

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM MEETING NOTES

June 13, 2002

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

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

1. Greeting and Introductions

The June 13 Technical Management Team meeting was chaired by Cathy Hlebechuk of the Corps. 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 Cathy Hlebechuk at 503/808-3942.

2. Hanford Reach Update.

No Hanford Reach update was presented at today's meeting.

3. Weather Update.

Dan Macusiewicz of the River Forecast Center said that, over the next three days, little or no precipitation is expected in the Columbia Basin. Record temperatures are being reported across the basin, with freezing levels in the 11,000-13,000-foot range. Above-normal temperatures are expected across the Northwest today. We could get some scattered showers or thunderstorms beginning tonight, Macusiewicz said, but by Friday the weather is expected to dry out again. There may be some scattered showers and thunderstorms on Saturday, but temperatures will moderate.

The early part of next week is characterized by varying forecasts, Macusiewicz said; in general, there is a chance of showers across the northern part of the basin on Monday and Tuesday, with a chance of thunderstorms as the system pushes inward over the course of the week. Over the next two weeks, it looks as though below-normal precipitation and normal temperatures will prevail. Seasonally, it appears that precipitation will be somewhat below normal this summer.

Dave Westnedge reported that the runoff response to the current hot weather has been good; although no flooding is anticipated, there could be several rivers in a bank-full condition on the east side of the Cascades well into next week. We don't expect inflows to exceed previous peaks except in the B.C. portion of the Columbia mainstem, Westnedge said. We should see up to 50 Kcfs inflow to Libby by this weekend; in the Clearwater Basin, there isn't a huge amount of snow left in the mountains, he added.

With respect to the water supply forecast, said Westnedge, in the Upper Columbia, the forecast has increased, but to the south, in the Snake River Basin, we're seeing a decline over the past few months. The Clearwater/Dworshak forecast has stayed more or less constant since January, as has the forecast at The Dalles, where the forecast is in the mid-90% of average range. At Lower Granite, the June final forecast for January - July is 23 MAF, or 77% of average.

4. Snake River Water Update.

In response to a question raised at a previous TMT meeting by Ron Boyce, Tony Norris provided a brief presentation about how Upper Snake flow augmentation water is typically routed through Brownlee Reservoir. Norris put up a series of overheads, noting that Idaho Power Company has a commitment to ensure that Reclamation's water gets out in a timely fashion. Norris provided a graph plotting cumulative daily storage in Brownlee against the cumulative volume passing Brownlee, for the period June 1-August 30, 1998. A second graph showed the same information for 1999, when Brownlee did not refill until late June. What this shows, essentially, is that the Upper Snake storage water does come out of Brownlee, Norris said.

What happened historically is pretty straightforward, said Boyce; the question was, what is the planned operation at Brownlee, given the fact that we have only 300 KAF of Upper Snake flow augmentation volume to work with this year? Idaho Power's operation does not vary from year to year, Norris replied – the water will still pass the project in much the same way. We do not have a shaping agreement this year; that option is not available to us, he said. But the timing of the release of the Upper Snake water is critical to salmon, Boyce said. I'm not sure what else you want to hear, said Norris – IPC will fill Brownlee, and will pass inflow until they start to draft the reservoir for power later this summer. John Bowling agreed that this is the case – Brownlee is now full, and will begin to draft in late July or early August, when the weather heats up and power prices increase.

How much of the Upper Snake water can we draft during July? Boyce asked. Absent a shaping agreement, none, until the weather starts to heat up, Norris replied – that's something that will have to be solved at a policy level, not at TMT. Boyce expressed profound frustration with this state of affairs. In response to a question, Norris said he can bring other graphs showing how Brownlee has been operated during years when there was no shaping agreement in place.

Bowling clarified Idaho Power's planned operation by saying that they hope to keep Brownlee full through all of July, if possible, then begin drafting in August. He added that Idaho Power did call Bonneville to discuss a 2002 shaping agreement, but that Bonneville elected to table that discussion, saying they are not interested in entering into a shaping agreement this year. Our plan, therefore, is to keep Brownlee full as long as possible, to avoid having to buy high-priced energy in August, said Bowling. Hlebechuk noted that it would be highly unusual if Idaho Power did not draft Brownlee at all in July.

