

**TECHNICAL MANAGEMENT TEAM  
MEETING NOTES  
June 30, 2004  
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM  
HOUSE  
PORTLAND, OREGON**

FACILITATOR’S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Robin Harkless

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.

**Libby Operations:**

Cindy Henriksen, COE, reported that outflows at Libby decreased from 16 kcfs to 12.5 kcfs, per discussions at last week’s TMT meeting. Libby is now above elevation 2445’.

**Dworshak:**

In response to discussions last week, the COE provided a graph of the quantity of cold water available through the summer from Dworshak. The graph suggests that there should be a sufficient amount of cold water this year. TMT members looked at other graphs provided by the COE and CRITFC – all can be found as attachments to today’s agenda. The COE noted that using more generating units provides more flexibility and control of temperatures because water can be drawn from different strata. CRITFC provided a graph of observed 2003 average temperatures and effects on modeling, per a request from Montana. Current temperatures at Lower Granite are higher than previously expected, roughly 19° C.

**SOR 2004-16:**

The salmon managers put together SOR 2004-16 based on data from CRITFC, Dworshak elevations, temperatures, forecasts, operations from previous years, etc. The salmon managers requested the following operation: ramp Dworshak up from 6.8 to 7.2 kcfs this afternoon (6/30) and hold through 7/5. Then, ramp the project up to 10 kcfs through 7/7 and discuss operations at the next TMT meeting. The request put forth was intended to strike a balance between the needs of everyone in the region.

Dave Statler, Nez Perce, reported that fall chinook are currently rearing: 766 wild and 86 yearlings have been observed in the lower Clearwater. Paul Wagner, NOAA, clarified that the use of “BiOp” operations in the graphs and discussions is intended as a ‘bookend’.

The COE acknowledged that many agencies signed on to the SOR, and agreed to do their best to get to 45°. In the future, the COE would prefer more notice to plan and coordinate the operation. BPA also agreed to the request, and also prefers more notice from the salmon managers.

**ACTION:** The salmon managers are hoping to craft a longer term request for Dworshak operations next week, and will try to give more heads up if expecting a change on July 7<sup>th</sup>. In the meantime, the COE will plan to hold the project at full powerhouse (~10 kcfs – it was clarified that full powerhouse is slightly less than 10 kcfs, as written in the SOR), and will hold this operation through Friday, 7/9 (instead of 7/7). The salmon managers present at today’s meeting agreed to this.

**SOR 2004 – C6:**

CRITFC requested the following operations to accommodate a treaty fishery from June 30<sup>th</sup> at 6am through July 2<sup>nd</sup> at 6pm: Hold the pools at Bonneville, The Dalles and John Day within one foot of full. 103,000 adult Chinook and 115,000 sockeye total numbers are estimated, so there are good harvest opportunities for the tribes at this time. The net locations are as follows: 34% at Bonneville; 23% at The Dalles; and 43% at John Day.

**ACTION:**

The COE issued a teletype to BPA to operate a 1.5’ range at Bonneville as a hard constraint. The Dalles will operate to meet power needs but generally does not fluctuate. John Day will operate at a 1.5’ range, from 262.5-264.

**The Dalles Spill:**

Divers, during a four-hour outage at The Dalles, found some erosion but not enough to raise concerns for the integrity of the spill apron. So, the conference call scheduled to follow-up on this issue on Monday, 6/28, was cancelled. The COE will continue with current operations at The Dalles.

**System Status:**

*Reservoirs:* Libby inflows are just above 23 kcfs and dropping; Hungry Horse is at elevation 3559.75’, at full elevation. 5.7 kcfs will be released through the weekend, and then outflows will lower to 5.3 kcfs. Grand Coulee is at elevation 1286.7’ and releasing 14.6 kcfs. Milner will release 1500 cfs on July 9<sup>th</sup> for flow augmentation. Total volumes for August will be known on July 1<sup>st</sup>. A Brownlee agreement has been reached between Idaho Power and BPA. 100 total kaf will be provided in July as mitigation for curtailed spill.

*Fish status:* Subyearlings are passing Lower Granite at a steady rate of over 20,000. Numbers are higher at Lower Granite than previous years. A very large number of Hanford Reach production subyearlings are passing McNary, about 500,000/day. 59,000 adult chinook have been observed since June 1<sup>st</sup>, which is similar to previous years.

*Water quality:* Laura Hamilton, COE, reported that exceedances at McNary have been temperature-related. Additional water quality information can be found on the TMT web page as attachments to the agenda(s).

**Next Meeting, July 7, 9:00 am:**

**Agenda Items:**

- Dworshak operations
- Zone Six Treaty Fishery

## ***1. Greeting and Introductions***

The June 30 Technical Management Team meeting was chaired by Cindy Henriksen of the Corps and facilitated by Robin Harkless. The following is a distillation, not a verbatim transcript, of items discussed at the meeting and actions taken. Anyone with questions or comments about these minutes should call Henriksen at 503/808-3945.

