

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

August 15, 2007

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.

Review of Facilitator Notes / Meeting Minutes

The facilitator summary and official meeting minutes from the 7/25 and 8/1 conference calls were finalized. The facilitator notes from the 8/8 conference call were posted to the TMT website and were finalized. The official meeting minutes from the 8/8 conference call were expected to be posted later this or next week.

Action/Next Steps: The COE will post the 8/8 meeting minutes as soon as they are submitted. TMT will look to review/finalize the 8/8 minutes and 8/15 notes and minutes at the face-to-face meeting on 8/22.

Commercial Navigation Issues:

Jim Adams, COE, reported on the implementation of alternate spill patterns at Lower Granite and McNary for safe navigation. A total of six barges passed through McNary over the 8/11-12 weekend and the alternate patterns were reported to have worked well for navigation. Alternate patterns were implemented at Lower Granite twice over the weekend with mixed results varying from slight improvement to no change with respect to navigation. John Piggott, Columbia River Towboat Association, said that the Lower Granite pool appeared to dip just below MOP at times, providing thin barge clearance. Adams clarified that there are different gauge placements at Lower Granite and Little Goose and that the gauges may have caused the data to appear as though the pools dropped below the minimum operating levels. TMT members were referred to a graph linked to the agenda, showing project data for Little Goose and Lower Granite. The Walla Walla District COE planned to investigate this issue further and continue working with the Towboaters to meet their primary interest of keeping the pool levels at or above the minimum operating range for safe navigation. It was noted that at this point, the concern was at a level to warrant further investigation but not a change in operations.

Action/Next Steps: RCC COE will coordinate with its Walla Walla District office to resolve gauge reading issues and will continue to provide ample barge navigation depths. If further action is warranted, discussions will resume through the TMT process and there may be follow up on this item at the 8/22 TMT meeting.

Dworshak Operations Update

Jim Adams, COE, reported on Lower Snake River temperatures: the Lower Granite tailwater was averaging 65.3° F; Dworshak was discharging an average temperature of 45.5-46° F, with one unit in undershot and one in overshot. Adams said that air temperature data for the Lewiston area showed temperatures cooling through the upcoming weekend and into next week. Shaping for potential inflows of 500 cfs, 750 cfs and 1 kcfs were posted as links to the agenda, with each alternative's end of August elevation indicated. Salmon Managers present at the

meeting (USFWS, Idaho and Nez Perce) supported continuing the current operation, and acknowledged the potential to make a slight change later in order to achieve the 1535' elevation target on 8/31. TMT also reviewed thermocline graphs for Dworshak, which showed temperature data tracking slightly warmer than in 2005 and cooler than in 2006.

Action/Next Steps: The COE will continue to operate Dworshak with one unit in overshot and one in undershot. Outflows will be near 7.5 kcfs, and temperatures will be maintained at 45-46^o F degrees as best as possible. This item will be on the agenda for the 8/22 TMT meeting.

Autumn Treaty Fishing – SOR#2007 C3

Kyle Dittmer, CRITFC, shared the request for autumn treaty fishing operations, posted as a link to the TMT agenda: for Bonneville, John Day and Ice Harbor, hold the pools within 1' elevation for August 22-24th, August 28th - 31st, and September 4-8th, with appropriate elevations to be determined by the COE for the first two fisheries. Dittmer noted that specific elevation ranges for the September 4-8th timeframe will be requested through an SOR which will be shared at the September 5 TMT meeting. Jim Adams, COE, said the COE plans to operate the pools according to the 1998 Ted Strong (CRITFC) agreement with Colonel Mogren (NWP). He noted that discussions are ongoing amongst the COE and CRITFC about including specific language in the new BiOp that addresses Treaty fishing in the hopes of providing clear guidance for fisheries operations.

Action/Next Steps: Kyle Dittmer made a request to be copied on the COE's teletype list for the treaty operation. CRITFC will likely submit another SOR on 9/5 for the final September fishery.

Operations Review

Reservoirs – Jim Adams, COE and John Roache, BOR, reported on reservoir operations. Grand Coulee was at elevation 1281.2', and targeting an elevation of 1278' by 8/31. Hungry Horse was at elevation 3548.1' with outflows at 4.4 kcfs and holding through August, with outflows ramping down in September to meet Columbia Falls minimums. Libby was at elevation 2446.4', with inflows of 7.3 kcfs and outflows likely holding at 17.3 kcfs through the end of August. Adams noted that ESP runs show that if Libby shifted to outflows of 15 kcfs on 8/24, it would reach an elevation of 2438.99' by 8/31. Albeni Falls was at 2062.3', with inflows of 9.3 kcfs and outflows of 6.9 kcfs. Dworshak was at elevation 1551', with inflows of .7 kcfs and outflows of 7.9 kcfs. 7-day average flows at Lower Granite were 25.2 kcfs and 161 kcfs at McNary.

