following operation starting Tuesday, June 6<sup>th</sup>, with a check in on Wednesday, June 7<sup>th</sup>.

- 4AM to 10AM -operate with 30% spill;
- 10AM to 4PM – pass inflow;
- 4PM to 4AM – draft to MOP while remaining under 130% TDG; if unable to draft to MOP while remaining under 130% TDG, store excess water.

- **ACTION:** The action agencies could implement the operation. The Corps will prepare a written memo outlining what changes were noticed from the previous operation and will post it on the TMT website.

Salmon Managers present shared their input on the operation: NOAA, ID, WA, USFWS, MT, Nez Perce, Warm Springs and Umatilla supported the operation. It was noted that TDG needs to be managed and that due to the complexity of the situation, it will be difficult to determine the impact of the operation. OR noted that they would not elevate this issue, however, does not want to see the operation continue in the long-term and that there were too many moving pieces to obtain a clear answer of effectiveness; OR emphasized that this operation was being considered only because of current high water conditions.

**The next TMT meeting is a face to face on June 7<sup>th</sup> at 9:00.**

**Columbia River Regional Forum**  
**TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES**

**June 5, 2017**

Minutes: Pat Vivian

**1. Introduction**

Representatives of Washington, Montana, Nez Perce Tribe, Warm Springs Tribe, BPA USFWS, NOAA, the COE, Idaho, Yakama Nation, Oregon and others participated in today's TMT conference call chaired by Lisa Wright, COE, and facilitated by Emily Plummer, DS Consulting.

**2. Little Goose Dam Operations**

TMT held an unscheduled meeting today to review the results of a 40% spill operation coordinated on Friday, June 2, to support adult passage at Little Goose Dam. A disparity of around 6,000 fish between Little Goose and Lower Monumental led FPAC to propose this operation curtailing spill to 40% of total project flow from 4 am to 10 am for three days, June 3-5. High spill at Little Goose is known to cause eddies that block adults from entering the fish ladder.

Lisa Wright presented relevant information linked to today's agenda:

**2a. Adult Passage Data.** Adult spring Chinook counts on June 2, prior to the operation, were 762 fish at Little Goose. On June 3, the first day the 40% spill operation went into effect, adult spring chinook passage went up to 793, but on June 4 it dropped to 578. It appears that fish didn't respond to the operation as intended.

**2b. Hourly Data.** These data show that the Action Agencies are implementing the operation as coordinated at TMT.

**2c. Percent Spill.** On June 3 Little Goose spilled 40% of total project outflow from 4 to 10 am. From 10 am to 4 pm, the project passed inflows, and from 4 pm June 3 to 4 am June 4, it drafted down to the MOP range.

Impacts on MOP operations were as follows. On June 3, the forebay operating range was 633.04 to 634.68 ft, meaning the forebay exceeded MOP by 0.68 ft for part of the day in order to maintain the operation. On June 4, the LGS forebay exceeded MOP by 0.5 ft for a portion of the day in order to maintain the operation. Current forebay elevation is 634.03 ft. Today is the last day of the operation as TMT coordinated it on June 2.

**2d. Forecasted Inflows.** A peak inflow of 182 kcfs is forecasted for tomorrow, then a slow recession over the next 7-10 days to 160 kcfs inflow on June 11 and a little over 130 kcfs on June 14.

**2e. LGS Proposed Operation.** The last link on today's meeting agenda is a summary of the 40% spill operation as originally presented at the TMT meeting on June 2.

This morning FPAC concluded from the adult spring Chinook data that the operation didn't affect adult passage as intended, Russ Kiefer, Idaho, reported. So the Salmon Managers devised a proposal for a similar operation: 30% spill for the same 6-hour span in the morning, to begin later this week or over the weekend after screen cleaning is finished. The reason for waiting is that the Salmon Managers are concerned about dramatic flow and pool elevation changes if the extra volume stored with two units down during screen cleaning has to be pushed out at night.

Project staff postponed the start of screen cleaning until 10 am, as requested on the June 2 TMT call, Ann Setter, COE Walla Walla, reported. They also agreed to start screen cleaning at 10 am for the rest of the job, which should be finished on June 7. This clears the way for implementing a 30% spill operation as early as tomorrow and assessing its effectiveness. Kiefer wondered whether it would make sense to wait until screen cleaning is done before starting, but Setter advocated starting immediately due to the ongoing delay of fish and to find out whether a 30% spill operation is effective. The debris problem is turning out to be less serious than initially thought, with small amounts are collecting in the juvenile bypass system.

Scott Bettin, BPA, asked whether it would be acceptable to start drafting toward MOP at noon instead of at 4 pm to reduce the need for heavy spill at night. Kiefer said Idaho would not object to that, but it hasn't been discussed at FPAC. He noted that not all FPAC members reached consensus on the 30% spill idea this morning, so they should weigh in now:

- **NOAA** – Supports moving forward with the 30% spill operation as long as there are no negative TDG effects (i.e., above 130%). This is worth trying for a few days to see if it'll get some of the 8,000 missing adults to move upriver.
- **Oregon** – Expressed concern about setting precedent in an unmanaged flow situation; is also concerned that this operation has not been subjected to long term evaluation. With so many moving parts, it will be difficult to pin down exactly what is responsible for the results. Oregon shares others' interest in taking any action possible to support adult passage, and will not object to this operation or elevate the issue.

