

# **COLUMBIA RIVER REGIONAL FORUM**

## **TECHNICAL MANAGEMENT TEAM**

### **CONFERENCE CALL**

July 19, 2006 Meeting

#### **FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS**

Facilitator: Robin Harkless

Notes: Erin Halton

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.

#### **Lower Granite Navigation Problem**

Cathy Hlebechuk, COE, reported that the tailwater at Lower Granite was dropping below the minimum elevation 633' needed to maintain a 14' minimum depth for safe barge passage. It was noted that this is a health and safety concern. The COE recommended making a change in operations to MOP +1 at Little Goose in order to have elevation clearance needed (i.e. for barges.) The COE planned to refill Little Goose beginning on July 24<sup>th</sup>, concurrent with double testing at the project, and continue with MOP+1 at Little Goose until the Lower Granite tail water is consistently above 663-663.5'. A question was asked about whether there were alternative operations/means of addressing this recurring problem, which BPA responded that there was not. TMT did not object to this operation.

#### **Libby / Hungry Horse Operations**

UPDATE: A TMT subgroup sent out a memo from their meeting on Friday, July 14<sup>th</sup> for discussion during an IT call held July 18. The memo recommended maintaining 15 kcfs flows at Libby through August 31. Similarly, a flat flow of 3 kcfs was recommended for Hungry Horse which was believed would draft the project 10' by August 31. This recommended operation received no objection from IT, and was subsequently sent to various federal legal counsel for review and submission to the court process. The operation would start as early as July 24<sup>th</sup>. The plan for outflow, as clarified by Hlebechuk, will be 3 units (at approximately 14 kcfs) until the head goes down, at which time flows will be increased to 15 kcfs.

Russ Kiefer, IDFG, expressed concern that an operation plan for September was not addressed in the memo – and recalled that there was a proposal from Montana during the 7/12 TMT meeting to implement a gradual, weekly ramp down in September to bring flows at Libby down from 15 to 9 kcfs by September 30, which Idaho supported as a caveat to supporting the proposed August operations. While general agreement for this proposed operation was expressed, September operations will be further discussed and recommended during the July 26 TMT meeting since Montana was not present for today's TMT call.

### **Dworshak Operations**

Cathy Hlebechuk, COE, shared a graph of projected volumes at Dworshak to reach 1535' by the end of September, showing that volume flexibility may become an issue. Temperatures were expected to be very high over the weekend. Ice Harbor temperatures were continuing to rise, and were currently between 72-73.5 degrees. Temperatures at the Lower Granite tailwater were just below 68 degrees. Little Goose was at 72 degrees, and Anatone was also at 72 degrees.

The COE ran scenarios of operations at Dworshak to look at flow and temperatures, which projected that spilling an additional 4.5 kcfs through the RO's (which would put temperatures around 42 degrees and TDG at 109%) would bring temperatures at Lower Granite down to below 68 degrees. The current operation scenario showed temperatures at Lower Granite exceeding 68 degrees. The COE recommended operating Dworshak at full powerhouse plus 4.5 kcfs through the RO's, and continuing to closely monitor TDG and the hatchery.

A question was raised about the impact of going to 14.1 kcfs: How much volume can be afforded without forcing flows below 10 kcfs between now and August 31? Hlebechuk, using a 50% forecast, responded that the project could hold at 14.1 kcfs for 14 days, and then maintain 10 kcfs through August. NOAA offered that it is critical to get the temperatures down now and that doing so would likely allow the system to maintain temperatures with less flow in late August.

With no objections raised from TMT, the COE planned to operate the project as recommended above. A check-in TMT call will take place Monday, July 24, at 9 a.m.. TMT will check in again at the 7/26 TMT meeting.

### **Spill Patterns for Lower Granite and Little Goose**

NOAA made a request to move from a flat to a bulk spill pattern to support better egress conditions. FPAC discussed this and did not object to the proposed change. It was noted that this would be a shaping change, rather than a volume change. With respect to the Spill Implementation Plan submitted to the court, this change will be reported before possible implementation on July 21.

### **Next Meeting, July 26, 9am-noon**

A face to face TMT meeting is scheduled for Wednesday, July 26. Please regularly check the TMT web page for agendas and any scheduling.

## **Technical Management Team Conference Call Notes**

July 19, 2006

### ***1. Greetings and Introductions.***

Today's Technical Management Team conference call was chaired by Cathy Hlebechuk and facilitated by Robin Harkless. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Hlebechuk at 503-808-3942.

