

# COLUMBIA RIVER REGIONAL FORUM

## TECHNICAL MANAGEMENT TEAM

September 5, 2007 Emergency TMT Call

### FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Robin Gumpert

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.

#### **Official Minutes/Facilitator Notes**

Notes from the 8/29 and emergency 8/30 TMT conference calls were not yet posted and would be by early next week. Comments on those, and this set of notes can be raised at the 9/26 face to face TMT meeting.

#### **Dworshak Operations**

Jim Adams, COE, shared current conditions information: Lower Granite tailwater temperatures were around 65 degrees and had remained consistently below criteria. The Ice Harbor tailwater average was 69.3 degrees, and Anatone water temperatures were trending downward. Dworshak outflow temperatures ranged from 48.5-49 degrees and the project was releasing about 7.7 kcfs outflows, utilizing the big unit in undershot mode and a small unit in overshot. The project was just below 1530'.

Given projected forecasts and recommendations from the Dworshak Board, the COE planned to reduce outflows to 5.5 kcfs on 9/9 or 9/10 and operate the project to continue to meet desired temperature releases. The Dworshak Board was scheduled to meet on Friday, 9/7 to discuss guidance for the COE on how to operate the project to best manage for temperature.

#### **Lower Granite Pool MOP +1 to MOP +2 Operation**

Dave Hurson, COE, shared that Lower Granite is currently operating two holding tanks for Fall Chinook and maintaining pool elevations below MOP +1. An analysis of the project design showed that in order to operate additional tanks (there are six available), the pool elevation would need to be raised to between MOP +1 and MOP +2. Greg Haller, Nez Perce Tribe, responded that as they are not expecting a big return of Fall Chinook at this point, the Tribe recommended the COE continue to operate two tanks until after the Dworshak augmentation operation and then revisit the issue. Higher numbers of fall chinook were expected to arrive around September 17-20, which coincides with the planned end of the Dworshak augmentation operation. Oregon supported the Nez Perce recommendation. Idaho suggested that tracking fall chinook counts at Ice Harbor, given their 4-5 day travel time, would provide the region the opportunity to make changes at Lower Granite when high numbers of fish are observed. NOAA said they would consider elevating the Lower Granite pool if more than 500 fish were observed per day, to provide more holding space. Additional options for providing

space could also be explored, e.g. using trucks. A final suggestion was made to make a change in the Fish Passage Plan to list “post-Dworshak augmentation operation” as a criteria for potentially changing MOP levels at Lower Granite – the current criteria lists a temperature trigger of 68 degrees.

### **2008 Water Management Plan**

Scott Boyd, COE, reported that no comments had yet been received on the draft WMP. Comments are due by the end of September. It was noted that few changes were made from the 2007 version, and that any changes resulting from a new BiOp would likely be added to the Spring/Summer Update.

### **Autumn Treaty Fishing**

Kyle Dittmer, CRITFC, gave TMT a heads up that an SOR for fall fishing would be submitted later this week, and likely weekly for the month of September. CRITFC has also been sponsoring net flights over the past few weeks, with a total count of 469 nets and the majority located at Bonneville.

### **Operations Review**

*Reservoirs* – Libby was at elevation 2438.4’, operating 5.6 kcfs in and 9 kcfs out. The August 31 elevation was 2438.94’. The COE’s current plan was to reduce outflows to 6 kcfs around September 15 and hold through the remainder of the month. (It was noted that this operation plan has not been finalized.) Albeni Falls was at elevation 2062.34’ and would likely begin to draft around September 15. Dworshak was at elevation 1529.26’, with .6 kcfs inflows and 7.8 kcfs outflows. The August 31 elevation at the project was 1533.46’. The seven-day average flows were 21.9 kcfs at Lower Granite and 122.1 kcfs at McNary. Pool elevations at Snake River projects were up slightly and supportive of safe navigation. Grand Coulee was at elevation 1278.5’ and reached its target elevation on August 31, as did Banks Lake. Hungry Horse was at elevation 3541.54’ and operating 2.5 kcfs out.

*Fish* – Subyearling counts at Lower Snake projects were less than 100 indicating the end of the migration season. Fall chinook counts at Bonneville were averaging 5,000-6,000 per day, with a total of 67,000. Steelhead numbers were around 2,000-3,000 and totaled 267,000 to date.

*Power system* – Robyn Mackay, BPA, shared that with cooler temperatures, the system is running well. She thanked TMT members for being available for the emergency TMT call last week. She said that no stage 2 emergency was declared by the Los Angeles Department of Water and Power and no action was taken by BPA. A question was asked about the rolling blackouts that occurred in California, and Robyn responded that this was due to local equipment failure and that no relief could be (or was) provided by BPA.

*Water quality* – Nothing to report.

### **Little Goose Doble Testing**

Don Faulkner, COE, per the previous TMT discussion on this issue, reported that operators would not be able to perform doble testing at night due to safety issues, but did offer to do testing during staggered hours to be the least disruptive to fish passage. This would require four days of testing instead of three. The current plan is to begin doble testing on October 9.

**ACTION:** The salmon managers said they would discuss this option during their next FPAC call and respond to the COE ASAP.

