

# **COLUMBIA RIVER REGIONAL FORUM**

## **TECHNICAL MANAGEMENT TEAM**

### **MEETING NOTES**

**May 21, 2003**

## **CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE PORTLAND, OREGON**

**TMT Internet Homepage: <http://www.nwd-wc.usace.army.mil/TMT/index.html>**

### **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.

#### **Vernita Bar/Priest Rapids Update:**

Chris Carlson reported on Priest Rapids operations for the last two weeks. The information is also posted on the TMT web site. Kyle Martin provided a handout of hourly flows and inquired about fluctuations on May 16. Chris said that Grand Coulee operations may have had an impact on flows at Hanford Reach.

Dave Wills briefly updated TMT on SOR 2003-7. He asked whether current operations of 135 kcfs at Priest Rapids could be continued through June 8; the Action Agency representatives agreed to continue the operation.

#### **Fish Spill Status and Tracking:**

Laura Hamilton reported eleven TDG exceedances from May 6-19. The handout she provided is also located on the TMT web site. Paul Wagner reported on his observations of the COE's spill tracking process. His observation was that, because of low flows, it is difficult to make quick adjustments. Many factors, including tests and temperature changes, affect spill levels. The COE and NOAA are communicating daily on spill changes; both agencies feel the process is working well. Washington agreed that TDG exceedances should be avoided, and appreciate the complexity of adjusting spill. TMT members are encouraged to observe the process. Dave Wills, USFWS, expressed an interest in observing.

#### **Tailwater Operations at Bonneville:**

Per discussions at last week's TMT meeting, and follow-up communication between Washington and the COE (summarized in an email on May 16), the hard constraint of 16.5' at the Bonneville tailwater was changed to a soft constraint on May 16, and the restriction was lifted at midnight on May 19. May 18 was the end of Chinook emergence. Ron Boyce requested that the Action Agencies be mindful that there have still been some

Chinook observed in the river. So far, elevations have been at 18-20', well above the former 16.5' constraint.

**Snake River Spill/ Transport:**

Paul Wagner reported that further studies from the NMFS Science Center on spill and transport indicate that this year, which is similar to the year 1999, it would be more beneficial to leave the fish in the river and spread the risk, rather than transport.

**Upcoming Sturgeon Operations at Libby:**

Dave Wills reported that the USFWS expects to present an SOR for sturgeon operations at Libby in the next two weeks (by the June 4 TMT meeting). The agency is waiting to observe whether natural spawning of the sturgeon occurs – if it does, the request will likely be to begin the pulse then, around June 9. If it does not occur, the likely request will be to use the water for hatchery fry, around the end of June/early July. Ultimately, 800 KAF will be requested. The COE will run a model to project refill at Libby. As of today, Rudd Turner said that there is a good probability that the request can be met. Dave will continue to coordinate with the COE on this issue – the sooner the COE has an indication of which operation will be requested, the better. A comment was made that, to avoid what occurred during last year's operations for sturgeon, it would be beneficial to move the water out sooner.

**Spring Treaty Fishery Summary:**

Kyle Martin reported on the April 23 - 26 spring treaty fishery and presented a handout that included statistics on operations. He reported that there were few fluctuations and that it was a 'good' fishery. The COE also presented information on operations for the fishery. Both reports can be found on the TMT web site.

Kyle reported that an SOR from CRITFC will be presented later today to the COE to begin a fishery the following day, for two and a half days, in order to harvest the remaining fish. CRITFC and the COE will coordinate on this.

It was noted that the FTP website no longer holds the most current COE modeling; folks are encouraged to look at the COE's "Data Query" site for the latest information.

**Current Conditions:**

*Fish migration status:* Paul Wagner reported that adults are nearing the end of their spring run. The cumulative number of smolts this year is high; out migration looks similar to that of 2002. Lower Granite steelhead numbers are not as high this year as past years, probably influenced by the RSW. Fish are still being observed in the tributaries. A big run of wild fish is expected to come from the tributaries.

*Reservoir operations:* Rudd Turner and Tony Norris reported on reservoir operations. Bonneville has been operating at 213-273 kcfs outflows; McNary is at 180-256 kcfs; and Lower Granite is slightly down from past weeks to 64-90 kcfs. Dworshak is at elevation 1561.4'. Outflows were reduced at Dworshak over the weekend to accommodate the Salmon Managers' request to spread out the water. Due to a rescue operation, Dworshak was operated at minimum flows for a while on Sunday, 5/18. Libby is at elevation

2420.0', filling about half a foot per day. Albeni Falls is refilling. Hungry Horse is at elevation 3527.4' and filling. An increase in flows from Columbia Falls to Hungry Horse is expected in the next week. Grand Coulee is at elevation 1269'.