In response to a question, Bettin said that, because a BPA/IPC shaping agreement is not required under the 2000 Biological Opinion, Bonneville does not feel obligated to negotiate one this year. Actually, said Paul Wagner, NMFS and BPA are still negotiating on that issue; a 2002 shaping agreement isn't completely off the table yet.

5. Idaho Power Operations Update.

This topic was covered during the previous agenda item.

6. Chum Emergence End Date.

Boyce said that, due to staffing reductions, he will not be able to provide the date of the end of 2002 chum fry emergence until the next TMT meeting. Shane Scott said that, with respect to recently-rehabilitated Duncan Creek, five miles downstream from Bonneville Dam, about 20 spawning pairs of chum were placed in the new spawning habitat. Field personnel have recently collected several thousand fry from that area, so the rehabilitated spawning area in Duncan Creek was conducive to successful spawning this year. We'll have a final report out detailing all of the chum spawning activity in 2001/2002 as soon as possible, Scott said. The sooner, the better, said Bettin.

7. Lower Columbia Adult Migration Study.

This agenda item was deferred until a future TMT meeting.

8. Comments on FCRPS Emergency Action List.

Hlebechuk noted that this list has been posted to the TMT homepage. Chris Ross said FPAC has talked about the list somewhat, but has not finalized its comments; we're proposing to finalize it at next week's meeting, he said. Conceptually, our feeling is that there need to be seasonal lists, because there are different priorities in spring, summer, fall and winter, said Ross. During the summer, for example, the first priority might be drafting storage reservoirs more steeply to meet load during a power system emergency. Bettin noted that the BiOp specifies ramp rates at various projects; he said some projects may not be available for instantaneous outflow increases. It's a coordination issue, he said, but I agree that season priority lists make sense.

We also wanted to discuss the possibility of going to overload at run-of-the-river projects, said Ross, with operation outside 1% happening first at projects where the fewest fish are present. There may be a little bit of incremental capacity to be had through that operation, but most of the gain is at McNary and Bonneville, which are already on the list, Rudd Turner said. We have also talked about reducing spill first at the projects where the fewest fish are present, said Ross, adding that the salmon managers appreciate the fact that they need to provide their emergency action list recommendations as soon as possible, in case anything happens.

Bettin noted that this list is intended for the use of dispatchers, who must deal with a problem that arises suddenly, often in the middle of the night. By the next morning, he said, if the emergency persists, we can convene an emergency TMT conference call to develop a more refined operation, but this prioritized list is intended for use during the short term only, after BPA has bought as much energy as possible and drafted Grand Coulee as hard as possible. Again, said Ross, we'll try to finalize the salmon managers' recommended summer emergency

action list by next week. In response to a question from Boyce, Bettin said he will provide ballpark estimates of how much additional generation will result from each of the measures on the current emergency list. He added that, until the summer priority list is finalized, the current list will remain in force.

9. Review of Current System Conditions.

Paul Wagner said that, with respect to the current status of the fish migration, there are two new memos regarding changes to the indices on the FPC homepage, which would be worth the TMT's time to read.

Yearling chinook indices are now on the wane, said Wagner, down to a few thousand per day at Lower Granite. A similar pattern holds sway at Little Goose and John Day. By the same token, subyearling chinook indices are on the rise at the Lower Snake projects, McNary and John Day. A similar pattern is true of steelhead yearlings and subyearlings, Wagner said, with yearling indices falling and subyearling indices on the rise at most projects.

In terms of the season as a whole, said Wagner, yearling chinook passage at the Lower Snake projects is right on the FPC's pre-season estimate for this date. He noted that the memos explain that while indices were lower than expected at Lower Granite (due to the spill provided and the effective operation of the RSW), the indices were right on what was forecast at Little Goose, the next project downstream. Bettin requested that the FPC include a brief but detailed explanation of exactly how this came about in their annual report, given the salmon managers' urgent requests earlier in this season for additional flows from Grand Coulee because of the delayed runoff and its presumed detrimental effects on outmigration success in 2002.