Fish – Dave Wills, USFWS, reported that fall Chinook numbers were just starting up and tracking per usual, and that subyearling passage was winding down.

Power system – Nothing to report.

Water quality – Jim Adams, COE, reported one exceedance that occurred 8/14 at Camas/Washougal. He added that the nighttime spill cap at Bonneville would drop by 5 kcfs on 8/15 given the higher temperatures but likely be increased right away with expected cooler temperatures on the way. He also reported that double testing at Little Goose was underway, with TDG levels staying in the range of 115-117%.

Next face-to-face TMT meeting: Wednesday, August 22nd

Agenda items will include:

- Dworshak Operations
- End of Spill Operations
- Operations Update

**Columbia River Regional Forum
Technical Management Team Conference Call
Aug. 15, 2007**

1. Introduction

Today's conference call was chaired by Jim Adams (COE) and facilitated by Robin Harkless (DS Consulting), with representatives from COE, BPA, BOR, CRITFC, Idaho, USFWS, and the barging industry attending. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

2. Review Meeting Minutes

The facilitator's notes for Aug. 8 have been posted, and the official minutes for Aug. 8 will be posted soon. There were no comments on any of the notes today. The Aug. 1 and 8 facilitator's notes can be considered finalized.

3. Navigation Issues Update

Eddies have been forming at Lower Granite and McNary dams, making lock passage on the Snake River difficult for boats that are fully loaded, Jim Adams said. At last week's TMT meeting, the COE proposed new spill patterns, which were discussed and implemented on Aug. 9. Barge operators at McNary have since expressed satisfaction with the new patterns. However, results were mixed at Lower Granite. Some operators are still reporting problems even with the alternate spill pattern employed.

John Piggott (chair of the Columbia River Towboaters Association) expressed concern that water depths in the Snake River may have gone below minimum pool in selected locations. Tow boaters have been working with the COE Walla Walla District on this. The question is whether elevation discrepancies measured at the tailwater gauge and at the downstream forebay gauge imply that, at times, some parts of the river may have elevations below MOP.

At Lower Granite Dam, the COE has installed a gage at the navigation lock which is visible to the lock operator during lockages, John Heitstuman (COE Walla Walla) said. There appears to be about 0.3 or 0.4 feet of difference in the datums of the two projects. The COE is conducting surveys to determine whether there is a datum difference between the two projects. Due to this uncertainty, the COE has placed a soft constraint to keep the Little Goose forebay in the upper half foot of MOP (633.5 – 634 feet). Adams presented a graph linked to today's agenda that depicts the discrepancy. For the most part, the river elevation as measured at the Lower Granite navigation lock gage has stayed above 633 feet at the downstream sill of the Lower Granite navigation lock.

As tow boats enter the lock, their captains communicate with dam operators, Adams said. In response to concerns about water depth, the COE has been operating the pool at Little Goose within the upper half foot, keeping elevations above 633.4 over the past 10 days. There was discussion of integrating elevation data into the GDACS system so it can be downloaded automatically. As it works now, the data is downloaded weekly and is available to the navigation lock operators in real time and the same elevation data are recorded electronically.

Because there's a hard sill where boats exit the navigation lock, that's where tow boaters really need to have adequate water to clear the sill, Piggott said. He asked what is needed to provide accurate readings. When the navigation lock reads 633 feet elevation, the water is actually 15 feet deep over the sill in spite of possible datum differences, the Walla Walla District said. This finding has been verified. The discrepancies occur between the tailwater gage at Lower Granite and the forebay gage at Little Goose – and they become more noticeable during periods of low flow. At such times the tailrace gage readings at Lower Granite are not truly representative of the depths barges experience at the navigation lock.

The industry representatives agreed to work with the Walla Walla District staff to investigate this issue further. If passage is found to be unsafe, and operational changes are recommended, they will bring the issue back to TMT for further consideration.

4. Dworshak Operations

Temperatures at Lower Granite tailwater were 65.3 degrees F yesterday, Adams said, and have been hovering around 65-66 degrees F for at least the past 7 days. Water temperatures are well under the 68 degree criteria.

On the evening of Aug. 11, Dworshak operations went from full powerhouse down to two units, with one in undershot and one in overshot mode. This resulted in a full degree increase in Dworshak outflow temperatures, which have been around 45.5 to 46 degrees F. Temperatures can be expected to rise slowly as the pool drops. A heat wave is predicted in Lewiston for the next few days, followed by cooler temperatures and possibly rain.