## ***2. Navigation Problems Below Lower Granite.***

Hlebechuk said there is a navigation problem below Lower Granite. We're unable to maintain the 15-foot navigation channel like we're supposed to, she said – the pool elevation needs to be at least 633 to maintain that. We need to change the operating range of the project to MOP+1 to ensure adequate depth over the downstream sill of the navigation lock.

We need to have at least 15 feet of depth over the sill, said Steve Voss; the reason we're having trouble maintaining that depth is because of the fact that this is the first year in a long time we've actually been operating at MOP, rather than MOP+1. If the tailwater elevation falls below 633, as it frequently has this summer, there is no clearance over the sill, and tow-boats may not be able to enter – if they bottom out on the concrete, then you've got a big problem. The problems occur when flows are low, Hlebechuk added.

Is there a change in operations that could prevent this problem from happening? Rick Kruger asked. Could you ramp up and down more slowly, for example, to avoid a depression in flows? I don't think that would make much difference, said Robyn MacKay – we need to fill the pool by about six inches to prevent this from happening. As we go forward through the season, Snake River flows will be dropping even more, Paul Wagner noted – it sounds as though this is a health and safety issue. Hlebechuk noted that Little Goose pool will be filling over a two-day period to accommodate double testing at Lower Monumental next week. How does that affect flows with respect to this issue? Kruger asked. Because the Lower Monumental powerhouse will be shut down, and we'll need to fill Little Goose pool to reduce flows at Lower Monumental while units are out of service during the double testing – it would be an opportunity to fill Little Goose pool at the same time, Hlebechuk replied.

Six inches at Lower Granite is a lot of water, said Kruger -- I still don't understand why ramping up and down more slowly wouldn't help alleviate these problems. Look at the July graph attached to this item on today's agenda, Hlebechuk suggested. Starting on July 2 and going through July 5, you'll see a fairly flat line for Lower Granite discharge. The yellow line is Little Goose forebay, the red line is Lower Granite forebay. You can see even when Lower Granite flows are stable, the problem persists – the real problem is Little Goose operations. In other words, even when Lower Granite discharge is stable, we still have a problem.

It sounds as though we need to reduce the sill height in the Lower Granite navigation lock, Kruger suggested. That would be a major undertaking, Voss said. I've inspected similar facilities, and it's not going to be possible to do that, said Tony Norris.

We'll continue to monitor the tailwater, Hlebechuk said. We will adjust the Little Goose elevation lower if it is possible to do so and maintain tailwater above 633, she added.

### ***3. Libby and Hungry Horse Summer Operations.***

Most of you have seen the memo from the TMT technical subgroup, which was distributed by email, Hlebechuk said. At yesterday's IT meeting, there was no objection to the compromise operation NMFS had proposed. The operation is now being vetted through the legal process; if there is no further objection, the soonest it could be implemented is this Monday. If it is implemented, the Corps would plan to run three units at full load at Libby, yielding a discharge of about 14 Kcfs initially, increasing to about 15 Kcfs as head at the project is reduced. At Hungry Horse, we will be ramping down to the flat flow rate that will evacuate the agreed-upon volume – about 3 Kcfs, Tony Norris added.

In response to a question, MacKay noted that while there is general agreement that flows from Libby and Hungry Horse will be gradually ramped down in September, there is no specific agreement as to how, or at what rate, that will occur. Russ Kiefer said his understanding was that Jim Litchfield had specifically proposed that Libby outflow be gradually ramped down, in weekly increments, to 9 Kcfs. That was not specifically discussed at the TMT subgroup meeting, said MacKay. That's a concern, because I think we agreed, at TMT that this was all a package, and I think September operations need to be included, Kiefer said. Various participants, including David Wills, said they agree with Kiefer's recollection. We agree in principal to what you're saying; we just need to iron out the details, Scott Bettin said.

After a few minutes of discussion, it was agreed to discuss September operations at the Montana projects at next week's TMT meeting.

### ***4. Dworshak Operations.***

Hlebechuk said there is a link on today's TMT agenda includes the most recent CEQUAL-2 runs, showing the volume of flow augmentation water available above 10 Kcfs outflow at Dworshak – one at 30% confidence, one at 50% confidence and one at 70% confidence. At 70% confidence, we're already in the negative, so we need to be prudent in how we use the remaining volume in Dworshak, she said. This is the volume remaining before we achieve elevation 1535 on August 31, Hlebechuk added; the remaining 15 feet, for use in September, has already been set aside.

