

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

August 30, 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.

Bonneville Unit 8 Rehab

Bernard Klatte, COE, reported on a request from Portland District COE for testing/rehab work on unit 8 at Bonneville, which had also been coordinated through FDRWG. Klatte said that NOAA, OR, and others at FDRWG had supported the request, and that there was a proposed start time of 2 p.m. today (8/30.) Klatte and Cathy Hlebechuk, COE, also noted that the operation could require up to 12 kcfs for 4 hours which would result in a maximum of 4 kcfs less spill at night. Russ Kiefer, ID, inquired as to why the rehab couldn't be done after spill season; Klatte offered that it was likely a contractor availability issue, and offered to share more information about this after the TMT meeting.

ACTION: The COE planned to coordinate with schedulers at BPA as quickly as possible, and then issue a teletype.

Lower Monumental / Ice Harbor Spill for Navigation

Cathy Hlebechuk, COE, stated that an alternate Lower Monumental spill pattern for lower spill amounts had been developed and was available for implementation with regards to safe navigation on August 11th. From August 8th until August 29th, 40 boats passed through the channel, of which 5 requested no spill and 4 requested a spill pattern change. Hlebechuk added that the alternative spill pattern set up at Ice Harbor was not needed as river flows had dropped so spill amounts were low and tows were able to navigate safely with the spill pattern in the 2006 Fish Passage Implementation Plan. She thanked FPOM for their efforts in quickly developing alternative patterns to meet the various objectives for fish and safety at the projects.

Dworshak Operations

Jim Adams, COE, reported that the Dworshak forebay was at elevation 1532.3-.5', expecting to reach 1531' by midnight on 8/31. Temperatures at Lower Granite were holding steady between 66-67 degrees, the Little Goose tailwater temperature was just below 68 degrees, and Lower Monumental had recently dropped below 68 degrees as well. Outflows at Dworshak were at 7.6 kcfs, with temperatures between 46.5 and 47.5 degrees. Anatone outflows were between 14-23 kcfs, with temperatures in the low 70's. Orofino outflows were 1.2 kcfs, with temperatures also in the low 70's. Jim shared a

graph projecting thermocline temperatures at Dworshak at elevation 1520'. Using this graph, Jim predicted outflow temperatures of 48 degrees when the project reduces to minimum outflows when the pool elevation reaches 1520 feet. Operations are expected to continue with outflows at 7.6 until September 6, and then begin ramping down to 5.4 kcfs until the Dworshak elevation reaches 1521'. Flow will then be reduced to 2.4 kcfs for 1 or 2 days, then to minimum outflows to reach elevation 1520'. COE graphs on the TMT website predicted elevations will reach 1520' by September 15 or 16. It was noted that the expected volume for flow augmentation in September, per the Dworshak Board agreement, was around 160 kaf.

Libby/Hungry Horse September Operations

For September operations at Libby, Jim Litchfield, MT, recommended ramping Libby down to 9 kcfs (using the ramp rates posted to today's agenda) and holding flat through the month of September as much as possible, to provide good biological conditions in the reservoir and also support balance with needs of the river. Montana did not object to BPA using some flexibility over a short time (48 hours) if there was a need to increase flows for power needs. Russ Kiefer, ID, agreed that Montana's proposed operation for flat flows through September would support the thriving nutrient enhancement program on the Kootenai River. Hlebechuk, COE, added that the minimum flow rate for October is 4 kcfs, which may call for a gradual ramp down during the last week of September.

ACTION: With no objection from TMT, the COE planned to begin ramping down Libby flows from 14 kcfs on 8/31 at 10 p.m using the BiOp ramp rates. Ramp down will continue until a flow rate of 9 kcfs is reached. More details on the specific operation will be coordinated between COE, MT and BPA, and TMT will check in on Libby operations at the September 13 TMT meeting. Hungry Horse will begin ramping down starting Friday, to meet the Columbia Falls minimum.

