

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES
July 21, 2004
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM
HOUSE
PORTLAND, OREGON**

FACILITATOR’S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

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.

Dworshak Operations:

Cindy Henriksen, COE, reported that TMT had settled on a strategy for Dworshak and the COE has been releasing 11.6 kcfs/day out to maintain tailwater temperatures at or below 68°. Current outflow temperatures (available as an attachment to today’s agenda) show that temperatures have remained below 68° at the Lower Granite tailrace, so the COE will continue with the current operation and plan to do so through the end of August. Kyle Martin, CRITFC, provided additional handouts showing observed and modeled temperatures to date at Lower Granite and Peck.

ACTION: The salmon managers will continue to monitor temperatures in the tailwater and, if need be, call an emergency TMT meeting to discuss a change in operation to accommodate the temperature needs.

Zone 6 Treaty Fishery:

Kyle Martin, CRITFC, presented SOR 2004-C7 and 2004-C8 with requests for tribal summer fisheries for July 14-17, July 21-24, and July 26-31. The request was to operate the John Day, Bonneville and The Dalles pools at a steady elevation, within 1’ from full. The July 1 net survey observed 171 nets, and the fishers seem to prefer the John Day pool for summer fisheries.

The COE and BPA expressed that lead time on the request has been an issue this time, and would prefer 24 hours’ notice in order to try to meet the request. Kyle acknowledged this. He will report to his tribal Council members that for the July 26-31 request, which starts on a Monday, the COE will likely start with a lower pool due to expected power needs from the forecasted heat wave. The COE will then slowly fill to attempt to implement the tribes’ request. Cindy LeFleur, WDFW, noted that there will be opportunity to give more heads up to operators for the Fall tribal fishery, which is likely to begin the week after August 20. A suggestion was made for Kyle to begin talking to field staff in order to develop the Fall fishery request.

Lower Granite Powerhouse Outage:

Cindy Henriksen reminded the group that there will be a powerhouse outage at Lower Granite August 16th-19th for double testing. One unit will be operated at speed/ no load; spill will occur over the spillway to meet powerhouse minimums during the daytime only. Cindy asked TMT to consider: If the total river flow is greater than 40 kcfs in the Snake River, should the COE operate outside MOP? And, should the COE use the RSW for spill if necessary?

The salmon managers met and discussed the questions, and prefer not to operate outside MOP+2, but to pass inflow through the RSW in the unlikely event that river flows are greater than 40 kcfs.

Libby/Hungry Horse Operations:

Paul Wagner, NOAA, recapped that the request for Libby and Hungry Horse operations presented by Montana last week was elevated to IT and then the Regional Executives. An official decision was made on Monday, July 19 by NOAA Fisheries to hold the discharge at Libby at 12.5 kcfs and Hungry Horse at 5.1 kcfs. This will provide some water into the system in September and meet some of Montana's expressed interests. Tony Norris, BOR, reported that the BOR had increased Hungry Horse to 5.7 and will ramp down to 5.1 sometime today.

A question was raised about whether NOAA had considered that the extra water would potentially be 'trapped' in Canada in September. The COE responded that it is likely that the water will be trapped in Kootenay Lake and there will not be a swap agreement with Canada this year. Paul Wagner said NOAA had considered this. An estimated 113 kaf will come out of Libby in September with this new operation, based on yesterday's STP runs. The total expected decrease from this operation is an 1800 cfs reduction in flows.

NOAA recognized that there is not a consensus in the region on Libby and Hungry Horse operations, so proposed a symposium to discuss the science around the issue – including NOAA's "Effects" memo, The National Academy of Sciences report, ISAB information, and others. This will provide an opportunity for a broader airing of the issue and greater policy review. NOAA's Science Center will take the lead in coordinating the workshop. This will not influence operations for this year.