*Power:* John Welschlager reported that the CGS is down for refueling, and that there should be no problem getting it back up to schedule.

### **SOR 2003-9 Update:**

The COE presented a ten-day model run for Dworshak operations, indicating that there is now a total of 50 ksf remaining. The COE again presented an alternative operation, which was presented at last week's TMT meeting. BPA suggested reducing spill some to save water for later in case the freshet does not occur when it is expected. Comments were made on Brownlee operations. Idaho was not represented at the meeting to confirm what operations at Brownlee will look like. The Salmon Managers also discussed alternative operations at Tuesday's FPAC meeting.

**ACTION:** The following operation was agreed to by TMT as a result of today's discussions and the model run/forecast:

- Continue spill at ~15 kcfs today; ramp down to 10 kcfs on 5/22 through 5/24; ramp down to 7.5 kcfs on 5/25 through 5/26; and ramp down to 1.5 kcfs on 5/27. Ramp downs will occur at midnight, the beginning of each day.
- Rudd Turner will contact Steve Pettit, who was not present at today's meeting, and share the decision on Dworshak operations agreed to today.

### **Next Meeting, June 4, 9am-noon:**

Agenda items:

- Vernita Bar
- Fish Spill Status and Tracking
- Priest Rapids Operations Update
- Dworshak Operations Update
- Spring Treaty Fishery Update
- Sturgeon Operations SOR
- Review Current Conditions

***\*\* NOTE: Ron Boyce and Shane Scott are coordinating a seining field trip for next Friday, May 30. Anyone interested in attending should contact Ron or Shane.***

## **Meeting Minutes**

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

The May 21, 2003 Technical Management Team meeting was chaired by Rudd Turner 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 Turner at 503/808-3935.

## ***2. Vernita Bar/Priest Rapids Update.***

Chris Carlson said that, for the week ending May 11, the average flow at Priest Rapids was 141.9 Kcfs; the flow band varied between 40 Kcfs and 60 Kcfs. The flow band was exceeded significantly on May 8 and May 11. During the week, a total of 29 subyearling chinook mortalities were found at 23 sample sites. For the week ending May 18, the average flow at Priest Rapids was 151.9 Kcfs; the flow band varied between 40 Kcfs to 60 Kcfs. The flow band was exceeded significantly only on May 13. Index seining found only one subyearling chinook mortality at the 13 sites sampled for the week.

The only other thing I have is that, based on the temperature units from the end of emergence, the fish have now accumulated 200 of the 400 CTUs needed, so we are now halfway through this operation, Carlson said.

With respect to SOR 2003-7, Davis Wills said his understanding was that the Corps and Bonneville would be targeting 135 Kcfs at Priest Rapids, but actual flows were higher than that target last week. Flows have been much closer to the target over the past several days, Turner replied. John Wellschlager, BPA, added that it should be possible to continue the current Grand Coulee/Priest Rapids operation for the next two weeks, through June 8. It was so agreed.

## ***3. Fish Spill Status and Tracking.***

Laura Hamilton drew the group's attention to the Corps' most recent exceedence tracking handout, for the week ending May 19. She noted that there were a total of 11 exceedences for that period, seven of which were at Ice Harbor, two at McNary and two at Camas/Washougal. All of the exceedences were Type 6, due to uncertainties when using best professional judgment in applying spill guidance criteria. Hamilton then moved on to average 24-hour spill data by project for the week; she noted that low river flows in the Snake and fish testing requirements limited spill volumes at many of these projects. Average spill at the Lower Columbia projects varied between 58.4 Kcfs at John Day to 119.7 Kcfs at Bonneville, again due to low total river flows and fish tests.

Paul Wagner provided a brief report on his visit to the RCC during the spill regulation process for three days last week; he likened the experience to steering a very unresponsive ship with a very loose tiller connection. Travel time, temperature changes and testing requirements are all complicating factors, he said; in general, you need a real feel for the system to do this job. People are watching this daily, he said, and we have set up a communications process that allows us to review these changes on a daily basis. Overall, however, NOAA Fisheries is comfortable with the way the Corps conducts this process, Wagner said. Any other TMT members who are interested are welcome to come see what we do, Turner added; please contact me or Jim Adams. Dave Wills said he would be interesting in coming over to RCC and seeing the work.