There isn't a lot of flexibility to operate above 10 Kcfs, Dave Statler observed. Kyle Dittmer noted that air temperatures of up to 107 degrees are expected in the Lewiston area this weekend. Jim Adams reviewed the current water temperature situation at the Lower Snake projects, noting that all of these numbers are available via hot-link from today's agenda on the TMT homepage. The bottom line is that we're at about 67 degrees in the Lower Granite tailwater, Adams said; outflow temperatures at Peck and Anatone are pretty warm right now, about 72 degrees.

Adams said he had discussed the details of the Dworshak operation at yesterday's FPAC meeting, which included several options involving the regulating outlets and flow over the spillway. Our estimate is that spillway flow would produce water in the 60-degree range, which would increase the total outflow temperature at Dworshak to 46 or 47 degrees, he said. After consultation with Mike Schneider, we believe we could increase the flow of 40-degree water from the ROs to about 4.5 Kcfs without violating the TDG standard downstream of Dworshak, Adams said; that would probably be a better option, in terms of cooling the river. According to our modeling, increasing RO flow to 4.5 Kcfs will enable us to keep Lower Granite tailrace temperatures below 68 degrees. If we continue doing what we're doing now, however, we will exceed the 68-degree standard at the Lower Granite tailwater by this weekend. If we increase flows out of the ROs today, that additional cool water will hit Lower Granite tailrace on Sunday, in the middle of the hot spell. In response to a question from Cindy LeFleur, Adams said this will increase Dworshak outflow to 14.1 Kcfs at about 42 degrees F.

Howard Burge of the Fish and Wildlife Service said that, if the Dworshak outflow temperature is decreased to 42 degrees, there may be an impact at Dworshak National Fish Hatchery. We're right at the critical temperature right now, he said – the real question is how long this operation would continue. If it's a week, it shouldn't be a problem; if it continues for a month, that will severely impact fish growth. We may still be able to target a release temperature of closer to 43 degrees by keeping one of the units in overshot mode, if the TMT so desires, Adams said – that would impact the temperature we get in the Lower Granite tailrace only slightly.

If we increase Dworshak outflow now, does that mean we'll have to reduce Dworshak outflow to below full powerhouse capacity between now and August 31, if we're to meet the 1535 target elevation on August 31? Statler asked. If so, given the likely hot weather we'll be seeing later in July and August, we may want to think about that very carefully. According to our modeling, using the 50 percent forecast, we could maintain 14 Kcfs outflow from Dworshak for 14 days, and still release full powerhouse capacity through the end of August, Hlebechuk replied. That sounds a bit optimistic to me, but we can revisit this operation next week, said Statler.

After a few minutes of discussion, it was agreed to increase Dworshak outflow up to the gas cap, or 14.1 Kcfs, whichever comes first, beginning later today. It was agreed to check in on this topic at 9 am Monday.

### **5. Spill Patterns for Lower Granite and Little Goose**

Bern Klatte said Bill Hevlin has requested that the spill patterns at Little Goose and Lower Granite be changed from a flat to a bulk pattern, to provide better fish egress conditions. FPAC discussed this yesterday, said Wagner; people were willing to accept that change going forward. He noted that there has been an ongoing test, beginning June 16, testing the flat vs. bulk spill patterns, and Bill's view was that, based on the results of that test, the bulk spill pattern was providing better conditions for fish. This won't change the volume provided, Klatte added – it only changes how it's delivered. I believe there is a spill pattern for these projects specified in the implementation plan we submitted to the court, Adams observed. We'll check with our legal folks, but it's a pretty minor change, Klatte said. Certainly the plan envisions this kind of in-season management flexibility, Wagner added. Kruger said he supports this change. No TMT objections were raised to this change in operations; it will be implemented as soon as it can be coordinated with the other parties and Corps legal staff, probably by the end of this week.

### **6. Next TMT Meeting Date.**

The next meeting of the Technical Management Team was set for Wednesday, July 26. Meeting summary prepared by Jeff Kuechle, BPA contractor.

### **TMT Conference Call Participants July 19, 2006**

<b>Name</b>	<b>Affiliation</b>
Robin Harkless	Facilitation Team
Rick Kruger	ODFW
Tony Norris	USBR
Robyn MacKay	BPA
Barry Espensen	CBB
Kyle Dittmer	CRITFC
Cindy LeFleur	WDFW
David Wills	USFWS
Paul Wagner	NOAAF

Cathy Hlebechuk	COE
Steve Boss	COE
Howard Burge	USFWS
Dave Benner	FPC
Bern Klatte	COE
Dave Statler	NPT
Russ George	WMCI
Jim Adams	COE
Scott Bettin	BPA