

# COLUMBIA RIVER REGIONAL FORUM

## TECHNICAL MANAGEMENT TEAM

July 25, 2007 Conference Call

### FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

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**

Cathy Hlebechuk, COE, mentioned one edit to the official meeting minutes from the 7/18 TMT meeting: on page 8 it should be changed to: "The Dalles was operating within a 3' range."

**Action:** The Corps of Engineers will make the change and post a revised version onto the web.

#### **Dworshak Operations**

Jim Adams, COE, reported on Lower Snake River temperatures and referred TMT to several updated graphs linked to the agenda. Daily averages for Lower Granite tailwater temperatures were 66.5°; Orofino's average was 78.8°, and inflow temperatures at Anatone were averaging 73.8°. Dworshak was operating at full powerhouse (9.6-9.7 kcfs) and was discharging an average temperature of 43.1°. Cathy Hlebechuk, COE, referred TMT to Dworshak models that showed continued flows of 9.6 kcfs through 8/26-27, then dropping to 7.5 kcfs for the last few days in August would bring the project to elevation 1534.4' by 8/31.

Mike Schneider, COE, referred TMT to slides linked to the TMT agenda on the latest CEQUAL modeling for the Lower Snake River. He noted that the 7/24 temperatures at Anatone were the warmest yet this year, at 24°C, and said that Hells Canyon Dam was discharging slightly lower flow rates into the Lower Granite pool. Travel time through the Lower Granite pool had increased slightly, to 5.5 days and average flow weighted inflow temperatures to Lower Granite pool were in the range of 18.3-18.4°. Schneider noted Monday's forecast for air temperatures at Lewiston were at or above 100° for 7/26-27, but said that updated forecasts were trending downward. Kyle Dittmer, CRITFC, said that there would likely be cloud cover coming into the area during the upcoming weekend, which would likely provide some cooling. The CEQUAL modeling showed Snake River temperatures at Lower Granite Dam for the base operation of 9.5 kcfs released from Dworshak Dam will remain at or slightly below the target temperature of 68 F for the next 5-7 days.

Paul Wagner, NOAA, speaking on behalf of the Salmon Managers, thanked the COE for the modeling and said that consensus was reached at the 7/24 FPAC meeting: stay with

the full powerhouse operation range of 9.5-9.7 kcfs. TMT members present on the call: ID, OR, USFWS, Nez Perce Tribe, the COE, BOR, and BPA supported that option as well.

**Action/Next Steps:**

- The COE will continue to operate Dworshak at full power house, targeting temperatures of 43° to support the hatchery.
- The COE will update their CEQUAL modeling and run alternative scenarios per request and, for comparative reference, on stepping back flows in August.
- FPAC members will discuss Dworshak modeling results at their 7/31 meeting.
- Dworshak operations will be on the agenda for the scheduled 8/1 TMT conference call.

**McNary Transport Update**

Paul Wagner, NOAA, on behalf of the Salmon Managers, reported that there were no objections raised at the 7/24 FPAC meeting in regards to the proposed truck transport at McNary beginning on 8/16. Additionally, Bernard Klatte, COE, reported on a proposed barge transport following the passage of test fish, likely on 8/2. The docking of the barge would require the closure of the spillway, followed by spill patterns described in the Fish Operations Plan. TMT members did not raise any objections to this operation during the call.

**Lower Monumental Research Equipment Installation**

Ann Setter, NWW, reported on a request for an outage on 8/14 to install equipment in the Lower Monumental forebay. She added that CRITFC suggested timing the outage between 11 a.m. - 4 p.m., when fish passage is the least active. Setter also reported on a goal of tagging 2800 fish at Little Goose, to follow up on the 2006 pilot hydrology tests and see how to best facilitate fish movement through the project. This would require tagging all fish that pass at Little Goose. TMT members did not raise any objections to the outage request or the tagging request.

**Bonneville Testing Outside 1%**

Bernard Klatte, COE, reported on a request to operate each unit outside 1% peak efficiency at Bonneville power house 2 for a performance modeling exercise. Beginning 8/10, the testing will last 1 hr each day for 7 consecutive days, in order to test each unit one at a time. Klatte clarified that the request for the operation had been vetted through FPOM, and will be coordinated with the signatories of the 2007 Fish Operations Agreement and then reported to the court. Klatte added that the timing of the operation was due to a contract already in place. CRITFC suggested timing the outages between 11 a.m. - 4 p.m., when fish passage is the least active.

**Action/Next Steps:** If TMT members have any concerns, they should pass them on to their FPOM representative.

**Operations Review**

*Reservoirs* – Jim Adams, COE; John Roache, BOR; and Robyn MacKay, BPA, reported on reservoirs. Dworshak was at elevation 1575', with inflows of .7 kcfs and outflows of 9.7 out. Libby was at elevation 2454.2', with outflows of 17.3 kcfs. It was noted that with higher inflows, maintaining outflows of 17.3 kcfs will not achieve a 20' draft by the end of August; instead, the project would continue to draft into September. All TMT members supported steady outflows of 17.3 into September at the project. Hungry Horse was at elevation 3554.45' with outflows holding at 4.4 kcfs. Grand Coulee was at elevation 1287.2', with flows adjusted as needed for power and targeting an elevation of 1278' by 8/31. Because of high inflow into Canadian projects, the U.S. reach an agreement with Canada/BC Hydro to reshape flows in order to avoid a 'big spike' in discharge out of Arrow. As such, BC Hydro will maintain flows of 70 kcfs, then return to normal flow levels in late August.