Wagner noted that yearling chinook passage at Rock Island and McNary did not meet pre-season expectations in 2002. With respect to steelhead passage at Rock Island, actual passage has far exceeded the pre-season forecast, which was a pleasant surprise, given the heavy hit this stock took in 2001, Wagner said.

Moving on to daily passage indices at Bonneville, Wagner said the run was somewhat later and more protracted than expected in 2002. At Lower Granite, the yearling chinook and steelhead daily indices are on the wane, while subyearling daily indices are on the rise, Wagner said – the bottom line is that the juvenile outmigration is definitely not over at Lower Granite. Boyce noted that wild juveniles from the Upper Grande Ronde are still being collected in ODFW's trap; obviously, he said, protecting the fish at the tail end of the migration is as important as protecting those at the peak of the migration.

Wagner noted that adult spring chinook passage has now slowed to a crawl. A total of 296,477 spring chinook passed Bonneville this year; about 67,000 passed Lower Granite. About 3,000 summer chinook continue to pass Bonneville daily, he added. This year's jack chinook count was 7,782 at Bonneville, nowhere near the 23,871 and 16,816 seen in 2000 and 2001, respectively, but still well in excess of the 10-year average. Wagner added that more than 46,000 wild steelhead passed Lower Granite in 2001, up from an average of about 10,000 in 1998 and 1999.

With respect to project operations, Hlebechuk said Lower Granite released 75 Kcfs yesterday, down from about 107 Kcfs over the weekend. At McNary, flows continue to be above the spring seasonal flow objective of 246 Kcfs; the day average has exceeded 246 Kcfs every day since May 22. The average flow for the week ending June 16 is expected to be 316 Kcfs, Hlebechuk said. Libby has filled 8.5 feet over the past week, and is now at elevation 2432.7 feet; the project is releasing full powerhouse capacity of 26 Kcfs, an operation that began Tuesday, after we looked at the most recent forecast, Hlebechuk said.

Continuing on, she said Albeni Falls elevation is now 2060.88 feet; the project is drafting slightly. At Dworshak, we're at 1588.6 feet, up 15 feet over the past week, said Hlebechuk; yesterday, we increased project discharge to 7.5 Kcfs. We'll hold that until the weekend, then ramp down to minimum outflow, then back up again to 7.5 Kcfs on Monday, Hlebechuk said – we're watching that situation carefully. She added that IDFG had asked if the Corps could maintain flat outflows in support of the fishery below Dworshak; the Corps and IDFG discussed that operation, but we've been receiving all kinds of different flow requests for fishing – 1.5 Kcfs, 6 Kcfs, 10 Kcfs, she said. Fishing really isn't an authorized project purpose, said Hlebechuk; we do daily shaping both for power and to reduce spill in the Lower Snake over the weekend.

The only issue is holding a flat flow, whatever outflow you choose from Dworshak, Steve Pettit said -- it's a big issue. After a brief discussion, Hlebechuk said the Corps has pretty much decided that the above-described operation – 7.5 Kcfs Dworshak outflow during the week, 1.9 Kcfs Saturday and Sunday – is what it is going to do. She noted that the Corps does try to consider fishing in its operations, but again, that is not an authorized purpose – she said she worked very hard over the Memorial Day weekend to meet the Salmon Manager's May 20 – 27 week-average flow of 97 Kcfs. She said she could have simply held 10 kcfs (full load) at Dworshak for the entire weekend which would have resulted in even higher Lower Granite outflows. However, on Monday, May 27 (the Memorial Day holiday), she noted the 97 kcfs objective would be met even if Dworshak flows were reduced that day. Noting that the Dworshak Hatchery complex has felt a 6 kcfs outflow is good for fishing, she reduced flows that day to 5800 cfs. So the answer is no to our request to hold 6 Kcfs Dworshak outflow through the weekend? Pettit asked. That's correct, Hlebechuk replied – we'll be adjusting Dworshak outflow to ensure steady refill through the remainder of the month. In response to a question from Bettin, Pettit requested that the reduction from 7.5 Kcfs outflow to 1.9 Kcfs outflow take place at night. In response to a question from Pettit, Hlebechuk said the reason for this operation is to avoid premature refill and forced spill at Dworshak.

