

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

August 22, 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 8/8 TMT conference call and 8/15 meeting had been posted to the web. No changes or edits were made to the documents and they were finalized.

Dworshak Operations Update

Jim Adams, COE, reported on Lower Snake River temperatures: the Lower Granite tailwater was averaging 66.7° F; Dworshak was discharging an average temperature of 46.6° F, with outflows of 7.9 kcfs and one big unit in undershot/one small unit in overshot. The Dworshak pool was at elevation 1544', with a seven day average inflow of 0.81 kcfs; Adams noted that inflows had been 1.2-1.3 kcfs the two days prior to the meeting. An STP graph linked to the agenda showed shaping results for Dworshak inflows of 750 cfs, predicting an 8/31 elevation of 1533.9'. Adams noted that there would likely be a shift to a one big unit operation near 9/10. Dave Wills, USFWS, thanked the COE for the head's up and said that the Salmon Managers would consider specific Dworshak configurations as we get closer to September.

Action/Next Steps: The COE will continue to operate Dworshak with one unit in overshot and one in undershot. This item will be on the agenda for the 8/29 TMT conference call.

End of Spill

Bernard Klatt, COE, reported on end of spill specifications at the following projects:

- MOP operations at Little Goose, Lower Monumental and Ice Harbor are set to end on 8/31 at midnight. Paul Wagner, NOAA, speaking on behalf of the Salmon Managers, said that their preferred filling sequence is: Little Goose, then Lower Monumental, then Ice Harbor, to take best advantage of the cooler water upriver. Robyn MacKay, BPA, said that given the low flows, BPA did not anticipate any major issues associated with filling the pools.
- Lower Granite will stay in MOP until natural cooling occurs; Wagner reported that FPOM had discussed the possibility of a MOP+1 to MOP+2 operation through mid-September to support operation of the Lower Granite fish trap.

Action/Next Steps: This item will be on TMT agendas for the next few weeks.

- Spill at McNary is scheduled to end on 8/31; project operators will close the TSW's late on Thursday, 8/30. With spill bays 20 and 22 with the TSW's closed entirely, the Corps requested that this spill be shifted to middle bays (likely bays 10 and 12). The request had been coordinated with Gary Fredericks, NOAA, and Tom Lorz, CRITFC. Paul Wagner, NOAA, speaking on behalf of the Salmon Managers, said that no objection was raised to the request at the FPAC meeting on 8/22.
Action/Next Steps: Spill patterns will be developed through the COE Walla Walla District office; the COE will issue a teletype and link the spill pattern to today's TMT agenda.
- McNary's research-driven spill schedule has alternated between 40 and 60% spill. Due to lack of sufficient water supply to hold spill at 60%, especially on weekends, the COE made a request to shift the 40% and 60% spill blocks so that McNary spill would end with 2 days of 60% spill. Paul Wagner, NOAA, speaking on behalf of the Salmon Managers, said that no objection was raised to the request at the FPAC meeting on 8/22.
Action/Next Steps: The COE suggested addressing the McNary spill pattern in next year's Water Management Plan.
- Bonneville's B2 corner collector will close within 12 hours of the end of spill, in accordance with the Fish Passage Plan.

Special Announcement: Bernard Klatte, COE, announced that he had accepted a position as Lower River Coordinator at the COE Portland District office. Congratulations, Bern!

2008 Water Management Plan

Scott Boyd, COE, reported that a draft 2008 Water Management Plan (WMP) based on the February 2007 version of the Water Management Plan was posted as a link to the TMT homepage. Boyd noted that the new draft had been formatted to be more 'project' specific.

Action/Next Steps: The COE will email TMT members a copy of the 2008 WMP for their review. Comments/edits should be submitted in a redline version, with specific regard to how the new document relates to the existing (2004) BiOP. This item will be on the agenda for the next few TMT meetings.

Operations Review

Reservoirs – Jim Adams, COE and Mary Mellema, BOR, reported on reservoir operations. Libby was at elevation 2443', with inflows of 7.4 kcfs and outflows at 17.3 kcfs. Albeni Falls was at 2062.26', with inflows of 9.86 kcfs and outflows of 8.44 kcfs. Dworshak was at elevation 1544'. Seven-day average flows at Lower Granite were 22.3 kcfs and 137.2 kcfs at McNary. Grand Coulee was at elevation 1281', and targeting an elevation of 1278' by 8/31 and a possibility of a .5' drop below 1278' during the day on 8/31. Hungry Horse was at elevation 3545.86' with outflows at 4.4 kcfs and holding through August, with outflows ramping down to 2.2-2.3 kcfs for 3-4 days in September to meet Columbia Falls minimums.