However, Oregon doesn't believe it will be possible to document that this operation is the cause of any improvement.

- **Idaho** – Supports the 30% spill operation but wants to wait until screen cleaning is done before implementing it.
- **Washington** – Agrees with the views articulated by NOAA and Idaho. Has concerns about setting a precedent but otherwise doesn't object.
- **USFWS** – Supports the proposed 30% spill, but not the request to start drafting toward MOP at noon, for two reasons. One, passage timing data indicate that a lot of fish move between the hours of noon and 4 pm, so that's not a good time to increase spill. Two, changing the hours adds another variable, which will make it more difficult to analyze effectiveness. More discussion of the MOP proposal is needed.
- **Montana** – Supports the 30% spill proposal; willing to try anything that has a reasonable chance of resolving this passage discrepancy.
- **Nez Perce** – Supports the proposal but shares USFWS concern with drafting toward MOP starting at noon.
- **Warm Springs** – Supports the proposal.
- **Umatilla Tribe** (CRITFC) – Supports the proposal, but suggests holding off until June 6 or 7 when screen cleaning is finished. Doesn't object to starting today, but given the magnitude of inflows it might be futile.

Discussion turned to BPA's request to start drafting toward MOP at noon instead of 4 pm. The purpose is to minimize TDG impacts. Bettin asked the Salmon Managers which is more important, returning to MOP or keeping TDG levels under control?

By returning to MOP at night in the first 3 days of the operation, in all probability juveniles were not harmed, Kiefer observed. Going forward, Idaho didn't have a strong preference, but recommended increasing spill at noon, not to exceed 130% TDG in the tailrace.

Tom Lorz, Umatilla (CRITFC), proposed drafting to MOP+1 ft, an approach also supported by Washington. Dave Swank, USFWS, expressed concern about confounding adults by bumping the spill percentage up too soon in the day. For that reason, USFWS supported delaying the operation until screen cleaning is finished on June 7 or 8. Trevor Conder, NOAA, suggested delaying the spill increase from noon to 2 pm.

Charles Morrill, Washington, asked whether there was any concern about bioenergetic effects on fish. Like USFWS and NOAA, Washington advocated waiting until after screen cleaning was finished to start the next spill operation. Kiefer said Idaho's perspective is the run has already been delayed, and the greater the delay, the lower conversion rates between projects will be. This has been such a persistent pattern that further delay is to be avoided if possible. Idaho supports taking action now to move adults upstream. That said, accelerating adult passage by a few days isn't worth creating adverse conditions for juveniles.

So Idaho made a counter proposal: store inflows above MOP when TDG levels hit 130% below the project, waiting until 4 pm to start drafting the project down to MOP. NOAA and Washington supported this approach.

Wright clarified that the spill cap for 130% TDG is established on a daily time step, not hourly. The Action Agencies would commit to managing to a 130% TDG maximum if daily monitoring of that was acceptable to the Salmon Managers, which it was. BPA and the COE will work together to flesh out the details.

Wright summarized the operation moving forward as follows:

Starting June 6, from 4 am to 10 am, Little Goose will spill 30% of total outflow. From 10 am to 4 pm, the project will pass inflow, and from 4 pm to 4 am the following day, it will draft toward MOP to the extent possible without exceeding the daily spill cap established for 130% TDG. If that occurs, any additional water will be stored above MOP. Screen cleaning will take place from 10 am to 5 pm on June 7 and 8, with any remaining work to be finished on June 9.

The Salmon Managers (Idaho, NOAA, USFWS, Washington, the Warm Springs Tribe, Montana, Nez Perce Tribe, Umatilla Tribe (CRITFC), and Oregon with caveats previously expressed) all agreed to this operation.

Oregon asked the Action Agencies to document this operation in writing, which the COE will post to the TMT agenda for the next meeting on June 7.

### **3. Next TMT Meeting**

TMT will meet in person on June 7.

<b>Name</b>	<b>Affiliation</b>
Charles Morrill	Washington
Jim Litchfield	Montana
Jay Hesse	Nez Perce
Tony Norris	BPA

Jen Graham	Warm Springs
Scott Bettin	BPA
Dave Swank	USFWS
Trevor Conder	NOAA
Julie Ammann	COE
Lisa Wright	COE
Russ Kiefer	Idaho
Ann Setter	COE Walla Walla
Doug Baus	COE
Tom Iverson	Yakama
Dan Turner	COE
Laura Hamilton	COE
Aaron Marshall	COE
Dave Benner	FPC
Brandon Chockley	FPC
Erin Cooper	FPC
Charles Wiggins	DSC
Bill Hevlin	NOAA
Erick Van Dyke	Oregon