Shane Scott said WDFW has received some very critical comments from WDOE for signing the recent spill letter; exceeding water quality parameters is something we definitely do not want to do, he said, and we appreciate the work the Corps has done to be responsive on this issue.

#### ***4. Update on Bonneville Tailwater Operations.***

Turner said the action agencies had asked the salmon managers to confirm May 15 as the official end of the Lower Columbia chum emergence period. The salmon managers provided that confirmation, as well as some additional information about chinook emergence. With respect to the chinook, said Turner, they are not an ESA-listed species, so we're not under a BiOp obligation to do anything for them; however, we decided to ease off the tailwater restriction gradually. The Corps went to a soft constraint on the 16.5-foot Bonneville tailwater depth on May 16, he explained, then lifted the soft constraint on May 19. Bonneville tailwater depth stayed in the 18-20 foot range during this period.

Boyce said that field crews are still seeing some juvenile chinook in the Ives/Pierce Island area; he asked that, if possible, the action agencies continue the 16.5-foot tailwater depth as a soft constraint. Turner replied that, with Memorial Day weekend coming up, flows through the system will likely be low for at least a few days; flows at Bonneville fell to 170 Kcfs last night. In response to a question, however, John Wellschlager said Bonneville models show flows will likely be in the 240 Kcfs range over the coming weekend. It sounds like we should be OK, said Boyce; I just wanted you to be aware of this. We do not want this operation to impact operations for listed species, Boyce added.

We'll just leave this alone, then, said Turner; it shouldn't be a problem. Flows are expected to pick up next week, he added. Boyce noted that there has been stranding observed at the Ives/Pierce Island complex when Bonneville flows are in the 220 Kcfs-240 Kcfs range; he asked that flow fluctuations be minimized to the extent possible while flows are in this range. Wellschlager replied that, according to Bonneville forecasts, flow fluctuations should be no more than 2 Kcfs per day over the weekend.

#### ***5. Snake River Spill/Transport Criteria.***

Wagner said he has asked the NMFS Science Center to put together some additional information about how non-transported Snake River fish do as the season progresses. What we saw was that, in general, based on the 1998 data, for wild chinook, SARs generally declined as the season progressed; it doesn't look real good for non-transported fish after May 1, Wagner said.

However, flows were fairly high through the season in 1998, Wagner said; the question is, how did fish do in a year that more closely approximates the conditions we're seeing this year? In 1999, when conditions were fairly similar to 1998, in-river fish relatively well through the season. The bottom line is that NOAA Fisheries is comfortable recommending that the action agencies not go to maximum transportation at this point, Wagner said; rather, we recommend that the Corps continue with a spread-the-

risk approach for this year. Conditions to date in the season are quite similar in 2003 compared to where they were at this point in 1999, he added; hopefully we'll soon see a freshet on par with what we saw in 1999 as well.

#### ***6. Upcoming Sturgeon Operations at Libby.***

Wills said he had spoken with Bob Hallock; he said the Fish and Wildlife Service plans to develop an SOR for the next TMT on June 4 covering the 2003 Libby sturgeon operation. We're waiting to see if the natural sturgeon spawning takes place this year, he said; the sturgeon folks are monitoring the spawning activities of the adult sturgeon outplanted above Bonners Ferry, and if spawning occurs, it is expected to begin around June 9. It could be a little earlier, or it could be a little later, he said.

If spawning does occur, we would like to begin the sturgeon operation at that point; it would consist of an additional 22 Kcfs from Libby for 18 days, Wills said. If spawning doesn't work, we would like to put that 800 KAF on the release of the hatchery sturgeon fry beginning around July 1. So this is a real-time operation, and the decision will be made based on field observations of natural spawning? Wagner asked. That's correct, Wills replied. The earlier we know, the better, said Turner. We'll look for the Fish and Wildlife Service SOR on June 4, said Harkless.

#### ***7. Summary of Spring Treaty Fishery.***

Kyle Martin distributed a memo titled "Impact of Pool Fluctuations on the 2003 Spring Treaty Fishery." He noted that SOR 2003 C-1 requested that the action agencies maintain pool elevations at Bonneville, The Dalles and John Day within a one-foot elevation range during the fishery; the Corps replied with a commitment to a 1.5-foot operating range in Bonneville pool only. He noted that there is an ongoing disagreement between CRITFC and the Corps about what actually constitutes full pool at Bonneville; CRITFC says it is 77 feet, while the Corps says it is 76.5 feet.