Boyce noted that it would have been preferable to have released some of the water that is now being released a month ago, when more fish were migrating through the system. Is the migration over now? Bettin asked. No, but there were more fish in the river then, said Boyce. Hlebechuk noted that, last month, the action agencies agreed to continue to release 10 Kcfs from Dworshak, even as the forecasts were indicating that refill could be a problem at Dworshak and Grand Coulee. Now we have too much water, and we're gassing up fish, Boyce said – hindsight obviously makes this discussion easier, but to me, refill was never an issue at either Grand Coulee or Dworshak. Can you show me on the FPC website where we're gassing up fish? Bettin

asked. We are exceeding the 120% TDG standard, Boyce said. I would agree with that, said Bettin. And I agree that hindsight makes this discussion simpler, said Jim Litchfield.

Hlebechuk went through the operations the action agencies agreed to earlier this spring to benefit migrating fish, including the maintenance of high outflows from Dworshak for as long as possible. I'm not sure what we could have done better, particularly with respect to Dworshak operations, she said. Hlebechuk added that many in the region tend to forget the importance of shape, in addition to volume, in the overall runoff picture. Even though this was a below-average runoff year, said Hlebechuk, we would have reached 22.5' on the Columbia River at Vancouver (six feet above flood stage) last week rather than the actual 11.7' peak elevation reached if we hadn't been able to use flood control storage. It can go either way, Litchfield agreed – this year, we happened to get a warm spike, and runoff volumes were higher, rather than lower, than expected.

Moving on, Norris said Grand Coulee was at elevation 1276.8 feet this morning. Grand Coulee spilled on June 7, 8 and 9. Hungry Horse was at 3541 feet this morning, and releasing 9.5 Kcfs (powerhouse capacity: 9 Kcfs) to avoid filling and spilling at that project. Inflows to the project are about 10.5 Kcfs and rising, he added. Bettin added that there are no problems to report in the power system, currently, although there were a couple of problems with the Southern California transmission lines last week; fires caused two lines to be de-rated. Those problems have now been fixed, he said.

Dick Cassidy noted that the system was operated to 125% TDG for more than a week when flows were peaking and the California transmission lines were being derated; it is now being operated to stay within 120% TDG. There are still a number of exceedences of the 120%/115% TDG standard ongoing, he said. We worked with NMFS to change the spill priority list, said Cassidy; it is now Bonneville first. As Tony mentioned, Grand Coulee also spilled this weekend, Cassidy added. In response to a question from Boyce, Bettin said the California transmission line derating caused TDG levels to rise by an average of perhaps 5% during the hours it persisted. Again, he said, that problem is over, at least until the next lightning strike. In response to another question, Cassidy said the Fish Passage Center has estimated that 5% of the fish sampled during the line derating showed Level 1 signs of gas bubble trauma. Bettin added that, thanks to the installation of flow deflectors, the spill cap at John Day has increased from 7 Kcfs in 1995 to up to 200 Kcfs today.

10. End of Spill at Collector Dams, Start of Full Transport at McNary.

Wagner noted that the BiOp says that full transport at McNary should begin when conditions are no longer spring-like – flows below 220 Kcfs, water temperatures of 17 degrees C or higher. We're no where near those conditions at this point, and probably won't be until July, he said. NMFS therefore feels that full transport at McNary should not begin for at least the next two weeks. With respect to the end of required spill at collector dams, said Wagner, we expect that uncontrolled spill will continue for some days yet. The question is, when can we lift the spill requirement at the collector dams? Bettin asked. June 20 is the planning date in the BiOp,

Wagner replied.