Spring/Summer Update:

In response to the COE's decision to stop spill in August, the summer spill appendix draft update was handed out and posted on the TMT web page. It updates information about the end of summer spill at the Lower Columbia projects in August and notes the hydro offsets. This is an update to the Water Management Plan.

Status of Operations:

Reservoirs: Libby is at elevation 2450' and filling. Outflows are at 12.5 kcfs. Hungry Horse is at elevation 3556.4' with outflows at 5.7 kcfs – the BOR will ramp down to 5.1 kcfs per NOAA's decision on the Montana proposal (see above). Grand Coulee is at elevation 1287.6' with ~ 70 kcfs inflows. The BOR provided a summary of Snake River flow augmentation, and will provide a general accounting of volume in/volume out analysis in August when summer operations are complete. Oregon will review past post-

season reviews and notify the BOR if there is additional data that would be helpful this year in the review. Brownlee is at elevation 2068' and releasing ~33 kaf/week. Dworshak is at elevation 1584', 16' from full. Temperatures at Dworshak are 45° and water temperatures are being monitored to not exceed 68° at the Lower Granite tailrace.

Fish status: Subyearling chinook at Lower Granite reached their peak and are on the decline. About 4,000/day are passing the project at this point. Numbers at McNary are lower than predicted, due to a number of factors. Tagged fall chinook in the Snake River appeared in late May and peaked around June 27 – 121 fish were observed that day. The adult summer chinook run is nearly over; about 70,000-100,000 fish were observed this year. Sockeye numbers were 100,000-120,000. Steelhead numbers look good so far. August 1st starts the fall season. The forecast for fall chinook is ~635,000.

ACTION: Cindy LeFleur, WDFW, will provide information on fisheries, fish runs by species, and other information to TMT via handouts and the TMT web page. Dave Wills, USFWS, will provide information on sturgeon at the next TMT meeting.

Power System: Loads are expected to come up with increases in temperatures forecasted for the near future.

Water quality: There were some TDG exceedances in the McNary forebay on the Oregon side due to TDG coming from upstream and increased temperatures. An instrumental error at Camas/Washougal caused a couple exceedances.

A graph was provided with average spill per day for the last two weeks.

Next Meeting, Wednesday, August 4th, 9am-noon:

Agenda Items:

- Fall Fisheries, Fish Run Finals – WDFW
- Sturgeon Update – USFWS
- Dworshak Temperatures, Operations Update
- Tribal Summer Fishery Review – CRITFC
- Libby/Hungry Horse Operations Update
- Status of Spill
- System Operations Status

1. Greeting and Introductions

The July 21 Technical Management Team meeting was chaired by Cindy Henriksen of the Corps and facilitated by Donna Silverberg. 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. Dworshak Summer Operations.

Henriksen said the summer operational strategy at Dworshak was set last meeting; the project continues to release 11.6 Kcfs, in an effort to keep Lower Granite tailwater temperatures at or below 68 degrees F. She noted that the most recent temperature readings from the Lower Granite tailwater fixed monitoring station are hot-linked to today's agenda on the TMT homepage; so far, water temperatures remain below 68 degrees. Dworshak will continue to release 11.6 Kcfs until early August, at which point outflow will be reduced to just under 10 Kcfs, full powerhouse capacity. David Wills noted that water temperatures are creeping upward at the Lower Granite tailwater station, and a conference call may be needed to adjust the Dworshak operation if they continue to do so. That was our understanding when we agreed to this operation, said Henriksen. Kyle Martin noted that air temperatures in the Lewiston area are expected to be about 10 degrees (F) cooler in the coming week than they were last week, which may help moderate water temperatures at Lower Granite somewhat. It was agreed that a conference call may be needed this Friday.

3. Zone 6 Treaty Fishery.

On July 13 and July 20, the Corps received CRITFC SORs covering lower river operations during the summer treaty fishery. The SORs covered three periods of fishing: 6 a.m. July 14 through 6 p.m. July 17, 6 a.m. July 21 through 6 p.m. July 24, and 6 a.m. July 26 through 6 p.m. July 31. As always, the CRITFC tribal treaty fishery SORs requested that Bonneville, The Dalles (Celilo) and John Day pools be operated within one foot of full pool.