## ***2. Libby Operations.***

Henriksen said Libby outflow was reduced from 16 Kcfs to 12.5 Kcfs on Sunday night, June 26. The reservoir is at about elevation 2445 feet, currently, and filling very slowly.

## ***3. Dworshak Summer Operations.***

Henriksen reviewed the most recent Corps analysis of the volume of cold water available from Dworshak this summer; this information is available via hotlink from today's agenda on the TMT homepage. She said the Corps had modeled three scenarios; under the first, Dworshak would reach elevation 1520 by August 31; under the second, Dworshak would not reach elevation 1520 until September 15; under the third, Dworshak would release a flat 10 Kcfs from the first week in July through the end of September (no spill operation) and reach elevation 1520 by the third week in September. Under the first (BiOp) scenario, Dworshak would release 14 Kcfs from July 5 through August 31; under the second (NPT/Idaho Plan), Dworshak would gradually ramp up to 14 Kcfs through the last week in July, hold that flow volume through the third week in August, then gradually ramp down to 3.7 Kcfs by the second week in September.

Under both scenarios, the Corps anticipates that an outflow water temperature of 46-48 degrees can be maintained for the duration of the operation. Henriksen noted that, the more generating units that are being operated at Dworshak, the greater the ability to control outflow temperature at the project. The group devoted a few minutes of discussion to the logistics of controlling outflow temperature from Dworshak.

The discussion then moved on to the modeled water temperature impacts of the three Dworshak operational scenarios. Kyle Martin said that, according to his analysis, the Nez Perce/Idaho plan would result in somewhat higher water temperatures early in the season and lower water temperatures through August and early September. The BPA plan would result in lower water temperatures in July, slightly higher temperatures in August, and lower temperatures in September.

Henriksen said water temperatures are currently about 19.3 degrees C in the Lower Granite tailwater. It was noted that air temperatures in the Lower Granite area are currently moderating, and will continue to cool for the next few days. Dworshak is currently releasing 2.2 Kcfs; the project is at 1599.5, almost full, with inflows of 5.7 Kcfs.

On June 29, the action agencies received SOR 2004-16. This SOR, supported by USFWS, IDFG, ODFW, WDFW, NOAA Fisheries, The Nez Perce and Shoshone-

Bannock Tribes and CRITFC, requests the following specific operations: On Wednesday afternoon, June 30, ramp Dworshak outflows up to between 6.8 and 7.2 Kcfs, maintain through July 5. On July 6, further increase outflows to 10 Kcfs through July 7. Target 45 degree outflow water temperature through July 7.

Wills provided an overview of the SOR, the full text of which is available via hotlink from today's agenda on the TMT homepage. Why the ramp-up -- why don't the salmon managers want to immediately go to 10 Kcfs? Jim Litchfield asked. Because we were trying to consider the Nez Perce/Idaho position, and wanted to avoid releasing too much cold water too soon for the wild/natural fall chinook rearing in the Clearwater downstream of Dworshak, Wills replied. The average fork length of those fish is 63 mm, Dave Statler added; we need to ensure that they get adequate thermal units to continue to grow toward smoltification.

Henriksen said the Corps appreciates the fact that all of the salmon managers have endorsed this SOR. She said the Corps will go to a two-unit operation beginning today and will begin to ramp temperatures down to 45 degrees. She added, however, that it may be logistically difficult to implement the SOR by this afternoon, given the late timing of its submission. We understand, said Wills; he asked that the Corps implement the SOR as soon as feasible. It should be possible to achieve the requested outflow by this afternoon, said Henriksen, and we will do our best to meet the temperature provisions. Henriksen and John Wellschlagler asked that, in the future, the salmon managers attempt to submit SORs meant for immediate implementation somewhat earlier, if possible.

In response to a question from Harkless, Wills said the salmon managers are working on a longer-term Dworshak SOR, which will be submitted next Wednesday. In response to a question from Scott Bettin, Russ Kiefer said the Dworshak operation after July 7 will depend on the water temperature situation at Lower Granite – if it remains cooler, the request will likely be to maintain Dworshak outflow at 10 Kcfs; if water temperatures continue to increase, it is likely that the request will be to increase Dworshak outflow to 14 Kcfs. In response to another question, Wills said the intent of the 10 Kcfs request is to operate Dworshak at full powerhouse capacity. When asked about the temperature of the water being released from Dworshak, Statler said he would like to see cool water released, but not so cool as to negatively impact the growth of fish in the Clearwater River. Statler said he preferred the Dworshak outflow temperature be no lower than 45 degrees. After a few minutes of additional discussion, it was agreed that the action agencies should plan to hold 10 Kcfs Dworshak outflow through next Friday, July 9, at temperatures as low as 45 degrees, unless water temperatures in the Lower Granite tailrace rise significantly in the interim.