Treaty Fishing SOR's

Kyle Dittmer, CRITFC, shared CRITFC's request for autumn treaty fishing operations: for Bonneville, John Day and Ice Harbor, hold the pools within 1' elevation for the weeks of August 21-24th, August 28th- September 1st, and September 5-9th. The COE agreed to a 1' soft / 1.5' hard constraints at Bonneville only, per Ted Strong/Colonel Mogren 1998 meeting. (NOTE: Gil net locations were shared via email following the TMT meeting.)

End of MOP at Lower Granite, Lower Monumental, Ice Harbor

Russ Kiefer, ID, reported on the FPAC recommendation to lift MOP operations at all three Lower Snake projects. He requested filling Ice Harbor first and moving up the system as appropriate.

End of Spill

Cathy Hlebechuk, COE, reminded the group that 0001 hours on September 1 will begin the end of spill. The B2 corner collector will stop at 1500 hours on August 31st, due to the time / staff required for shut down and per the Fish Passage Plan.

Operations Review

Reservoirs: Grand Coulee was at 1280.5' and expected to reach 1280' on September 1. Banks Lake was at 1565.2' and expected to be at 1565' by August 31. Hungry Horse was at 3546' and ramping down at a rate of 1k per day in order to meet Columbia Falls minimum by September 1. Libby elevation was at 2433.9', with 14 kcfs outflows and inflows of 6 kcfs. Dworshak was at 1533.6'. Lower Granite flows were in the 22-28 kcfs range. Hells Canyon flows were in the 9-15 kcfs range, and McNary was averaging 120-160 kcfs.

Fish: Cindy LeFleur, WDFW, reported that the fall migration count was picking up slightly. As of August 30, the numbers were slightly behind the forecast. Paul Wagner, NOAA, reported that the juvenile migration was ending, with Lower Snake numbers dropping below 100, and Lower Columbia counts at 1,000 or less.

Power: Nothing to report at this time.

Water quality: Jim Adams, COE, reported that there had been 5 slight TDG exceedances at Camas/Washougal over the past 2 weeks.

NOTE: Jim Adams, COE, announced that the COE's Draft Monitoring Plan would be out soon, with hopes to finalize it by the end of November. Few if any changes were expected from 2006.

Next TMT Face-to-Face Meeting, August 30th, 9:00-noon

Agenda Items include:

- Libby / Hungry Horse Operations Check-In
- Treaty Fishing Update
- Adult Migration Report
- Chum Presentation – Ken Tiffan, USGS
- Albeni Falls/Lake Pend Oreille Operations
- Draft 2007 Water Management Plan (?)
- Operations Review

Technical Management Team Meeting Notes

August 30, 2006

1. Greetings and Introductions.

The August 30 meeting of the technical Management Team 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. Bonneville Unit 8 Rehab.

Yesterday we got a call about the Unit 8 rehab from Bonneville, said Bern Klatte; apparently it fell through the cracks at Portland District. We coordinated this operation through FPOM; it will require a four-hour test, under a variety of operating conditions. They would like the test to be performed today, Klatte said; the contractors are here, and we would like to start the rehab test at 2 pm today, and run it for four hours.

Some of the issues associated with this test include turning on unit 8 itself, Klatte said; if there are any juveniles in the area, they might be attracted. Adults are another concern. We need to coordinate this through the TMT process so we can send out a teletype and proceed, he said. Total river flow is 120 Kcfs at Bonneville, with 75 Kcfs spill and 33 Kcfs generation. In response to a question, Klatte said there would be no impact on the treaty fishery. Hlebechuk noted that during the test, the project will need to release an additional 12 Kcfs through Unit 8; this will mean a 4 Kcfs reduction in spill during nighttime hours tonight. Klatte noted that this test has been coordinated through and approved by Rick Kruger at ODFW. The test would continue for a maximum of 5 hours.

It sounds as though there would be no impact to the gillnet fishery, but spill would be reduced by 4 Kcfs for 12 hours tonight, if the test runs for four hours as scheduled, said Harkless. It has been coordinated through NOAA, Oregon and FFDRWG; does anyone else have any input on this test? The Service has no problem with it, said David Wills. Why wasn't this scheduled next week, after the spill season ends? Russ Kiefer asked. I think it had to do with the contractor's schedule, Klatte replied.

