

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

August 8, 2007 Conference Call

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator/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 posted to the TMT website. No changes or edits to those documents were made during the call.

Action/Next Steps: Meeting summaries and minutes from the 8/1 and 8/8 conference calls will be reviewed and finalized at the 8/15 TMT meeting.

Commercial Navigation Issues

Jim Adams, COE, referred TMT to alternate spill patterns for McNary and Lower Granite dams, posted as links to the TMT agenda. The patterns were developed through the Walla Walla District office, with input from project operators. Adams clarified that the patterns were experimental and would be carefully observed; the patterns aim to minimize lateral flow by shifting spill to alternate bays. Adams noted that the alternate spill pattern for Lower Granite was the one he e-mailed to TMT on 8/6. John Piggott, Columbia River Towboat Association, clarified that the alternate patterns would be used only for barges with loads. He estimated an average of 4-5 lockages per day, for periods of 20-30 minutes each.

Tom Lorz, CRITFC, speaking on behalf of the Salmon Managers, said that there had been discussion of the navigational issue at the FPAC meeting on 8/7; no objections to the proposed patterns were made. Salmon Managers provided input: Russ Kiefer, ID, acknowledged the need for use of the alternate spill patterns, but added that they are less effective for fish passage. Lorz stated that a long term solution that minimizes effects on fish should be part of planning for 2008. Jim Adams, COE, acknowledged the concerns of the Salmon Managers and clarified that the patterns would be used only for barges with deep drafts, and for as little a duration as possible. TMT members weighed in on the proposed spill patterns:

- NOAA: no objection
- USFWS: no objection
- BOR: no objection, defer to COE
- BPA: no objection
- WA: no objection
- ID: no objection
- MT: no objection

- CRITFC: no objections, but look to improve operations for 2008 through FDDRWG discussions

Action/Next Steps:

- The COE will implement alternate spill patterns for barge navigation at McNary and Lower Granite on an as-needed basis.
- Operational options for 2008 will be explored through discussions at upcoming FDDRWG meetings.
- Towboaters will contact operators as they approach McNary and Lower Granite.

Dworshak Operations Update

Jim Adams, COE, reported on Lower Snake River temperatures and referred TMT to several updated graphs linked to the agenda. The Lower Granite tailwater was averaging 66.3°; Orofino temperatures had a daily average of 71.4° and Dworshak was discharging an average temperature of 44.5°, with two units in undershot and one in overshot. Adams said that air temperature data for the Lewiston area showed moderate temperatures for the upcoming week. Predicted vs. actual flows out of Hells Canyon were posted as a link to the agenda and were expected to be near 11.5 kcfs for the upcoming week.

COE modeling showed shaping results for Dworshak operations with inflows of 500, 750 and 1,000 cfs and alternative August dates for shifting outflows from full power house to 7.7 kcfs. Tom Lorz said that the Salmon Managers discussed the modeling at their 8/7 FPAC meeting and that they supported a shift to 7.7 kcfs, deferring to the COE to determine when to make the shift. Russ Kiefer, ID, added that a two-unit operation at Dworshak would likely achieve the end of August elevation goal of 1535' and asked the COE whether running both units in undershot would help maintain temperatures of no lower than 43° and thereby support the hatchery. Adams stated that if both units were set in the undershot operation, outflow temperatures would likely be in the range of 41° F to 42° F. If the large unit was set in undershot and a small unit set in overshot, temperatures could be in the 47° F to 48° F.

Action/Next Steps:

- The COE will continue to operate Dworshak at full power house, with a tentative plan to shift outflows to 7.7 kcfs at midnight on 8/11.
- John Heitstuman, COE, offered to 're-run' the modeling with updated data and flow scenarios for temperatures in the 47-48° range.
- Russ Kiefer, ID, offered to plug data into a spreadsheet he developed to model Dworshak operations.
- Dave Wills, USFWS, offered to contact the Dworshak Hatchery to confirm a preferred temperature range. He will also contact the Nez Perce Tribe, to apprise them of the latest on Dworshak operations.
- USFWS and the COE will discuss Dworshak operations offline on/by 8/10.
- Dworshak operations will be on the agenda for the scheduled 8/15 TMT meeting.

UPDATE: *Cathy Hlebechuk, COE, sent TMT members the following e-mail on 8/9:*
 "Walla Walla District has completed CEQUAL modeling assuming:

-Releases from Dworshak held 10,000 cfs thru August 11 [and shifting to] 7,600 cfs thereafter
-Release Temperature from Dworshak (48 F) (releases are more likely to be 45 to 46 degrees)
-7 day weather forecast from NOAA. Hourly weather data from 2006 thereafter.
Using above assumptions, model shows peak temperature LWG tailwater 19.43 C / 67 F from now through the end of August. We plan to operate the units in the default mode - large unit in undershot and the small unit in overshot starting Saturday night unless TMT desires a different configuration. We will be watching the water temperature on Sunday. If you have any concerns e-mail or call Jim Adams or myself."