#### ***4. Zone 6 Treaty Fishery.***

On June 28, CRITFC submitted SOR 2004 C-6. This SOR, in support of the second summer 2004 treaty fishery, requests the following specific operations:

- Beginning June 30 at 6 a.m. and ending at 6 p.m. on July 2:
- Bonneville pool: operate the pool within 1 foot from full pool (msl elevation 76.5-75.5)

- The Dalles (Celilo) pool: operate the pool within 1 foot from full pool (msl elevation 159.5-158.5)
- John Day pool: operate the pool within 1 foot from full pool (msl elevation 264.5-263.5)

Martin went briefly through the contents of this SOR, the full text of which is available via hotlink from the TMT homepage. Martin said CRITFC's aerial net survey revealed that, during last week's treaty fishery, 69, 48 and 88 nets were placed in Bonneville, The Dalles and John Day pools, respectively. He added that, if tribal fishers catch the expected number of fish, this will be the last summer treaty fishery of 2004.

Henriksen said the Corps has issued its usual teletype to Bonneville, imposing a hard pool elevation constraint of 75-76.5 feet at that project; John Day is operating from 262.5-264; The Dalles pool typically fluctuates very little at this point in the season. Again, she said, we specify in the teletype that the goal of this operation is to minimize wear and tear on the nets.

#### ***5. Update on The Dalles Spill Outage.***

Henriksen said the diver survey took place as scheduled at The Dalles on Monday; the divers found some erosion on the spillway apron, but not enough to raise structural concerns about the dam. The Corps saw no need to change spill operations this summer; spill at The Dalles continues through six bays, she said. The bottom line is that the erosion problem doesn't seem to be an issue this year, she said.

#### ***6. Status of Operation.***

Libby is 13 feet from full, with inflows at 23.6 Kcfs and falling, said Henriksen. Mary Mellema said Hungry Horse is at elevation 3559.5, essentially full. The project has been releasing 5.7 Kcfs and will continue to do so through this weekend, at which point outflow will be reduced to 5.3 Kcfs. Grand Coulee is at 1287 feet; Upper Snake flow augmentation will begin on July 9, with 1.5 Kcfs being released above Milner. A total Upper Snake volume of 40-60 kaf is expected to be available in 2004. We should know the total volume by the end of this week, she said.

Day-average flow at Lower Granite was 38 Kcfs yesterday, said Henriksen; it may increase to 40 Kcfs over the weekend, but flows are generally receding in the Snake. Wellschlager said Brownlee will be releasing 100 kaf during the month of July as part of the summer spill package; he said he does not know what the release temperature of that water will be. He added that an official announcement has not yet been made on the action agencies' summer spill proposal; the proposal is currently under review by NOAA Fisheries, and a decision is expected next week. The water from Brownlee will be released regardless; the current water temperature at Oxbow dam, one project upstream of the Hells Canyon complex, is currently 63 degrees.

With respect to the status of the outmigration, Wagner said the main action is still in subyearlings. The subyearling index has been in the 20,000-30,000 range over the past week. At McNary, the numbers are an order of magnitude larger, because of the Hanford

Reach fall chinook; yesterday's index was more than 427,000 fish. Historic passage at Lower Granite is tracking well ahead of pre-season projections; it is near the lower end of the predicted passage curve at McNary. Bettin noted that 60 million fall chinook smolts are predicted from the Hanford Reach this year, double the 2003 count. With respect to adult passage, 59, 920 summer chinook have passed Bonneville to date, in the middle range of the counts for the last four years.

Wellschalger said there are no power system problems to report at this time. Laura Hamilton said there have been a number of water temperature-related TDG exceedences at McNary over the past week; the Corps has documented water temperature swings of up to 9 degrees in a single day.

**7. Next TMT Meeting Date.**

The next meeting of the Technical Management Team was set for Wednesday, July 7. Meeting summary prepared by Jeff Kuechle.

**TMT Participant List**

**June 30, 2004**

<b>Name</b>	<b>Affiliation</b>
Robin Harkless	Facilitation Team
Cindy Henriksen	COE
Russ George	WMCI
John Wellschlager	BPA
Scott Bettin	BPA
Mike O'Bryant	CBB
Kyle Martin	CRITFC
Scott Boyd	COE
Tina Lundell	COE
David Benner	FPC
Laura Hamilton	COE
Ken Corum	PNUCC
Kevin Nordt	PGE
Tom Haymaker	PNGC
Jim Litchfield	Montana
Paul Wagner	NOAAF

Rudd Turner	COE
Mary Mellema	USBR
Greg Haller	Montana
Dave Statler	NPT
Mike Buchko	Powerex
Dan Bedbury	EWEB
Martin Hatscher	SCL
Lance Elias	PPM
Richelle Beck	D. Rohr & Assoc.
Russ Kiefer	IDFG