Martin said he is sure this will be the last summer tribal treaty fishery SOR for 2004. He noted that, during a July 1 aerial survey, CRITFC personnel counted 271 nets -- 31% in Bonneville pool, 24% in The Dalles pool, and 45% in John Day pool. During the July 15 aerial survey, a total of 161 nets were seen, 31% in Bonneville pool, 29% in The Dalles pool and 40% in John Day pool.

Henriksen said the Corps has been having some problems with lead time on some of the CRITFC SORs; when the request is received too late in the day, she said, it can be difficult to accommodate these requests. She added that next week's fishery is for the entire week; on Monday, July 26, we may be starting the day with Bonneville pool on the low side, and filling over the day -- that's normal after weekend operation, she said. That's fine, as long as it's a gradual fill, Martin replied. The Corps will do its best to honor the tribes' request, Henriksen said. Again, a bit more lead time will really help us to implement your SORs, said John Wellschlager -- giving us less than 24 hours' notice is essentially setting us up for failure, in terms of being able to implement your requests. I understand, said Martin, adding that the reason for the late notice is generally the fact that tribal treaty fisheries must be negotiated among four tribal entities.

Have you analyzed the ESA impacts of the tribal treaty fishery? Jim Litchfield asked. The tribes are allowed a 7% incidental take on listed species, said Cindy LeFleur -- at this time, the only listed adult species in-river are Snake River sockeye and steelhead. On the chinook side, the only fish currently in the river are Upper Columbia summer chinook, which are not listed, LeFleur said. She asked for as much notice as possible regarding any potential fall tribal fisheries, which could begin as soon as the week of

August 20. That would help everyone to meet your requests, said Wellschlager. I will communicate that to our tribal people, Martin replied.

Henriksen said a teletype has gone out specifying 75-76.5 feet as a hard constraint at Bonneville pool. At the other projects the operating ranges have been elevation 262.5-264 at John Day pool and the normal 3-foot operating range at The Dalles pool, where fluctuation is often only 2-feet.

4. Lower Granite Powerhouse Outage August 16-19.

Henriksen reminded the group that, at the last TMT meeting, the salmon managers were asked to discuss the various operational options for the period of August 16-19, when the Lower Granite powerhouse will be offline from 7 a.m. to 5 p.m. for double testing. She said that, during the test period, Lower Granite will pass the Snake River minimum flow of 11 Kcfs during daylight hours (5 Kcfs speed-no-load, 6 Kcfs spill). We wanted some guidance as to how to pass that flow, she said; were the salmon managers able to reach a consensus on the type of operation you would like to see?

Our preference is to pass the 6 Kcfs of spill through the RSW during the day, replied Dave Wills; we would prefer not to pond, to the greatest extent possible. We're anticipating that, as long as total river flow is below 40 Kcfs, Lower Granite pool will fill about one foot, from MOP +1 to MOP +2, during the day; we would need to pass that water out at night, Henriksen said. Wills added that, in the unlikely event that total river flow exceeds 40 Kcfs during the testing period, the salmon managers would prefer that the Corps not pond above MOP +2, but instead pass the excess flow during the day, via spill. Ron Boyce said ODFW concurs with that suggested operation. How much volume is there in one foot of Lower Granite storage? Boyce asked. It's about 5 ksf, Henriksen replied, adding that the Corps is willing to implement the salmon managers' requested operation.