### **Next Meeting, September 26**

An agenda will be developed for the meeting in the next few weeks. TMT also has a placeholder for a conference call on September 19 as needed.

**Columbia River Regional Forum  
Technical Management Team Conference Call  
September 5, 2007**

**1. Introduction**

Today's conference call was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (D.S. Consulting), with representatives from COE, CRITFC, BPA, the Nez Perce Tribe, BOR, NOAA, Oregon and Idaho 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**

The official minutes from the August 29 TMT call have been posted for TMT review. The facilitator's notes for the August 29 and 30 calls and the official minutes for August 30 will be posted shortly. This topic will be on the agenda at the next TMT meeting September 26, or on September 19 if a call is needed.

**3. Dworshak Operations**

The daily average tailwater temperature at Lower Granite is 64.5 degrees F and has been consistently less than 65 degrees F since the beginning of September, Jim Adams (COE) said. The daily average tailwater temperature at Ice Harbor is 69.3 degrees F, making it the only lower Snake River project above criteria. Temperatures at Anatone gage are still above 70 degrees but trending downward. Dworshak outflow temperatures have been 48.5-49 degrees F and steadily increasing. Outflows are still at 7.7-8 kcfs, with the big unit in undershot mode and the small unit in overshot mode. The pool elevation was just below 1,530 feet yesterday.

The COE has attempted to predict outflow temperatures when the operation shifts to 5.5 kcfs outflows on around September 9 as previously discussed at TMT. If it is assumed that the temperature of water coming through the big turbine in undershot mode to be approximately 44-45 degrees F, then the temperature of water coming through the smaller unit in overshot mode should be approximately 60 degrees F. The large unit will be in undershot mode when the shift occurs. The COE might be able to operate two units (the big unit and one small unit) at a low flow rate and achieve 5.5-5.6 kcfs outflows combining a blend of waters to yield an overall water temperature of around 50 degrees F. Adams said he will investigate this possibility.

Greg Haller (Nez Perce) said he'll seek feedback from the Dworshak board on that approach. Dave Wills (USFWS) asked, what unit operation would be needed to achieve this temperature? Adams estimated that operation of a

single unit in undershot mode would release temperatures of 44-45 degrees F, based on existing flows. This estimate was based on a comparison of thermocline data from this year to what occurred last year, and that underflow operations last year yielded temperatures of approximately 47.5 degrees F. Current thermocline data indicates that water temperatures in the Dworshak forebay at the elevation of withdrawal are about 2-3 degrees F less than they were in 2006. Wills and Adams agreed that temperatures around 48-50 degrees F would be preferable for the hatchery's needs, that anything close to 60 degrees would be unacceptable, and 44-45 degrees F would be acceptable but not first choice. Haller will email the COE regarding this decision after the Dworshak board meets on September 6. Meanwhile, Adams will look into the possibility of blending waters to achieve temperatures around 50 degrees F.

The operations plan, based on STP modeling, parallels what the Dworshak board said. The COE will start ramping outflows down to 5.5 kcfs beginning around September 9 until the forebay elevation reaches 1521 feet, for five days, then switch to a single-unit operation with outflows of 2.3 kcfs for one to three days until the pool elevation reaches 1,520 feet. At that point outflows will drop to minimum flows (about 1.6 kcfs). There will be TMT updates as this operation progresses.

#### ***4. Lower Granite Pool MOP+1 to MOP+2 Operation***

Dave Hurson (COE) gave an update on the fish holding tank situation at Lower Granite. Initially there were two tanks, and this year four more were added, each a third bigger than the initial tanks. All the water for the trap comes out of a pipeline at the end of the fish ladder, which opens and closes with the forebay elevation to maintain flows of about 75 cfs down the ladder. That equals between 1 and 1.3 feet of water going over the weir and ladder itself, or a minimum elevation of 734.5 feet, which translates to MOP+1 or MOP+1.5 over minimum operating pool. Last year when this situation arose, the COE wanted to add a criterion to the fish passage plan saying how to operate the tanks, which was reviewed and approved by agencies. It says that two small tanks can be operated even if they impact the amount of water coming down the ladder. The current elevation is below MOP+1, or about 0.95 feet of water over the weir. With four tanks running, the elevation will continue to drop. The COE can operate the two tanks at the current elevation and stay within criteria, but if WDFW wants to trap more fish, the pool elevation will need to be raised in order to operate the tanks.

Operating just the two smaller tanks should be sufficient for the Nez Perce Tribe's needs, as the run size probably won't be large this year, Greg Haller (NPT) said. The tribe would prefer to wait a few weeks for flow augmentation from Dworshak than raise the pool elevation now. Haller and Hurson agreed that there are alternatives to operating more than two tanks if the numbers of fish increase, including collection and transport to the hatcheries when passage rates

get high. This need could be predicted in advance using passage numbers at Ice Harbor to predict run sizes 4-5 days ahead of their arrival at Lower Granite. The peak fall Chinook run is typically September 17-20, Paul Wagner (NOAA) said. The peak number of fish per day in September 2006 was 385 fish.