Lower Monumental Equipment Installation Update

Bernard Klatter, COE, reported on a request to install equipment at Lower Monumental on 8/14; he clarified that the entire powerhouses would need to be shut down while boats install the gear in front of Main Units 2 and 3. Once this work is completed, then the entire spillway would be closed to install gear in front of spillbay 6. He noted that the outage would take place during the Salmon Manager recommended timeframe of 11 a.m. - 3 p.m.

Action/Next Steps: Klatter will coordinate the request with the signatories to the 2007 Fish Operations Agreement and will issue a teletype.

Operations Review

Reservoirs – Jim Adams, COE and Mary Mellema, BOR, reported on reservoirs. Libby was at elevation 2449.5', with inflows of 8.3 kcfs and outflows of 17.3 kcfs. Albeni Falls was at 2062.2', with inflows of 10.4 kcfs and outflows of 8.3 kcfs. Dworshak was at elevation 1559', with inflows of .8 kcfs and outflows of 10 kcfs. Hungry Horse was at elevation 3550.3' with outflows at 4.4 kcfs and holding through August until September, when outflows will ramp down to 2.2-2.3 kcfs to meet Columbia Falls minimums. Grand Coulee was at elevation 1284.8', and targeting an elevation of 1278' by 8/31. The seven day average at McNary was 157.3.

Fish – Tom Lorz, CRITFC, reported on juvenile fish: sub-yearling daily passage numbers continued to decline, with Lower Monumental passage very low and Little Goose and Lower Granite passage numbers trailing off. Passage at John Day was in the range of 20-50,000 per day and Lorz noted that steelhead passage numbers from Bonneville reflected a relatively late run. Cindy LeFleur, WA, reported on adults: summer steelhead counts were in the 74-7800 range at Bonneville and upriver brights were in the 40-50,000 range.

Power system – Nothing to report.

Water quality – Jim Adams, COE, referred TMT to TDG data linked to the TMT website. Lower Columbia River temperatures were right around 70° F.

Next face-to-face TMT meeting: Wednesday, August 15th

Agenda items will include:

- Dworshak Operations

- Navigational Issues Update
- Autumn Treaty Fishing
- Looking ahead: End of Spill
- Operations Update

**Columbia River Regional Forum
Technical Management Team Conference Call
Aug. 8, 2007**

1. Introduction

Today's conference call was chaired by Jim Adams (COE) and facilitated by Erin Halton (DS Consulting), with representatives from COE, NOAA, CRITFC, BPA, BOR, Montana, Idaho and Washington 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

Meeting minutes for July 25 and Aug. 1 have been posted. There were no comments today.

3. Navigation Issues

Jim Adams gave an update on issues associated with the navigation locks for McNary and Lower Granite. Towboat operators and Walla Walla District staff have met and identified alternative spill patterns for use at the towboat captain's request when entering or exiting the navigation lock. The COE will monitor carefully how these patterns perform.

Kyle Dittmer (CRITFC) asked whether the patterns would reduce spill. It's readjustment, not reduction – the same amount of spill gets shifted to alternate spill bays, Adams said. Russ Kiefer (Idaho) expressed concern about the impacts on fish of changing the spill patterns. Use of the altered spill pattern will be quite minimal because only loaded barges with deep drafts will need it, and only for the approximately 20-30 minutes it takes to pass the lock and out of the spillway.

Tom Lorz (CRITFC) asked, is there some remedy we could look at, particularly at Lower Granite, so special operations aren't needed after this year? Lorz suggested the issue be addressed by Walla Walla FFDRWG. Adams agreed a long term technical solution is needed.

The altered spill pattern shifts spill toward the navigation lock guide wall, Adams said. Of 4-5 lockages per day, only those involving loaded barges would need the spill shift. Idaho, NOAA, USFWS, BPA, BOR, CRITFC, Washington and Montana representatives did not object to this operation.

4. Dworshak Operations

Adams described existing conditions. Temperatures at Lower Granite are trending downward, with a tailwater daily average water temperature of 66.3 degrees F on Aug. 7 and ranging from 65.4 to 67 degrees F over the past two days. Dworshak outflows are 44.5 degrees F, and have been slowly rising since Aug. 1. Currently two units are in undershot mode and one is in overshot mode. Temperatures can be expected to continue to rise gradually.

Adams presented three inflow scenarios for the Salmon Managers to use in decision making: 500 cfs, 750 cfs, and 1 kcfs. At 500 cfs inflows, dropping from 3 to 2 units on Aug. 8 and continuing with 7.5 kcfs outflows would bring the reservoir to elevation 1,535 feet by August 31. At 750 kcfs inflows, the change from full powerhouse to 2 units and lesser outflows would need to happen around Aug. 11. The COE is not proposing any specific operation, Adams said.