Adams presented modeling of three scenarios, 500 cfs, 750 kcfs, and 1 kcfs. If the current operation is maintained and inflows are 500 cfs through the end of August, the reservoir will be at elevation 1,533 feet, roughly 2 feet below the end of August elevation target of 1,535 feet. If inflows average 750 kcfs, the end August elevation will be 1,533.8 feet, or 1.2 feet lower than the target. If inflows average 1 kcfs, the elevation will be 1,534.4 feet on Aug. 31. Inflows at Dworshak have averaged 0.66 kcfs over the past 7 days. Kyle Dittmer (CRITFC) said these comparative graphs are helpful.

At FPAC, the Salmon Managers favored maintaining the current operations and tracking water temperatures weekly, Dave Wills (USFWS) said. The Nez Perce Tribe planned for use of its 200 kaf on the basis of Dworshak reaching elevation 1,535 feet on Aug. 31, but made the target somewhat flexible, Greg Haller said.

The current operation is to run two units, one in undershot and the other in overshot mode with approximately 7.5 kcfs outflows, Adams said. This operation is estimated to

bring the reservoir to 1,535 feet elevation at around 8 pm on Aug. 30. The Nez Perce Tribe was amenable to that operation.

5. Autumn Treaty Fishing

The Tribes are planning to fish from 6 a.m. Aug. 22 to 6 p.m., Aug. 24, and again from 6 a.m. Aug. 28 to 6 p.m. Aug. 31, Dittmer said. The SOR for this fishing season is posted on CRITFC's webpage. The Tribes anticipate a run of around 250,000 Chinook salmon at Bonneville Dam and almost 298,000 steelhead. CRITFC might present an additional SOR for more fishing at the Sept. 5 TMT meeting.

The current SOR requests a 1-foot flow band within specific elevation constraints, Dittmer said. During the fishery, Bonneville will operate between elevation 75 feet and 76.5 feet as a hard system constraint, Adams said. The Dalles pool typically operates within a 3-foot range, and the John Day pool within a 1.5-foot range at elevation 262.5 to 264 feet. This is according to the 1998 Colonel Mogren/Ted Strong agreement. Dittmer asked the COE to send him a copy of its teletyped instructions regarding treaty fishing operations.

6. Operations Review

a. Reservoirs. Libby forebay is at elevation 2,446.4 feet, with average inflows of 7.3 kcfs. Outflows of 17.3 kcfs are being maintained until around Aug. 24, when they will ramp down to 15.7 kcfs. According to STP projections, the reservoir will hit elevation 2,438.99 feet on Aug. 31 under this operation.

Albeni Falls is at elevation 2,062.3 feet, as measured at the Hope gage, with inflows of 9.3 kcfs and outflows of 6.9 kcfs.

Dworshak forebay is at elevation 1,551 feet, with daily inflows of 0.7 kcfs and outflows of 7.9 kcfs. The 7-day average for inflows to Dworshak is about 0.66 kcfs. The 7-day average for inflows to Lower Granite is 25.2 kcfs. The 7-day inflow average at McNary is 161 kcfs.

Hungry Horse is at elevation 3,548.10 feet, discharging 4.4 kcfs through the end of August. Starting Sept. 1, BOR will ramp down the discharges to meet the Columbia Falls minimum flow of 3.5 kcfs Ramp down rates will probably be about 600 kcfs per day to get down to minimum flows.

Grand Coulee is at elevation 1,281.2 feet, heading toward 1,278 feet by Aug. 31. The plan for Banks Lake is the same as every year: draft 5 feet out toward elevation 1,565 at end August. The current elevation of Banks Lake is 1,567 feet, with 1,565 feet expected by end August.

b. Fish. There is not much going on at present, Dave Wills said. The adult fall Chinook run is just starting. Subyearling passage numbers are winding down on the Snake River, but there are still a number of fish passing at John Day and Bonneville dams.

c. Power System. There is nothing to report, Robyn MacKay (BPA) said.

d. Water Quality. There was an exceedance yesterday at Camas Washougal gage, and there will probably be another one today, Adams said. The COE will drop the spill cap by 5 kcfs but will raise it again if the weather cools.

Doble testing is in progress at Little Goose now, moving to Lower Monumental next week and to Lower Granite the following week. TDG levels at the Lower Monumental gage are around 115-117% and there have been no exceedances.

7. Next TMT Meeting

The next meeting will be in person on Aug. 22, with Dworshak operations, end of spill season, and the usual operations review on the agenda. There will be a TMT conference call on Aug. 29 and an in-person meeting on Sept. 5. This summary prepared by consultant and writer Pat Vivian.

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