Turner expressed concern about the possibility that full transport at McNary might not begin until mid-July, if Wagner's predictions hold true. Turner noted that, although the SSARR does show that McNary flows are unlikely to fall below 220 Kcfs until the third week in July, water temperatures and, consequently, predator activity, are likely to increase before flows fall below 220 Kcfs at McNary. Wagner replied that NMFS and the other salmon managers will monitor the situation closely, and will bring their recommendations to TMT at the appropriate time.

It sounds, then, as though we will not begin full transport at McNary for at least the next two weeks, but that we will plan to end spill at the collector dams on June 20, Bettin said. Boyce said he would like to keep the question of ending spill at the collector dams on the table for the time being; we're still reviewing some of the relevant information, he said. Bettin noted that spill at the collector dams will continue; it is simply the 150 Kcfs requirement that would be lifted. So if we want to change that planned operation, we will need to submit an SOR? Boyce asked. Correct, Bettin replied.

With respect to the Snake River projects, said Wagner, as was mentioned earlier, the subyearling migration is on the rise, while yearling numbers are falling. He said that, given current conditions in the Snake River, NMFS is comfortable with ending the spill requirement at the Snake River collector projects on June 20 as well. Bettin said that, based upon the information he has seen this morning, with yearling passage indices being flat for the past week, he would prefer to end spill at the Snake river collector projects on Monday morning, June 17. Wagner replied that 6 a.m. June 20 would be his preference; it was so agreed.

11. Review of New System Operational Requests.

No new system operational requests were presented at today's meeting; Boyce reiterated that the salmon managers are working on their summer operations plan.

12. Recommended Operations.

For the period of June 17-30, we will operate the system to refill the projects and stay within the 120%/115% TDG standards, Hlebechuk said; the only significant change in planned operations is that we will end the spill requirement of 150 Kcfs at McNary at midnight, June 20, and 6 a.m. June 20 at Little Goose and Lower Granite.

13. Other

Corps Analysis of Bonneville Pool Fluctuations on 2002 Spring Treat Fishing

Rudd Turner handed out a sheet showing Corps computations fluctuations of the pool during the spring treaty fishing periods this year. The Corps data shows for the seven week fishing period, the 1.5 foot operational band requirement was met 96.2%, of the time one week,

98.2% of the time one week and 100% of the time for the remaining five week period. Rudd said he wasn't sure where CRITFIC was getting their data in their May 22 analysis which showed a much lower compliance percentage.

No spill Operation at The Dalles for Repair Work

Mike Langeslay of Walla Walla District Corps office requested a no spill operation at The Dalles on Friday, June 21 between 0900 – 1700 hours to replace a fish release hose for spillway control releases (fishery research work). TMT members approved the request.

Next TMT Meeting Date.

The next meeting of the Technical Management Team was set for Wednesday, June 26. Meeting summary prepared by Jeff Kuechle, BPA contractor.

TMT ATTENDANCE LIST

JUNE 13, 2002

Name	Affiliation
Colin Beam	PPM
Jennifer Bennett	BPA
Scott Bettin	BPA
John Bowling	Idaho Power Co.
Ron Boyce	ODFW
Mike Buchko	PowerX
Ruth Burris	PGE
Richard Cassidy	COE
Suzanne Cooper	BPA
Margaret Filardo	FPC
Russ George	Water Management Consultants Inc.
Laura Hamilton	COE
Scott Hanson	BPA
Richelle Harding	D. Rohr & Associates
Tim Heizenrader	UBS
Cathy Hlebechuk	COE
Mike Langeslay	COE

Jim Litchfield	Consultant (Montana)
Tom Lorz	CRITFC
Tony Norris	Reclamation
Mike O'Bryant	Columbia Basin Bulletin
Amy Reese	COE
Chris Ross	NMFS
Shane Scott	WDFW
Mary Scullion	COE
Glen Traeger	Avista Energy
Rudd Turner	COE
Paul Wagner	NMFS
Steven Wallace	PacifiCorp
Terry Weeks	PNGC
David Wills	USFWS