

# COLUMBIA RIVER REGIONAL FORUM

## TECHNICAL MANAGEMENT TEAM

July 15, 2009 Conference Call

### FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Erin Halton

Notes: Christa Leonard

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 Minutes/Agenda**

No further edits were made to the 7/8 facilitator's notes / official meeting minutes and both sets were considered final.

#### **Review Dworshak Operations**

Dan Feil, COE, reminded TMT members of the prior weeks' operations at Dworshak, per the discussion by TMT members during the July 8<sup>th</sup> TMT meeting. He then referred TMT to three links posted to the TMT agenda which detailed data modeling on water temperatures and forecasting. Feil noted that so far, operations are helping temperatures stay “well ahead of the curve”, with the Lower Granite tailwater at 64.6°F at 0800 hours.

Steve Hall, COE, referred TMT to graphs posted as links to the agenda; he noted that outflows increased out of Dworshak on 7/10 are reflected in Lower Granite temperatures that were observed on 7/13. He added that Mike Schneider, COE, has helped with the modeling and said the forecasting models are predicting/tracking temperatures fairly well. He said the 10-day forecast shows a warming trend and clarified that with the assumed outflows of 9.5 kcfs through 7/20, modeling shows temperatures should stay at or below 64-65°F at Lower Granite tailwater.

Paul Wagner, on behalf of the Salmon Managers, thanked the COE for their modeling work. He noted that FPAC suggests maintaining 9.5 kcfs outflows, with a contingency plan of increasing outflows to 12 kcfs if temperatures at Lower Granite tailwater rise above 66.0°F (instantaneous read.) Wagner clarified that this contingency is recommended to provide a “good buffer” that would cover the trend of increasing temperatures. The two day lag time is also a factor in the decision making. Feil asked, given the model, if temperatures stay steady would the Salmon Managers consider a recommendation to drop outflows by a couple of units? Russ Kiefer, ID, said that as this is a critical time for fish passage, they would prefer to hold at full powerhouse, which provides better flow pattern for fish. Dave Wills, USFWS supported that as well.

**Action/Next Steps:** All TMT members present on the call agreed to the short term plan. The COE will monitor temperatures closely and will send an email if temperatures rise above 66.0°F. This item will be on the agenda for the 7/22 TMT call.

### **Treaty Fishing SOR's**

Kyle Dittmer, CRIFTC, referred to SOR 2009-C4 posted as a link to the agenda, which requested pool elevations for the last week of summer Treaty fishing July 15<sup>th</sup> at 0600 through July 17<sup>th</sup> at 6:00pm. Dittmer noted that an aerial flight survey on July 9<sup>th</sup> observed 283 nets total; 92 at Bonneville, 55 at The Dalles, 136 at John Day. Dittmer said that the tribes are likely now done with fishing for summer 2009 and that he expected the next round of Treaty Fishing SOR's to come as Fall Chinook begin running in mid-August through October.

**Action/Next Steps:** The COE said they planned to operate the pools as they have in response to the prior SOR's: Bonneville under a 1' soft / 1.5' hard constraint; The Dalles under a 1.5' soft / 3' hard constraint; and John Day under a 1.5' hard constraint. Dittmer will provide a summer Treaty Fishing season review for the 7/29 TMT meeting.

### **McNary Juvenile Transport**

Dan Feil, COE, reminded TMT that the FOP calls for transportation operations to initiate between July 15<sup>th</sup>-30<sup>th</sup>; Feil said the COE would like to begin transportation as soon as possible and asked the Salmon Managers for their recommendation. Paul Wagner, representing the Salmon Managers, agreed and added that 500,000 Fall Chinook are tagged for study and collection/ transport will allow for gathering of good data and will help inform management of operations in the years ahead. Feil asked for TMT members to weigh in on initiating transportation on 7/15:

- NOAA: no objection.
- BPA: no objection.
- BOR: no objection.
- USFWS: no objection.
- ID: no objection.
- OR: no objection
- Also: Kyle Dittmer, CRIFTC: no objection.