5. Update on Libby/Hungry Horse Operations.

Henriksen said that, on July 19, the Corps issued a letter of response on Montana's SOR 2004 MT-2, covering requested summer operations at Libby and Hungry Horse dams this summer. The full text of this letter is hot-linked to today's agenda on the TMT homepage. Paul Wagner reminded the group that this issue was elevated from TMT to IT; the IT was unable to resolve it, so it was elevated last week to the Regional Executives. The issue was not resolved by the end of the Regional Executives call, he said, but they did promise a decision as soon as possible. We now have that decision, he said; it is to hold Libby's current discharge of 12.5 Kcfs as long as possible, until elevation 2439 is achieved. It now appears that this will occur in the first week of September. The same decision was made at Hungry Horse, said Wagner; the current discharge of 5.7 Kcfs will be reduced to 5.1 Kcfs and held until elevation 3540 is achieved.

This may result in some water being trapped in Kootenay Lake and in Lake Roosevelt, said Wagner; discussions have been ongoing to see that this does not happen. It would be nice to know how those negotiations are proceeding, he said. So NOAA

Fisheries recognizes the fact that flows will be lower, as a result of this decision, at McNary during July and August? Henriksen asked. Yes, Wagner replied. There will be no agreement with Canada, she said, because we're just planning to hold 12.5 Kcfs during July and August – there is no incentive for Canada to sign such an agreement. Most, if not all, of the additional water released during September will be trapped in the Canadian portion of the system, said Wellschlager – I just wanted to be sure you understand that. We understand that, Wagner replied, adding that he would like to verify that the trapping does occur, when we get to September.

Wills said that, based on his calculations, a total of 113 kaf of Libby storage will be released in September, under this operation. In other words, he said, that is the volume by which lower river flows will be reduced prior to August 31. Wagner said the operation is expected to result in a 1.8 Kcfs reduction in lower river flows during July and August. Norris said Hungry Horse discharge will be ramped down to 5.1 Kcfs as soon as possible; he said Reclamation estimates that there will be about a foot of Hungry Horse storage remaining above 3540 on August 31.

Wagner said NOAA Fisheries recognizes that there is still some disagreement, around the region, on the state of the science on this issue. NOAA has therefore proposed a one- or two-day workshop or symposium on this issue, at which the science will be presented and the validity of this operation will be debated. This symposium would include representatives from NOAA, the Council, the states and tribes, and will be convened as soon as practicable. The symposium will not impact 2004 operations at Libby and Hungry Horse? Henriksen asked. No – the 2004 operation has already been determined, Wagner replied.

6. Spring/Summer Update.

Henriksen said the action agencies have issued a draft revision of the 2004 Water Management Plan, called the spill appendix, which summarizes the action agencies' decision to curtail summer spill at the Lower Columbia projects, as well as the hydrologic offset measures that will be implemented. She asked the TMT to review the revised update and provide any comments they may have to her as soon as possible.

7. Status of Operation.

Henriksen said Libby continues to release 12.5 Kcfs; the current elevation at the project is just over 2450, nine feet from full. Inflows have been slightly higher than expected. Hungry Horse is currently at elevation 3556.4, said Tony Norris; the project is releasing 5.7 Kcfs, which will be ramped down to 5.1 Kcfs later today or tomorrow. Grand Coulee is at elevation 1287, releasing 70 Kcfs, with 87 Kcfs inflow. Norris also distributed a summary of 2004 and previous years' Upper Snake flow augmentation volumes; he noted that a total of 335 kaf is expected to be available for summer flow augmentation this year. In response to a question from Boyce, Norris said the data on Brownlee inflows and outflows during the Upper Snake flow augmentation period is publicly available via the Reclamation website. Norris said he will provide such a Brownlee volume in/volume out analysis once the 2004 Upper Snake flow augmentation operation is completed in August. And will all of the Upper Snake water be passed

through Brownlee in 2004? Boyce asked. Yes, except for the volume that was released in June, Norris replied.

Henriksen noted that one of the water management offsets for the 2004 summer spill reduction was an agreement between Bonneville and Idaho Power to release an additional 100 kaf from Brownlee in July. The agreement is that the volume is to be released, at a rate of 33 kaf per week, between July 7 and July 28. Brownlee is releasing 14-15 Kcfs, currently, Henriksen said. Wellschlager noted that what the agreement actually bought was assurance that the 100 kaf will be released, not necessarily that additional water would be released.