John Heitstuman (COE) presented a CEQUAL modeling run showing the base condition (current operations) and one alternative. The base plan doesn't drop flows to 7.7 until Aug. 13, while the alternative drops flows on Aug. 9 and temperatures would rise to 0.6 degrees F warmer than the base condition. Hells Canyon flows have been close to the forecasted levels, but are higher at times and unpredictable as usual.

At FPAC, the Salmon Managers and the COE agreed that reducing flows around Aug. 11 is the most prudent thing to do, Lorz said. The Salmon Managers didn't specify a date for the change, leaving that to the COE's discretion, Kiefer and Dittmer said. With advance notice, BPA can accommodate the change on either Aug. 10 or Aug. 11, Dan Spear said. The ultimate goal is to maintain full powerhouse for a few more days and drop to two units in time for the reservoir to reach elevation 1,535 feet by the end of August.

The group discussed the option of controlling temperatures by operating units in undershot or overshot mode. Putting the big unit in undershot mode and the small unit in overshot mode would probably yield temperatures of 47-48 degrees F, Adams said. If both the big unit and one small unit are in undershot mode, temperatures would probably be around 41-43 degrees F. Idaho preferred that the big unit and one of the two smaller units be operated in undershot mode to maintain temperatures around 43 degrees F. Running both of the smaller units in undershot mode would likely yield water temperatures too cold for steelhead hatchery operations, Russ Kiefer said.

David Wills (USFWS) said he would contact hatchery personnel regarding temperature needs before the COE drops from full powerhouse to two units in undershot mode the evening of Aug. 11. Meanwhile, the COE will contact the Nez Perce Tribe regarding this operation, as there was no Nez Perce

representative on today's call. John Heitstuman will do a model run of the base case operation and a worst case scenario.

5. Lower Monumental Equipment Installation Update

The Walla Walla District has modified an earlier request to schedule Lower Monumental forebay operations for installation of acoustic telemetry rays, Bernard Klatte (COE) said. The initial four-hour spillway outage request has been changed to a request to shut off the powerhouse starting at 11 am, continue spilling while work is done by boat, and bring the powerhouse back on line while the entire spillway is shut down for the installation. USFWS, Idaho, NOAA and CRITFC representatives did not object to this operation.

6. Operations Review

a. Reservoirs. Libby is at elevation 2,449.5 feet, with average inflows of 8.3 kcfs and outflows of 17.3 kcfs. The 7-day average inflow rate is 8.8 kcfs.

Albeni Falls is at elevation 2,062.2 at the Hope gage, with inflows of 10.4 kcfs and outflows of 8.03 kcfs. The 7-day average for inflows is below 10 kcfs.

Dworshak is at elevation 1,559.0 feet, with daily inflows of 0.8 kcfs and outflows around 10 kcfs. The 7-day average inflows for inflows is 0.7 kcfs. The 7-day average for inflows to Lower Granite is 27.1 kcfs. And the 7-day inflow average at McNary is 157.3 kcfs.

Hungry Horse is at elevation 3,550.3 feet, with 4.4 kcfs outflows through the end of August. Operations will ramp down the first week of September to the Columbia Falls minimum of 3,500 cfs. Grand Coulee is at elevation 1,284.8 feet, continuing toward a target of 1,278 feet on Aug. 31.

b. Fish. Lower Granite numbers for juvenile passage are tapering off to a few hundred fish per day, Rich Domingue (NOAA) said. Numbers at Little Goose are also dropping, after having peaked a week or two ago. Passage at Lower Monumental is low, as usual. McNary, John Day and Bonneville dams on the lower Columbia are all passing around 20,000 to 60,000 fish per day. The steelhead migration is nearly over.

The adult fall Chinook run started Aug. 1, with about 300 adults passing Bonneville per day, and large numbers of summer steelhead, Cindy LeFleur said.

c. Power System. There is nothing to report, Scott Bettin (BPA) said.

d. Water Quality. The only TDG issue has been Camas Washougal gage, Adams said. Peak spill rates at Bonneville at night are 138-139 kcfs, and the spill cap during the day is 155 kcfs. Flows in the river are currently too low to hit the

spill cap; as a result, Camas Washougal readings are well below criteria. Temperatures in the lower Columbia have been around 70 degrees F, a daily average.

7. Next Meeting

The next meeting will be on Aug. 15, with Dworshak operations, August treaty fishing, navigation issues, the end of spill, and the usual operations review on the agenda. This summary was prepared by consultant and writer Pat Vivian.

Name	Affiliation
Jim Adams	COE
Rich Domingue	NOAA
Kyle Dittmer	CRITFC
John Piggott	XXXX
Tom Lorz	CRITFC
Bernard Klatte	COE
Jim Litchfield	Montana
Russ Kiefer	Idaho
Cindy LeFleur	Washington
Dave Wills	USFWS
Scott Bettin	BPA
Dan Spear	BPA
Fred Mason	BOR
John Heitstuman	COE
Glen Trager	Coral Energy
Shane Scott	NWRP