3. Lower Monumental/Ice Harbor Spill Patterns for Navigation.

Hlebechuk said spill patterns were developed after the last TMT meeting to facilitate navigation through Ice Harbor and Lower Monumental. Flow in the river had dropped, and we needed spill patterns that would work for a lower number of stops, she explained. The good news is, so far, at Lower Monumental, 40 boats have passed since the last TMT meeting; 31 requested no change in operations, only 5 requested no spill, and 4 requested the new spill pattern. At Ice Harbor, they ended up not needing to utilize any of the new spill patterns. Ice Harbor pool was dropped to MOP last Thursday, she added. Overall, the operation went well, and we appreciate FPOM getting together and developing those spill patterns so quickly, Hlebechuk said.

4. Libby September Operations.

Jim Litchfield said he has discussed the Libby operation with Bruce Measure and Brian Merotz; Brian's recommendation, which we would like to see implemented, is to ramp down from the current 14 Kcfs to 9 Kcfs, and hold that outflow volume through the end of September, he said. This will optimize biological conditions in the river below Libby, he said. Perhaps we can ramp down to 9 Kcfs, and revisit that operation at the September 13 TMT meeting, Litchfield said.

I also know there is some interest, on Bonneville's part, in having the flexibility to increase Libby outflow in response to power demand during September, he continued. Brian's response is that an increase, of a limited duration, would be fine, but that any decrease below 9 Kcfs should be avoided if at all possible. How quickly were you proposing that we ramp down to 9 Kcfs? Hlebechuk asked. We're proposing that you follow the ramp rates attached to today's agenda, Litchfield replied, adding that, if the minimum outflow from Libby in October is 4 Kcfs, Montana would advocate a more gradual rampdown from 9 Kcfs to 4 Kcfs toward the end of September.

After a brief discussion, no TMT objections were raised to Montana's proposed September operation at Libby. Hlebechuk said Libby will be ramped down by 2 Kcfs per day, beginning at 10 pm Friday, September 1.

5. Dworshak Operations.

Jim Adams said the current Dworshak elevation is 1532.3 feet; we expect to hit 1531 by tomorrow at midnight. Temperatures in the Lower Granite tailrace are holding in the 66-67-degree range; the whole system is starting to cool down. Dworshak is releasing 7.6 Kcfs at 46.5-47.5 degrees F. Temperatures out of Orofino are in the mid- to low 70s; out of Anatone, they're about the same.

With respect to the thermocline in Dworshak Reservoir, Adams said two units – one large and one small – are currently running in undershot mode. Release temperatures are running about two degrees cooler than forecast, which has led me to re-draw the thermocline, Adams said. My prediction is that we will see a release temperature of about 48 degrees in September, when we reach elevation 1520 at Dworshak and shift to minimum outflows, Adams said. That looks good to me, said Paul Wagner.

The plan is to continue the current operation into September, Adams continued. It looks like we'll need to drop down to 5.4 Kcfs – one large unit – on about September 6 or 7, said Greg Haller. With respect to the operational plan developed by the Dworshak Board, Haller said that plan is based on a number of considerations – temperature conditions, the status of the juveniles rearing in the Clearwater, cultural resources, summer recreation and the status of the juvenile and adult migrations. We expect to maintain 7.6 Kcfs outflow until about September 6 or 7, then drop down to one large unit until we reach elevation

1521, at which point we will reduce outflow to one small unit, about 2.2 Kcfs, for two or three days until elevation 1520 is achieved, Haller said. After that, Dworshak will go to minimum outflow, about 1.4 Kcfs. It looks like we'll hit elevation 1520 by about September 15 or 16, Adams observed.

We'll plan to reduce Dworshak outflow to 5.4 Kcfs at 10 pm on September 6, Hlebechuk said. In response to a question from Kyle Dittmer, Hlebechuk said about 160 kaf of cool Dworshak water will be available for use after September 1 this year, less than the planned 200 kaf. Haller noted that the Nez Perce Tribe had approved the use of that extra 40 kaf during August because of the need to begin Dworshak augmentation earlier than expected in 2006.