There was no objection to operating only two fish tanks until Dworshak augmentation flows end. Then TMT will revisit the issue and decide whether more tanks are needed to provide adequate holding space. Passage numbers of more than 500 fish per day will serve as a trigger for TMT to consider alternatives (e.g. increasing the holding capacity for these fish by raising forebay operations to MOP+1 to MOP+2, MOP operations, providing trucking, or devising other alternatives). With the September flow augmentation program in place, Haller suggested adding a new criterion to the fish passage plan saying the pool elevation will be raised after flow augmentation has taken place. TMT will continue to monitor this and revise plans as needed.

### ***5. 2008 Draft Water Management Plan***

Scott Boyd (COE) asked TMT members to review the draft WMP and send him their comments by the end of September. He also wants to hear from commenter's who think the plan is fine as is. The WMP will, for the time being, continue to be based on the Plan of Action included in the 2004 Bi-Op. When a new Bi-Op is issued this fall, the WMP (probably the spring/summer update) will be revised accordingly.

### ***6. Autumn Treaty Fishing***

The tribes will meet tomorrow afternoon, September 6, in their third week of treaty fishing operations, Kyle Dittmer (CRITFC) reported. There will be an initial three-week fishery in August, followed by one-week fisheries based on run sizes. The summer fishing season ends July 31 and fall season begins August 1. Dittmer will send the SOR regarding treaty fishing operations to TMT members on September 6. He asked TMT members to call him if they have questions after reviewing the SOR.

### ***7. Operations Review***

**a. Reservoirs.** Libby is at elevation 2,438.4 feet, with inflows of 5.6 kcfs and outflows of 9 kcfs. The plan is to continue releasing outflows of 9 kcfs until September 14-15, then ramp down to 6 kcfs outflows for the rest of the month. Montana and BPA are still discussing this operation.

Albeni Falls is at elevation 2,062.34 at the Hope gage, with inflows of 7.8 kcfs and outflows of 9.49 kcfs. This elevation has been at that level for quite a while and will remain so until around September 15, when the COE will begin to draw the reservoir down based on inflow forecasts.

Dworshak forebay is at elevation 1529.26 feet, with inflows of 0.6 kcfs and outflows of 7.8 kcfs. The 7-day inflow average at Lower Granite is 21.9 kcfs. The 7-day inflow average at McNary is 122.1 kcfs. Little Goose is at elevation 634.95 feet, which is about a foot above the minimum elevation. Lower Monumental is at elevation 538.2 feet, which is about 1.2 feet above the minimum elevation. Ice Harbor is at elevation 439.71 feet, about 2 feet above the minimum elevation.

Hungry Horse is at elevation 3541.54 feet with current discharges at approximately 2.5 kcfs to meet the Columbia Falls minimum flow of 3.5 kcfs. Grand Coulee is at elevation 1278.5 feet and reached the target elevation of 1,278 feet on August 31. The target elevation of 1,565 feet at Banks Lake was achieved on August 31.

**b. Fish.** Passage numbers of subyearling Chinook at lower Snake River projects is quite low, Wagner said. Fewer than 100 fish per day are passing Lower Granite, and passage indices at Little Goose are in the upper teens, at Lower Monumental, less than 10 fish per day. McNary is passing a few thousand fish per day.

Fall Chinook passage at Bonneville Dam remains around 5-6,000 fish per day. Steelhead passage at Bonneville has risen from a few thousand per day to nearly 267,000 fish per day.

**c. Power System.** BPA thanked the TMT for gathering for the unscheduled TMT call so quickly. Temperatures have cooled considerably since the August 30 unscheduled call regarding a possible power shortage in California, Robyn MacKay (BPA) said. A Stage II NERC alert never materialized, as reported to TMT in a follow-up email August 31. Los Angeles has since experienced rolling brownouts, but these were due mostly to local equipment failure, not a shortage of power.

**d. Water Quality.** Spill ended August 31, Adams reported, and TDG levels in the river are low. Elevations at midnight on August 31 were 2,438.94 feet at Libby reservoir and 1,533.46 feet at Dworshak reservoir.

## ***8. Little Goose Doble Testing***

The doble testing scheduled for mid-October at Little Goose can't be completed at night because of safety issues, Don Faulkner (COE) reported. At its last regular meeting, TMT members considered the possibility of having the work done at night to avoid peak steelhead migration times. An alternative to that schedule would be holding off for the first 3-4 hours of the day to allow for better migration conditions, then starting the testing around 9 or 10 am, Faulkner said. This option would extend the testing schedule for another day, for a total of four days instead of the three days initially proposed.

Russ Kiefer (Idaho) suggested this testing schedule be referred to FPAC for further consideration at its next meeting September 11. After that meeting, FPAC will share its recommendation with Jim Adams, who will keep TMT informed of the testing process via email.

### **9. Next Meetings**

The next TMT meeting will be in person on September 26. There will be a possible TMT call September 19 to discuss Lower Granite MOP operations. This summary prepared by consultant and writer Pat Vivian.

<b>Name</b>	<b>Affiliation</b>
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Scott Boyd	COE
Kyle Dittmer	CRITFC
Robyn MacKay	BPA
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