*Fish* – Paul Wagner, NOAA, reported on juvenile fish: sub-yearling daily passage numbers were consistent at most projects, with passage numbers dropping most notably at Lower Monumental. McNary passage was in the 50,000 per day range. Cindy LeFleur, WA, reported on adult fish: Chinook passage was in the 400 per day range and summer steelhead were in the 1-3000 per day range.

*Power system* – Nothing other than the BC Hydro operation to report.

*Water quality* – Jim Adams, COE, reported one TDG exceedances over the 7/21-22 weekend at the Camas/Washougal fixed monitoring station. He noted that TDG levels had lowered and that the spill cap at Bonneville was 150.

**Next TMT meeting: Conference Call on Wednesday, August 1<sup>st</sup>**

Agenda items will include:

- Dworshak Operations
- Bonneville Operations Outside of 1%

**SAVE the DATE:** The TMT Year End Review Meeting will be held from 9-5 on November 28<sup>th</sup>, at the Robert Duncan Plaza. More details and an agenda will be shared as we approach the meeting date.

**Columbia River Regional Forum  
Technical Management Team Conference Call  
July 25, 2007**

**1. Welcome and Introductions**

Today's conference call was chaired by Cathy Hlebechuk and facilitated by Donna Silverberg, with representatives from NOAA, USFWS, BOR, BPA, COE, the Nez Perce, CRITFC, Oregon, Idaho, Montana, Washington, and FPC on the line. The following is a summary (not a verbatim transcript) of the discussion and decisions made on the call. 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 last week's meeting on July 18 were posted this morning for review, Jim Adams (COE) said.

Cathy Hlebechuk (COE) made a correction to the official minutes for June 27 under item 8, Operation of the Lower Columbia Pools for the Summer 2007 Treaty Fishery. The Dalles operates within a 3-foot range, not a 43-foot range as the minutes said.

**3. Dworshak Operations**

Water Temperatures: The daily average temperature of outflows at Lower Granite is around 66.5 degrees F, Adams said. Kyle Dittmer (CRITFC) noted that there are one or two instances where temperature data for Orofino gage are incorrect in the July water temperature report for the Clearwater River.

Temperatures at Orofino gage are averaging 78.8 degrees F, Adams said. Inflows coming from Anatone gage are currently about 73.8 degrees F. Outflows at Dworshak are currently 9.6 or 9.7 kcfs at full powerhouse, with two units in undershot mode and one unit in overshot mode. Dworshak outflow temperatures are currently 43.1 degrees F.

According to this week's STP inflow projections, continuing 9.5 kcfs outflows from Dworshak until Aug. 26 or 27 would put the reservoir at elevation 1,534.4 on Sept. 1 at midnight, Hlebechuk said. That sounds like a good operation, Dave Haller (Nez Perce) said.

CEQUAL Modeling: We're seeing the warmest temperatures of the year on the Snake at Anatone gage, Mike Schneider (COE) said – yesterday above 24 degrees C. Hells Canyon outflows backed off this past weekend, with higher discharges briefly over the past two days.

Temperatures of outflows at Lower Granite have been in modest decline for the past two days, Schneider said. Flow weighted inflow temperatures to Lower Granite pool have been fairly flat at 18.3 or 18.4 degrees C. Travel time is up to 5.5 days, which is longer than in the past. Consistently over the past 3 weeks, 42% of the flow into Lower Granite has been originating from the Clearwater River.

NOAA weather forecasts for Lewiston show temperatures of over 100 degrees F on July 26 and 27, with a decline over the weekend, according to this mornings' forecast. Temperatures of the unregulated flows contributing to Lower Granite inflow have been slow to climb. Schneider reminded TMT that Hells Canyon releases are a wild card.

Schneider modeled two scenarios:

1. Maintain powerhouse capacity at Dworshak through the end of this month.
2. Step up to 12 kcfs for 3 days starting tomorrow, July 26.

Starting tomorrow, a general warming trend is predicted, with temperatures projected to exceed 20 degrees C around Aug. 1, Schneider said. The 3 days of additional flows under alternative 2 indicate that outflow temperatures would drop by as much as 0.83 degrees C in response to the increased outflows from Dworshak. Schneider reminded TMT of the tradeoff involved in using up that water now.

The Salmon Managers reached consensus at yesterday's FPAC meeting to maintain full powerhouse, 9.5 to 9.7 kcfs, Paul Wagner (NOAA) said. Representatives for CRITFC, the Nez Perce, Oregon, Idaho, COE, and BOR agreed to that operation.

Adams asked, is there a desire for more modeling in preparation for a future decision? Updated modeling based on next Monday's forecasting information would be helpful at the FPAC call Tuesday morning, Wagner said.