6. Treaty Fishing SORs.

Dittmer said CRITFC submitted an SOR covering a two-week treaty fishery beginning August 21 and ending August 31; this SOR requests that Bonneville, The Dalles and John Day pools be held within a one-foot operating range. Hlebechuk said the Corps will maintain the Bonneville pools within 1.5 feet above whatever elevation is attained at the beginning of the fishery. She said there would be a one foot soft constraint at the top of the 1.5' hard constraint range. And why can't you achieve a one-foot band? Dittmer asked. Ted Strong and Col. Mogren discussed that in 1998, and agreed on the 1.5-foot band, only at Bonneville, Hlebechuk said – to operate the lower river projects for power flexibility, we need more than a one-foot range. So it's more of a power constraint? Dittmer asked. I would need to review the specific wording of the agreement, Hlebechuk replied.

7. End of MOP at Little Goose, Lower Monumental and Ice Harbor.

Kiefer said FPAC has been discussing this operation for several weeks and has developed a consensus recommendation. The spill operation will be ending this weekend, at a time when the power demand is usually lower. Our recommendation, to facilitate adult migration, is that refill above MOP begin at Ice Harbor and move upstream, starting September 1. We will give the action agencies some additional flexibility, in terms of timing, this year, and recommend that this be done on a weekly basis, Kiefer said. It sounds, then, as though we will begin to refill the pools on September 1 as power scheduling allows, MacKay said. No objections were raised to this characterization. The Corps noted that Ice Harbor pool needs to be refilled for a special operation by September 6. That sounds very reasonable, said MacKay.

8. End of Spill.

Hlebechuk said the action agencies just wanted to remind everyone that the spill program will end at 12:01 am on September 1, and at 3 pm August 31 at the Bonneville corner collector. Why is that different, just out of curiosity? Kiefer

asked. The corner collector gate is manually operated, and I suspect that the crews didn't want to be out there at midnight, Wills replied. That's in the Fish Passage Plan, Klatt added – it's because of the time and staffing requirements needed to shut the corner collector down.

9. Operations Review.

Reclamation reported that the current Grand Coulee elevation is just over 1280 feet; the project is expected to reach elevation 1280 exactly on August 31. The current elevation at Banks Lake is 1565; it will be at 1280.0 some time between now and August 31. Grand Coulee will begin to refill this weekend, as will Banks Lake. Hungry Horse is at elevation 3546 feet, and will be ramped down by 1 Kcfs per day to achieve the Columbia Falls minimum flow by this Friday. The Corps reported that Libby is at 2339.9 feet, with 14 Kcfs outflow and 6 Kcfs inflow. The current elevation is at 1533.6 at Dworshak; the project hit 1535 on August 28. Lower Granite outflows have been 22-28 Kcfs over the last week; McNary flows, 120-160 Kcfs over the past week.

On the fish front, LeFleur said adult fall chinook numbers are increasing at Bonneville; we're starting to get into the heart of the migration now. The numbers continue to lag slightly behind the pre-season forecast. Wagner said that, with respect to juveniles, the migration period is almost over. Passage indices at Lower Granite, Little Goose and lower Monumental have declined to less than 100; at the Lower Columbia projects, less than 1,000.

No power system issues were reported at today's meeting. On the water quality front, Adams said there have been five slight TDG exceedences at Camas/Washougal in the past two weeks.

10. Next TMT Meeting.

The next meeting of the Technical Management Team was set for Wednesday, September 13. Meeting summary prepared by Jeff Kuechle, BPA contractor.

TMT Meeting Participants August 30, 2006

Name	Affiliation
Russ Kiefer	IDFG
Robin Harkless	Facilitation Team
Jim Adams	COE
Robin MacKay	BPA

Paul Wagner	NOAAF
Cindy LeFleur	WDFW
David Wills	USFWS
Tony Norris	USBR
Cathy Hlebechuk	COE
Ruth Burris	PGE
Bern Klatter	COE
Russ George	WMCI
Tom Haymaker	PNGC
Dan Spear	BPA
Kyle Dittmer	CRITFC
Margaret Filardo	FPC
Bruce MacKay	Consultant
Tom Le	PSE
Richelle Beck	D. Rohr & Associates
Greg Haller	NPT
Jeff Laufle	COE - NWS
Jim Yost	Idaho Governor's Office