The current Dworshak elevation is 1584 feet, 16 feet from full and drafting, 45 degrees outflow temperature, releasing about 11.5 Kcfs, 2 Kcfs of which is spill, said Henriksen.

On the fish front, Wagner said the peak of the subyearling chinook run has now passed at Lower Granite; indices at that project are now down to 4,100-fish-per-day range. Subyearlings continue to arrive at the lower river projects, with an index of 25,000+ yesterday at McNary. Moving on, Wagner touched on Billy Connor's PIT-tagged wild Snake River subyearling chinook research; according to Connor's data, the peak of this outmigration occurred on June 27, somewhat earlier than normal. The 95% passage point in the 2004 wild subyearling outmigration is forecast to occur on August 7. Overall, the timing of the subyearling outmigration appears to have moved somewhat earlier in the season since 1993, Wagner observed. Cumulative subyearling chinook passage at Lower Granite is now approaching 1 million fish for 2004; at McNary, about 7 million fish. Wagner noted that the latter figure is significantly below the pre-season projections for McNary.

With respect to 2004 adult passage, LeFleur said the summer chinook run is now almost over, and will total 95,000-100,000. The sockeye run is about 120,000 fish, another very good run. The adult steelhead run also looks significantly better than average in 2004, said LeFleur. She noted that the Compact will be meeting soon to establish harvest levels for the fall season; she said she will update the TMT on adult count and fisheries data as more information becomes available. The adult fall chinook run is forecast to exceed 635,000 fish in 2004, down slightly from last year's record run of 880,000 adult fall chinook, but still a very good run; the 2004 coho run is forecast to be about 250,000 fish. In response to a request from Litchfield, Wills said he will provide an update on 2004 sturgeon activities at the next TMT meeting.

Wellschlager said there are no power system issues to report at this time; the weather continues to be hot, and loads high. On the water quality front, Jim Adams said the Corps recorded a few TDG and water temperature exceedences in the past two weeks, including water temperatures of 75 degrees at the McNary forebay monitoring station on July 18. Laura Hamilton said the Corps has recorded up to a 9-degrees F jump in McNary water temperatures over a 24-hour period, which also results in elevated TDG levels. In response to a question, Rudd Turner said project personnel have observed no fish quality problems at McNary as a result of these warm temperatures. Hamilton also provided a chart showing average daily spill volumes for the period July 5-18:

Ice Harbor: 31.5 Kcfs
 John Day: 45.2 Kcfs
 The Dalles: 59.6 Kcfs
 Bonneville: 74.4 Kcfs

8. Next TMT Meeting Date.

The next Technical management Team meeting was set for Wednesday, August 4.
 Meeting summary prepared by Jeff Kuechle.

TMT Attendance List

July 21, 2004

Name	Affiliation
Donna Silverberg	Facilitation Team
Robin Harkless	Facilitation Team
Cindy Henriksen	COE
Kyle Martin	CRITFC
Tina Lundell	COE
Tim Heizenrater	PPL
Rudd Turner	COE
Laura Hamilton	COE
David Wills	USFWS
Scott Boyd	COE
Mary Karen Scullion	COE
Ron Boyce	ODFW
Jim Litchfield	Montana
Lee Corum	PNUCC
Tony Norris	USBR
John Wellschlager	BPA
Tom Haymaker	PNGC
Paul Wagner	NOAAF
Cindy LeFleur	WDFW
Jim Adams	COE

Mike O'Bryant	CBB
David Benner	FPC
Kevin Nordt	PGE
Russ George	WMCI
Bruce MacKay	Consultant
Mike Buchko	Powerex
Lance Elias	PPL
Richelle Beck	D. Rohr & Associates
Todd Perry	CPS