Overall, said Martin, Bonneville Pool was in compliance with CRITFC's requested range 43% of the time this fishing season; Celilo (The Dalles) pool, 44% of the time, and John Day pool 15% of the time. The three pools were in compliance with the Corps' 1.5-foot operating range 77%-100% of the time. The take-home message is that, although we submitted the SOR on short notice, the fishery was still reasonable, said Martin. Tribal fishers reported no major problems, he added.

Martin added that CRITFC will be submitting another SOR covering a second fishery beginning tomorrow morning at 6 a.m. and ending Saturday, May 24 at 6 p.m. This will be the last spring fishery, he said; we will be requesting the same pool stability operation as before – one-foot operating ranges at all three pools. The Corps and BPA will make their best effort to provide stable pools, said Turner; if we have a problem, we'll call CRITFC. He added that, according to the hourly gauge data the Corps uses, the pools were within the requested elevation range during the entire period of the last treaty fishery. The data are from a forebay gage at the Bonneville spillway, which is the one the project uses as the official gage for operating. Martin agreed to redo his analyses of this and previous tribal fisheries using data from this gage. It is also good to hear that

there were no major problems reported, Turner said. So CRITFC and the Corps will coordinate the implementation of the new SOR when it is received? Harkless asked. Correct, Martin replied – I'll submit it later this afternoon.

### ***8. Current System Conditions.***

With respect to adult passage at Bonneville, Wagner reported that the run to date is in excess of 179,000 fish, significantly larger than the pre-season estimate. Adult passage is now on the decline, and we are entering the jack season, he said – about 12,000 jacks have passed Bonneville to date, which is greater than any recent year except 2000 and 2001. Moving on to smolt data, Wagner said the yearling chinook passage index of 3.2 million fish at Lower Granite is larger than the indices in 2000, 2001 or 2001, although it does not meet pre-season estimates. There are still a large number of fish waiting for the freshet, added Chris Ross; we're still expecting to see roughly twice as many wild outmigrants in 2003 as we saw in 2002.

The picture for steelhead is not as rosy, said Wagner; indices are only about half of what we saw at Lower Granite in 2000 and 2001. However, the operation of the RSW in 2002 and 2003 may be influencing the index numbers for those years. He noted that both the steelhead and chinook indices at Little Goose Dam downstream of Lower Granite support this theory. In general, said Wagner, the 2003 chinook and steelhead outmigration is still in progress -- our biologists tell us there are still a large number of wild juveniles waiting in the tributaries for the freshet to begin, so the outmigration is far from over.

Moving on to reservoir operations, Turner said yesterday's average flow at Bonneville Dam was 227 Kcfs, and ranged between 213 Kcfs and 273 Kcfs over the past week. Average flow at McNary was 216 Kcfs yesterday, and ranged between 180 Kcfs and 256 Kcfs over the past week. Average flow at Lower Granite was 72 Kcfs yesterday, and ranged between 64 Kcfs and 90 Kcfs over the past week. Lower Granite's Day-average hit 89.7 Kcfs on May 17, Turner said. Dworshak elevation is now 1561.4 feet; the project drafted six feet over the past two weeks, with inflows in the 10 Kcfs-13 Kcfs range and outflows of 15.5 Kcfs.

On Friday, May 16, with the forecast showing flows in the 90 Kcfs range over the weekend at Lower Granite, we decided to save some water at Dworshak, Turner said; we ramped down to full powerhouse capacity (10 Kcfs) on Friday evening. On Saturday, the project told RCC that the local sheriff's office reported a vehicle going into the Clearwater; they requested minimum Dworshak outflow from 7 a.m.-3 p.m. to attempt a recovery operation. We then ramped back up to 15 Kcfs outflow from Dworshak by 8 p.m. on Sunday, Turner said. And that's what caused you to miss the Lower Granite flow target on Sunday and Monday? Boyce asked. Yes – Lower Granite's average flow fell to about 83 Kcfs during that period, Turner replied.

Turner reported that the current elevation at Libby is 2420 feet, with 4 Kcfs out and 10.4 Kcfs inflow yesterday. The project filled 7 feet over the past two weeks. He said Albeni Falls is at elevation 2055.8 feet, on refill trajectory, releasing 35-38 Kcfs. Tony Norris reported that Hungry Horse is at elevation 3527.4 and filling, releasing 4.4 Kcfs

during the week, and 2.3 Kcfs on the weekend. We're expecting Hungry Horse inflows to rise dramatically, to the 18 Kcfs range over the next week, he added. Grand Coulee is at elevation 1269 feet, currently, Norris said.