**Action/Next Steps:** The COE planned to initiate collection/transportation immediately.

### **Little Goose Low Flow Operations**

Dan Feil, COE, referred TMT to a graph posted to the TMT agenda and said the COE recommendation is to increase pool elevation over the next week to MOP + 1, that will keep the pool safely above minimum navigation elevation. Feil acknowledged that the trigger of flows in the range of 50 kcfs is different than what is in the FOP and explained for TMT members that when switching from one to two units, a 1' wave is created which travels at about 10 miles per hour. If a 1' buffer is present then levels will stay above minimum navigation elevation. Rust Kiefer, ID, clarified that salmon managers were more easily amenable to this type of buffer in the spring when the effects on fish migration is likely to be less significant. While the salmon managers recognize the need to provide safe migration, they said they would caution against causing passage delays during this summer migration season. TMT members discussed long term options that may include changing spill operations and also referenced Fish Passage Plan data

(Section B) regarding spillway weir operations. Feil asked for TMT members to weigh in on operating Little Goose pool elevation to MOP+1:

- NOAA: no objection.
- BPA: no objection.
- BOR: no objection.
- USFWS: no objection.
- ID: no objection – plan to continue to review data to see if there might be other options that could be explore for future year’s operations.
- OR: will take proposal back to OR management for consultation and will report back to the COE as soon as possible.
- Also: Kyle Dittmer, CRITFC: has not yet coordinated with CRITFC management - will report back to the COE later in the day.

**Action/Next Steps:** Feil asked for feedback from OR and CRITFC by the end of the day if possible. In the absence of any objections, the COE will operate Little Goose pool elevation to MOP+1

### **Operations Review**

**Reservoirs:** Grand Coulee was at elevation 1288.0'. Hungry Horse was at 3558.89', with outflows of 2.2 kcfs. John Roache, BOR, said that minor adjustments may be made in the next week or two to increase outflows to 2.5 kcfs. Libby was at elevation 2436.97', with inflows of 17.8 kcfs, outflows of 7.0 kcfs, in keeping with Bull Trout minimums. Albeni Falls had inflows of 23.4 kcfs and outflows of 21.5 kcfs. Dworshak was at 1591.71' with inflows of 3.1 kcfs and outflows of 9.6 kcfs. Lower Granite flows were at 49.8 kcfs, McNary had flows of 182.1 kcfs, and Bonneville flows were at 189.1 kcfs.

**Fish:** Paul Wagner, NOAA, reported adult summer Chinook were winding down to approximately 1,000 per day at Bonneville. Conversely, Steelhead were picking up to 2,700 per day. Sockeye were trending down to about 500 per day. Subyearling fall Chinook at Lower Granite were in the range of 3,000-5,000 per day. Little Goose: 1500-2000, McNary: 200,000-300,000. John Day and Bonneville 20,000-50,000 range.

**Power System:** Nothing to report.

**Water Quality:** Laura Hamilton, COE, referred to updated TDG data linked to the TMT webpage and said that all TDG gauges working well.

**TMT Schedule:** Conference Call scheduled for July 22nd at 9:00am.

July 22nd meeting agenda items include:

- Dworshak operations update
- McNary juvenile transport operations update
- Lower Granite low-flow operations update
- Libby operations update
- Seasonal Treaty Fishing Review

**Columbia River Regional Forum  
Technical Management Team Conference Call  
July 15, 2009**

***1. Introduction***

Today's TMT call was chaired by Dan Feil (COE) and facilitated by Erin Halton (DS Consulting), with representatives of COE, BPA, Idaho, Oregon, USFWS, NOAA, BOR, CRITFC, and others participating. 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 for July 8, 2009***

There were no comments on the facilitator's notes or official minutes today.

***3. Dworshak Operations***

Dan Feil (COE) gave an update on Dworshak operations. At the last TMT meeting July 8, TMT members agreed that Dworshak outflows should be stepped down from full powerhouse to 7.5 kcfs, with a contingency of returning to full powerhouse if Lower Granite tailwater temperatures exceeded 66 degrees F by July 10. That morning the Lower Granite tailwater temperature hit 66.2 degrees F, and the Dworshak operation reverted to full powerhouse at 11 am.

The first link to this item on today's agenda shows that the Lower Granite tailwater temperature is now 64.5 degrees, and river temperatures remain low. Attachment A also demonstrates that, assuming 2 days' travel time from Dworshak to Lower Granite, temperatures at the Anatone and Clearwater gages responded quickly to the cooler flows, although the reservoir temperature did not.

Steve Hall (COE) directed TMT to attachment C for this item on today's agenda, and explained that the COE has modified its model to provide more accurate forecasts when river temperatures are low. Attachment C shows the forecasts and actual temperatures, using flat 10 kcfs flows and the year 2002 as a model (which was quite a bit warmer than 2009 is turning out to be). This graph depicts how accurately the model has been predicting Lower Granite temperatures, Hall said. It stops after 8 days because weather conditions can't be reliably predicted beyond that. The model assumes that Dworshak operation will continue at full powerhouse flows of 9.5-10 kcfs and takes into account the warm weather expected this next week. Even so, the model shows Lower Granite tailwater temperatures will remain between 64-65 degrees F. The message here, Hall said, is that the cooling effect of increased flows from Dworshak probably won't be needed next week despite the coming heat wave.