Fish – Paul Wagner, NOAA, reported on juvenile fish: smolt data showed subyearling Chinook were in the 100 per day range at Lower Granite, in the teens-100 per day range

at Little Goose. He noted that passage at McNary had dropped dramatically, down from 58,000 on 8/11 to 2,500 for the past week. Cindy LeFleur, WA, reported on adult fish: steelhead counts over Bonneville were in the 11,000 per day range and were expected to be above average for the season. Fall Chinook were expected to increase dramatically and peak the week of 8/27.

Action/Next Steps: Cindy LeFleur, WA, will provide an adult passage summary for an early September TMT meeting.

Power system – Nothing to report.

Outages – Don Faulkner, COE, reported that there will be an outage at Little Goose on 9/11-13, to finish double testing. Outages at Ice Harbor will take place on 8/28 to remove USGS equipment and 9/23-27 to allow for equipment calibration.

Action/Next Steps: The Little Goose outage will be on the agenda for the next TMT meeting, to allow further discussion and option generation.

Water quality – Jim Adams, COE, reported one exceedance that occurred 8/17. He added that TDG levels were low overall and that Lower Columbia temperatures were in the 69-70° range.

Next TMT meeting: a conference call on Wednesday, August 29th

Agenda items will include:

- Dworshak Operations
- Outages
- Operations Update

**Columbia River Regional Forum
Technical Management Team Conference Call
Aug. 22, 2007**

1. Introduction

Today's face-to-face meeting was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (formerly Harkless), with representatives from COE, Idaho, BPA, BOR, NOAA, USFWS, Montana 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

Facilitator notes and official minutes for all meetings to date have been posted. There were no comments on them today.

3. Dworshak Operations

Lower Granite tailwater temperatures yesterday averaged 66.7 degrees F, and Little Goose tailwater was 67.1 degrees F, meaning both are under the criteria of 68 degrees, Jim Adams (COE) said. Lower Monumental tailwater was 68.1 degrees or just over criteria, and Ice Harbor tailwater was 71.0. In general the river is cooling.

Dworshak outflows averaged 46.6 degrees F as of yesterday, with outflows still at 7.9 kcfs. The pool elevation is 1,544 feet. Seven-day average inflows are 0.81 kcfs, with inflows of 1.2 or 1.3 over the past few days.

Currently, the big unit is in undershot and the small unit in overshot mode. If it is assumed that the temperature resulting from undershot mode is about 41 degrees F, overshot flows should be around 61.5 degrees F, Adams said. According to the STP run, operations drop down to a single unit sometime around Sept. 10th and operational decisions may need to be made.

Paul Wagner (NOAA) asked, what about dropping to two small units instead? Yes, that's a possibility, Adams said, but the STP run modeled a change to one big unit on Sept. 10, with flows dropping to about 5 kcfs. Using two small units instead, with one unit in undershot and one in overshot mode, would yield temperatures around 50 degrees F. Adams asked TMT whether they would prefer that result, or temperatures in the 40s with the big unit in overshot mode. David Wills (USFWS) suggested TMT decide the week before the change is scheduled to happen.

{Supplemental Notation: The Corps will implement the operational strategy outlined in the 2007 Operational Plan for the use of the Nez Perce Tribe's 200 kaf of Stored Water in Dworshak Reservoir. Any amendments to this strategy will only occur upon unanimous written consent of the parties of the Nez Perce Board}

4. End of Spill

a. Lower Snake River End of MOP. The end of spill is Aug. 31 at midnight, Adams said. A number of issues need to be addressed, beginning with MOP operations in the lower Snake River. FPAC discussed that yesterday and agreed on a strategy of filling the upper reservoirs in sequence from Little Goose to Ice Harbor with cooler water first, beginning Aug. 31. The preference is to keep flows above 10 kcfs minimums in order to fill the pools, Wagner said.