With respect to the power system, there is nothing unusual to report, said Wellschlager, except that the Columbia Generating Station is still down for maintenance. They're a bit behind schedule but confident they can make up that time, Wellschlager said. According to the May final forecast, we're at 84% and 86% of normal water supply at The Dalles and Lower Granite, respectively, Turner added. The forecast is improving, but 2003 is still shaping up to be a below-average water year, he said.

Turner then touched on the Corps' most recent volume histograms for Dworshak, Libby and Hungry Horse. Yesterday there were 75 Ksfd of available flow augmentation volume at Dworshak, assuming a 50% confidence of refill at that project, Turner said; at 15 Kcfs outflow, that gives us approximately five days left at that flow. In other words, Turner said, we should consider ramping down Dworshak outflow later this week.

Turner also touched on the most recent volume histogram information for Libby; again assuming a 50% confidence of refill by July 31, as well as an 800 KAF sturgeon pulse, we would have approximately 564 KAF or 284 ksf available for July flow augmentation from Libby, he said. That would be in addition to the 20 feet that is normally drafted from Libby during August, Turner added. If we attempt to refill Libby by June 30, however, there would be no water available for flow augmentation from Libby in June, Turner said. He added that, at a 50% refill confidence, there will be approximately 297 KAF (150 ksf) available for flow augmentation from Hungry Horse this summer.

#### ***9. SOR 2003-9 (Dworshak Operations) Update.***

The current plan is to run with 15 Kcfs outflow at Dworshak through this Friday, May 23, then begin ramping down, Turner said. Is that still what we want to do? At last week's TMT meeting, he said, we discussed one potential rampdown scenario: to drop Dworshak outflow to 10.5 Kcfs on Saturday, May 24, to 7.5 Kcfs on Sunday, May 25, to 3.5 Kcfs on Monday, May 26, to 1.5 by midnight Tuesday, May 27. We're showing 17 Kcfs-18 Kcfs from Hells Canyon through the weekend, then 17 Kcfs-19 Kcfs next week, Turner said. We're looking at flows in the mid-70 Kcfs range at Lower Granite next week, then a flow peak that should bring us to over 100 Kcfs on Sunday, Monday and Tuesday, June 1-2-3, despite the fact that Dworshak will be at minimum outflow by then, Turner said. Dworshak will then need to be on minimum outflow through June 30 in order to refill, Turner added.

He noted, however, that all of this assumes that actual flows will closely mirror the forecast; if you want to hedge your bets a little, we might want to start ramping down sooner and extend the period of high Dworshak outflow for an extra day or two, Turner said.

After a few minutes of discussion, the TMT recommended the following operation: reduce Dworshak outflow to full powerhouse capacity (10 Kcfs), eliminating

spill at that project beginning tonight at midnight, then releasing 10 Kcfs through midnight, May 24. Dworshak discharge will then be reduced to 7.5 Kcfs on May 25 and May 26, and to 1.5 Kcfs by midnight that day. Turner said he will coordinate this operation with Steve Pettit to be sure IDFG has no objection. [Turner called Pettit later that day and left him a voice mail message.]

**10. New System Operational Requests.**

No new SORs were submitted prior to today's meeting.

**11. Recommended Operations.**

Recommended operations were covered earlier in today's agenda.

**12. Next TMT Meeting Date.**

The next meeting of the Technical Management Team was set for Wednesday, June 4. Meeting summary prepared by Jeff Kuechle.

Shane Scott	WDFW
Rudd Turner	COE
John Wellschlager	BPA
Ron Boyce	ODFW
Robin Harkless	DS Consulting
David Wills	USFWS
Paul Wagner	NOAA Fisheries
Tony Norris	BOR
Chris Ross	NOAA Fisheries
Kyle Martin	CRITFC
Dave Statler	Nez Perce Tribe
Jim Adams	COE
Mary Karen Scullion	COE
Scott Boyd	COE
Laura Hamilton	COE
Beck	
Cradell	
Beam	
Heizenrater	
George	
Burris	
Benner	
Traeger	
Filardo	
Carlson	
Bill Rudolph	
Le	
Martin Hatcher, SCL	
Haymaker	

Butchko