Kyle Dittmer (CRITFC) gave TMT an update on EPA's temperature modeling using the RBM-10 forecasting method. Both model runs are tracking well, Dittmer said. Dworshak outflows could increase to 12 kcfs, depending on whether Dworshak goes to flat flows or the Nez Perce operation.

The Salmon Managers' consensus at FPAC yesterday, absent this modeling information, was to keep current discharges at 9.5 kcfs or full powerhouse, while maintaining the 66-degree threshold as a contingency for increasing Dworshak discharges to 12 kcfs, Paul Wagner (NOAA) said. An hourly reading of higher than 66 degrees would trigger these increased flows.

Feil suggested that, since temperatures are low, water could be saved by ramping down somewhat. Russ Kiefer (Idaho) responded that both flow and temperature are important, and dropping Dworshak back to 2 units now would mean having to spill later in order to use the full amount of flow augmentation from Dworshak reservoir. Spill at this stage of the season would slow down fall Chinook migration. Kiefer therefore opposed conserving water now for that reason, and Dave Wills (USFWS) supported this reasoning. The flows are needed now, and minimizing excessively large spill volumes later is a good thing.

The latest STP run and box whiskers plot (available on the TMT web page under ESP forecasts for Dworshak Dam) projects an average of 11.5 kcfs outflows through August, Hall said. He emphasized that water used now won't be available later in July or the first half of August to help keep Lower Granite temperatures below 68 degrees F. The volume available could be shaped in a variety of ways – 15 days of 14 kcfs flows, for example, or 22 days of 12 kcfs. Kiefer assured Feil that FPAC members considered this as part of their discussion yesterday.

The ESP traces show little variation in projected average inflows for the rest of the summer. Feil will notify TMT if temperatures at Lower Granite reach 66 degrees F, triggering an increase to 12 kcfs outflows from Dworshak. There were no objections to this operation.

#### ***4. Treaty Fishery – SOR 2009-C4***

SOR 2009-C4 requests 1-foot stable elevation bands at the three lower Columbia River pools from 6 am on July 15 to 6 pm on July 17, Kyle Dittmer (CRITFC) reported. CRITFC's latest aerial survey found 283 nets in the lower river pools, with 92 (32.5%) of those in the Bonneville pool, 55 (19.5%) in The Dalles pool, and 136 (48%) in the John Day pool. The tribes anticipate that SOR 2009-C4 will be the last SOR of the summer, Dittmer said. Fall fishing season usually begins in mid to late August, depending on the fall Chinook run.

The COE will operate the three lower river projects as it has for previous treaty fisheries, Doug Baus (COE) said. There will be a 1.5-foot hard constraint on elevation fluctuations at Bonneville, a 1.5-foot soft constraint at The Dalles,

and a 1.5-foot hard constraint at John Day. These instructions have already been teletyped to project operators.

### **5. Juvenile Transportation at McNary**

The summer Fish Operations Plan states that TMT will consider initiating transportation at McNary Dam any time between July 15 and July 30, Feil said. The COE proposed to begin transportation as soon as possible.

FPAC discussed transportation yesterday and agreed to begin collection now, Wagner said, for the main purpose of collecting fish for a large transportation study of Snake River projects. The tagging of 500,000 fall Chinook is the largest effort undertaken to date to examine the effects of transportation at all projects. Beginning collection now will provide information on how to handle transportation better in future. As the configuration of all the projects changes, what's needed is a clearer picture of how transportation fits in, and this study will be a big help.

The COE proposed to begin collection and transportation activities every other day at McNary. Representatives of Idaho, Oregon, USFWS, CRITFC, BOR and BPA had no objections to this operation. There were no Montana or Washington representatives present today.

### **6. Little Goose Low Flow Operations**

Feil showed TMT a graph of 2008 summer operations at Little Goose, linked to today's agenda. The graph indicates that the Lower Granite navigation lock hits its minimum elevation of 633 feet when flows at Lower Granite dip below 50 kcfs. So that's the rationale for using 50 kcfs flows as a threshold for bumping up the Lower Granite pool elevation to MOP+1, although a trigger of 40 kcfs was identified in the summer Fish Operations Plan before this analysis was conducted. The navigation problem is caused by wave action that starts at Little Goose when the operation switches back and forth from 1 to 2 units at low flows and the trough of the wave hits the Lower Granite navigation lock.