{Supplemental Notation: Minimum flows at Little Goose and Lower Monumental are 11.5 kcfs (March – November). Minimum flows at Ice Harbor is normally 7.5 kcfs (August – November), but due to the Sacajawea transformer outage issue, minimum generation flow at Ice Harbor is 9.5 kcfs in order to provide voltage support to the system.}

Lower Granite will stay in MOP operations until sometime in October, Adams said. Wagner gave TMT a heads-up that a decision point regarding operation of the adult trap at Lower Granite will probably occur in September. The issue is providing enough water for additional fish tanks, Scott Bettin (BPA) said. Cindy LeFleur (Washington) asked, does anybody see a problem with operating at MOP +1 foot in September? We're operating at MOP to MOP+1 on Snake River pools now for the sake of navigation, so you're probably talking MOP+2, Jim Litchfield (Montana) replied. This issue will be on TMT agendas in the coming weeks.

b. McNary TSW Closure and Spill Pattern. Spill ends at midnight on the Friday before a holiday weekend, Bernard Klatte (COE) said. At McNary, operators are required to close the TSWs in bays 20-22 on Friday and shift that spill into the middle of the spill pattern. Because they're not scheduled to work on Friday, the COE is requesting that the TSWs be closed as late as possible Thursday afternoon, Aug. 30. In offline discussions, NOAA and CRITFC representatives didn't see a problem as long as the spill is shifted to the middle of the spill pattern, Klatte said. FPAC has discussed this issue and doesn't see a problem, Wagner said. Klatte will send out a teletype on this operation and post the spill pattern to be used to today's agenda.

c. McNary Spill Schedule. Last year, the COE didn't get definitive information on whether 60% or 40% spill is better for fish, so the COE scheduled spill to alternate between the two levels randomly until the end of spill, Klatte said. Based on early 2000 data, spill below 40% creates bad egress and survival

conditions. On Aug. 20, a 60% spill day, there wasn't enough water to provide 60% all day so Klatte discussed alternative spill operations with several of the Salmon Managers on whether to spill 60% until water is depleted, or spread spill out. The agreed operation was to go to 40% and spread the spill out over the remainder of the 60% block. The same thing is anticipated to occur next Monday, which is also a 60% spill day. The end result of this situation was a COE request to switch the last block of 40% with the last block of 60% spill days around so that there will always be at least 40% spill available. No one objected to this request. FPAC has discussed it and decided it wouldn't be a problem, Wagner said. The only question is, what is the total number of days at 40% or 60% spill? It would be exactly the same number of spill days as planned, just on different days, Klatte said. Bettin suggested this be addressed in the 2008 Water Management Plan.

d. Bonneville B2 Corner Collector Closure. Similar to the request to close the TSWs at McNary early on Labor Day weekend, the COE initially requested to close the B2 corner collector early. The Fish Passage Plan says the corner collector must close within 12 hours of the end of spill. In response to Klatte's coordination efforts to make that happen, Bonneville project staff volunteered to come to work on Friday, Aug. 31 (their day off), and close it.

5. 2008 Draft Water Management Plan

Scott Boyd (COE) introduced a draft of the 2008 Water Management Plan, organized by project this year instead of by strategy. The new format was in response to previous comments regarding the WMP. Boyd explained that he did not use Tony Norris's extensive revision because it was based on a version of the WMP that has since become obsolete.

Boyd, who is managing 2008 WMP development, will email his draft to TMT members and look for comments within the next few weeks. The major effect of the reorganization is that readers will no longer be able to cross-reference a given action, as they could when the WMP was organized according to strategies, Klatte said. Readers will need to look under each project for information on a given action. This could be a challenge because the Bi Ops will continue to be organized by strategy, not by project. WMP development will be on TMT agendas in the coming weeks.

6. Operations Review

a. Reservoirs. Libby is at elevation 2,443 feet, with inflows of 7.4 kcfs and outflows of 17.3 kcfs, Adams said. Albeni Falls is at elevation 2,062.26 at the Hope gage, with inflows of 9.86 kcfs and outflows of 8.44 kcfs.

Dworshak is at elevation 1,544 feet, with details provided in today's discussion. The 7-day average for inflows to Lower Granite is 22.3 kcfs. The 7-day inflow average at McNary is 137.2 kcfs.