Schneider wondered what would result from taking advantage of an opportunity to reduce load and reach elevation 1,535 feet by end August. NOAA and Idaho representatives thought considering that scenario would be fine. Schneider will include it in next week's model.

#### **4. Libby Operations**

Due to increased STP inflow projections, maintaining 17.3 kcfs outflows through August would result in less than a 20-foot draft from the pool, Adams said. The agreement was for essentially a fixed operation, meaning that any increased volume would accrue to the reservoir, Wagner said. The end result of

a higher elevation than 2,439 feet at the end of August is continuing to draft into September. Jim Litchfield (Montana) said that's a good operation.

### ***5. McNary Transport Update***

FPAC discussed this and voiced no objections to switching to truck transport on Aug. 16 at McNary, Wagner said. However, the Salmon Managers have not yet discussed switching to barge transportation when testing is complete. He asked the COE what the plan is.

There is a potential for starting fish barging after the last tagged fish are released, Bernard Klatte (COE) said. It appears that all tagged fish will have passed McNary by Aug. 1, so barging could start once the TSWs have been closed, probably around Aug. 1 or 2. Wagner said he had not heard any objections during previous discussions of this operation.

The Salmon Managers did not object to having barging start at McNary after the last tagged fish pass, then switching to truck transportation on Aug. 16.

### ***6. Lower Monumental Research Equipment Installation***

COE is requesting a 4-hour outage on Aug. 14 to install monitoring equipment in the boating restricted zone (BRZ) of Lower Monumental forebay, Ann Setter (COE) said. Prior to this call, Tom Lorz (CRITFC) agreed to the request, preferring that it be done between 11 a.m. and 4 p.m., the lowest passage time of day.

A second item: COE is requesting permission to take all collected fish in order to meet a project goal of tagging 2,800 fish. Doing so would effectively eliminate transport in September, which is the timeframe for tagging subyearling Chinook.

The purpose of the BRZ study is to look at correlations between hydraulic and weather conditions during summer in the forebay that might correlate with fish movement stopping. The study found that fish seem to be stopping in the lower half of the reservoir. The 4-hour outage is being requested to look at velocity, magnitude and direction of flows relative to RSW placement in spill bay 8, a follow-up on a pilot study last year. Idaho, NOAA, Oregon, USFWS, Washington, and CRITFC representatives did not object to the outage.

### ***7. Bonneville Testing Outside 1 Percent***

The COE Portland District is requesting to test units at powerhouse 2 outside the 1% peak efficiency limit, Klatte said, as part of a model validation exercise. The schedule for this operation – one hour per unit between 11 a.m. and 2 p.m. on Aug. 10-17 – has already been coordinated through FPOM. It is

being scheduled during fish passage season due to contractor availability. The COE will contact the signatories to the 2007 operations agreement and report it to the court, Klatte said. He advised the Salmon Managers to communicate any issues they have with this operation through their FPOM representatives.

## **7. Operations Review**

**Reservoirs:** Dworshak is at elevation 1,575 feet, with inflows of 0.7 kcfs and outflows of 9.7 kcfs. Hungry Horse is at elevation 3,554.5 feet, discharging 4.4 kcfs through end August, probably to elevation 3,542 feet if the current forecast holds. Grand Coulee is at elevation 1,287.2 feet, with an Aug. 31 target elevation of 1,270 feet. Libby was discussed under agenda item 4.

**Fish:** Subyearlings are still showing up at all the projects, Wagner said. Passage numbers are decreasing substantially at Lower Monumental; Wagner wondered whether that was a trend or temporary. The peak of 500,000 subyearlings passed McNary on July 12, with current numbers around 50,000 per day. Most of these are Hanford hatchery fish.

Adult passage is winding down, Cindy LeFleur (Washington) said. Approximately 400 Chinook are passing each project per day, and approximately 1-3,000 summer steelhead pass each project per day.

**Power:** On Friday, July 20, Canada requested a reshaping of flows out of Arrow so they wouldn't have to go to 90 KCFS for a few weeks and drop back to 50 KCFS in August, Robyn MacKay (BPA) said. So BC Hydro has upped flows to a little over 70 KCFS and will be holding that flat until sometime in late August. All water will come out of the reservoir, but there won't be a spike and drop in discharges out of Arrow Dam.

**Water Quality:** There were a couple of exceedances last weekend, Adams reported – 116 % at the Camas Washougal gage, but wind stripped the gas from the lower Columbia. The spill cap is 150 kcfs at Bonneville.

## **8. Schedule Year End Review and Next TMT Meetings**

The 2007 year-end review will be all day on Nov. 28, located at the COE Portland District 3<sup>rd</sup> floor conference room. More information will follow.

The next regularly scheduled TMT meeting will be a conference call on Wednesday, Aug. 1, to discuss Dworshak operations and the COE's request to operate outside the 1% spill limit at Bonneville, as well as the standard operations review. This summary prepared by consultant and writer Pat Vivian.

<b>Name</b>	<b>Affiliation</b>
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Rick Kruger	Oregon
Robyn MacKay	BPA
Tony Norris	BPA
Dan Spear	BPA
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