With Lower Granite outflows at 56 kcfs today, the COE is watching the situation closely and expects to shift from MOP to a MOP+1 elevation sometime next week. Feil recalled that members at last week's TMT meeting did not object to this operation, with the possible exception of CRITFC pending internal discussion. Today, CRITFC and Oregon representatives both said they would need to confer internally before they could support this operation.

Russ Kiefer explained why a MOP+1 operation is easier for fish managers to accept in April than it is now. Delaying spring migrants has little impact on their arrival at the ocean, whereas the life history of fall Chinook summer migrants is altered if summer migration is delayed. Raising the pool elevation by a foot might only slow them down a bit, but it could still have adverse effects. Kiefer sought a solution that would meet navigation and power needs without delaying migration.

He said he wouldn't object to the MOP+1 operation at this time, but voiced an intention to spend more time seeking a better solution.

There was discussion of switching from 30% spill to flat spill via one unit at Little Goose, a tactic that has been used in previous years to deal with the navigation issue. Tony Norris (BPA) asked about training spill, and Feil directed him to Table LGS-11 in Section 8 of the Fish Passage Plan for detailed information. The only way to keep the river flat at a standard MOP operation would be to alter the spill percentages daily, Norris observed.

USFWS, NOAA, BOR, and BPA voiced no objections to the COE's trigger for switching to a MOP+1 operation at Lower Granite. Oregon and Idaho will confer with the COE later today. Montana and Washington representatives weren't present.

## **8. Operations Review**

**a. Reservoirs.** Grand Coulee is at elevation 1,288 feet. Hungry Horse is at elevation 3,558.89 feet, with 2.2 kcfs outflows. Kiefer asked whether Hungry Horse outflows will be increased this season. There may be a small increase, say from 2.2 to 2.5 kcfs, John Roache (BOR) replied.

Libby is at elevation 2,436.97 feet, with inflows of 17.8 kcfs and outflows of 7 kcfs. The sturgeon pulse ended July 12 and the operation switched to bull trout minimum flows. Albeni Falls inflows are 23.4 kcfs and outflows are 21.5 kcfs. Dworshak is at elevation 1,591.71 feet, with inflows of 3.1 kcfs and outflows of 9.6 kcfs.

Seven-day average inflows are 49.8 kcfs at Lower Granite, 182.1 kcfs at McNary, and 189.1 kcfs at Bonneville.

**b. Fish. Adults** – Summer Chinook are still passing Bonneville at the rate of just under 1,000 fish per day. Steelhead passage is picking up, with 2,700 fish per day as of yesterday. Sockeye passage is down to 500 fish per day.

**Juveniles** – Subyearling fall Chinook are the most active, with a rate of 3,000-5,000 fish per day passing both Lower Granite and Little Goose. Counts are 1,500-2,000 fish per day at Lower Monumental; 200,000-300,000 fish per day at McNary; and 20,000-50,000 fish per day at both John Day and Bonneville. Subyearling passage is expected to continue at these rates through July and decline quickly in August.

**c. Power System.** There was nothing to report today.

**d. Water Quality.** Laura Hamilton (COE) gave an update. The COE posts the number and location of total dissolved gas exceedances on a page linked to the TMT site. There is also a link on the TMT page that shows spill caps for all of the projects. All of the TDG gages are up and running.

## **9. Next Meeting**

The next scheduled TMT meeting will be a conference call July 22, with Dworshak operations, transportation planning, navigation at Lower Granite, Libby operations, and review of meeting minutes for today on the agenda. The next meeting will be in person July 29. This summary prepared by consultant and writer Pat Vivian.

<b>Name</b>	<b>Affiliation</b>
Dan Feil	COE
Kim Johnson	COE
Doug Baus	COE
Tony Norris	BPA
Steve Barton	COE
Steve Hall	COE Walla Walla
John Heitstuman	COE Walla Walla
Russ Kiefer	Idaho
Tim Heizenrader	Centaurus
Rick Kruger	Oregon
Laura Hamilton	COE
Rudd Turner	COE
Dave Wills	USFWS
Scott Bettin	BPA
Paul Wagner	NOAA
John Roache	BOR
Kyle Dittmer	CRITFC
Eric Volkman	BPA
Richelle Beck	DRA
Barry Espenson	CBB
Russ George	WMC
Ruth Burris	PGE
Rob Diaz	Integral Renewables
Tom Le	Puget Sound Energy
Ian Berg	Velocity Energy