Hungry Horse is at elevation 3,545.86 feet, with 4.4 kcfs outflows through the end of August, Mary Mellema (BOR) said. Operations will ramp Hungry Horse discharges down the first week of September to meet the Columbia Falls minimum of 3500 cfs, (the minimum ramp down rate is 600 cfs per day). It will take three or four days to get down to an approximate discharge of 2200 to 2400 cfs. BOR estimates an end of August elevation of around 3542.4 feet and will begin reducing Hungry Horse outflows on Sept. 1.

Grand Coulee is at elevation 1,281 feet. The current plan is to draft the reservoir to 1,278 feet on Aug. 31. The pool elevation may go slightly below 1,278 feet, by up to half a foot for operating flexibility. The elevation will be up to 1,278 feet or higher by early morning on Sept. 1, Mellema said.

b. Fish. Paul Wagner (NOAA) and Cindy LeFleur (Washington) gave updates. Juvenile passage numbers are dwindling, Wagner said. The only sizable migration is subyearling Chinook at Lower Granite, where around 100 per day passed last week. Little Goose is passing less than 100 fish per day, and Lower Monumental is passing around 50 fish per day. McNary is experiencing a dramatic decrease, with an index count of 58,000 fish on Aug. 11, down to 2500 in the past week. A few steelhead are still showing up at Little Goose, but their numbers are dwindling as well.

In terms of adult passage, the best news is adult steelhead – 11,000 or so passing Bonneville per day recently, LeFleur said. Previous index counts indicate this is not the result of delayed migration. It is a dramatic increase over the 5,000 or so fish passing two weeks ago. Peak passage time for fall Chinook begins around Sept. 8. LeFleur will give TMT an update on the run size in two or three weeks. The majority of steelhead are in the Snake River, but they're also going into all the tributaries of the Columbia.

Robyn MacKay asked about sea lions. They're an early spring nuisance, Wagner said, and have gone south by now.

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

d. Water Quality. The last exceedance was on Aug. 17 due to warm weather, Adams reported. Flows and spill have been too low to meet the spill caps, and TDG levels are low in the river. Temperatures in the Columbia are ranging from 69 degrees F at McNary tailwater to 70 degrees F at Camas Washougal gage.

e. Planned Outages. Doble testing at Little Goose didn't get finished last week as planned, Don Faulkner (COE) said. Project staff therefore requested a planned outage 11-13 Sept for 24 hours a day to finish the process. There is a possibility of spreading the outage out over several days, but Wagner said there's not much fish passage at night, so there's little point in doing that. He will bring this issue to FPAC for further consideration and report back to TMT. Doble testing at Goose will be on the Aug. 29 TMT agenda.

There's a planned outage at Ice Harbor on Aug. 28 to remove USGS hydrophones, Faulkner said. Also, Ice Harbor staff has requested an outage on 23-27 Sept. to calibrate the spill gage. Because that's the beginning of peak fall Chinook and steelhead migration, Wagner (NOAA) objected to the 23-27 Sept. Ice Harbor outage. Faulkner will advise project staff to use stop logs to perform the calibration or postpone it until next spring.

7. Next Meetings

There will be a TMT conference call on Aug. 29, with review of meeting minutes, the Little Goose doble testing schedule, Dworshak operations, August treaty fishing, and September operations on the agenda.

There will be another TMT conference call on Sept. 5 to discuss Lower Granite and Dworshak operations, followed by another call on Sept. 19. Gumpert said she would begin gathering information for the TMT year-end review Nov. 28. This summary was prepared by consultant and writer Pat Vivian.

Name	Affiliation
Jim Adams	COE
Russ Kiefer	Idaho
Robyn MacKay	BPA
Mary Mellema	BOR
Scott Boyd	COE
Paul Wagner	NOAA
Dave Wills	USFWS
Jim Litchfield	Montana
Terry Weeks	PNGC
Don Faulkner	COE
Rudd Turner	COE
Bernard Klatte	COE
Tim Heizenrader	Cascade Energy
Bob Deitz	PPM Energy
Dan Spear	BPA
Cindy LeFleur	Washington
Cathy Hlebechuk	COE

Phone:

Barry Espenson	CBB
Scott Bettin	BPA
Laura Hamilton	COE
Tina Lundell	COE
Russ George	WMC
Shane Scott	NWRP
Margaret Filardo	FPC
Ruth Burris	PGE
Mike Schneider	COE
Jennifer Miller	Susquehanna
Tom Lorz	CRITFC