

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM MEETING NOTES

May 9, 2001

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 NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

The following notes are a summary of issues that are intended to point our 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.

Hanford Reach/Vernita Bar Update:

Flows were held at VB minimum through May 6. The policy group had a conference call and agreed to keep water up 5/9 and 5/10, with a downward ramp beginning Tuesday, 5/8.

Brownlee Operations:

BPA and Idaho Power were unable to reach agreement on a surging operation because the proposal involved in May instead of June. As it stands, Idaho Power will maintain minimum flows at Brownlee: 8200 cfs in May and down to 6500 for the second half of June.

Regarding BOR water: Idaho Power will pass any water the BOR releases, but is unable to shape that water for the regional system. The Snake River will be dry as early as 5/16 below Milner. BOR would like to begin releasing water soon.

Consensus: TMT members will request shaping of water released into Brownlee in a condensed (2-day) period so Lower Granite can pulse. This action would be tentatively scheduled for May 14 and 15, the trigger being an observed sharp rise in tributary flows. The BOR will release 230 cfs/day until Friday, then up to 1500; in the meantime, Pat McGrane will give the TMT shaping request to Idaho Power. The FWS need also to make a statement on possible mitigation obligations to snails.

Action: Pat McGrane will check about whether Idaho Power is willing to shape in May and recapture in June. Dave Wills will check about any possible problems with the snails. If any action is to be taken prior to the next TMT conference call, Paul Wagner will notify the COE and TMT for an emergency conference call.

Spill for Fish Passage:

TMT had recommended, at the Federal Executives request for input, to begin spill on 5/9 at 6 pm. BPA is working with other parties (Grant PUD's and upriver tribes) to establish a final resolution to the issue, which involves a swap. More on this issue at a later time.

Current System Conditions:

Operations: Nothing has changed from recent weeks except the ramping down of Vernita Bar flows, which began 5/8. SSARR is showing a projected migration peak May 15. The power system emergency continues.

Action: Kyle Martin expressed a need to double check with the RFC on the Dalles volume forecast. He will check on this and then email his findings to TMT members or give a report at next week's TMT call.

Lower Granite Spill Operation Proposal:

In response to salmon managers' input, Dworshak water will not be used for augmentation. NMFS would like to see a combination operation using Brownlee water: surging operation and an increase at Lower Granite to help increase flows at upper and lower portions of the pool. One option would be to go four days, then refill, and then four days again. More on this once the group hears from IPC.

SOR 2001-4:

This is a request from Oregon, Washington, USFWS and CRITFC to pass inflow up to powerhouse capacity at Albeni Falls, keeping elevation at 2054. Since Albeni Falls is the only reservoir scheduled to fill this year, the suggestion is to share some of the water to ease other areas of the system for fish and other users.

The COE expressed a need to recognize commitments made to plaintiffs in a prior lawsuit settlement to fill the lake this summer. In order to carry out the proposal, TMT needs to make a strong case for why to make changes to the operations established in April. One option is to fill the reservoir just high enough to get bull trout over gravel bars. This drought season could be an unusual opportunity to provide new minimums for bull trout at Albeni Falls.

Action: The salmon managers will work with resident fish folks and bring information to the next meeting.

Recommended Operations:

The recommended operation for 5/14 through 5/28 is to meet power system needs, hold headwater projects at a minimum, refill Grand Coulee and meet the FERC minimum of 36,000 for VB. There has been no agreed upon spill or augmentation, although some is expected from the Upper Snake. Lower Granite will continue to keep flows higher through midnight and operate at a 1.5 forebay range (MOP+1 – MOP+2.5). If Upper Snake water is made available, it will be added to Lower Granite.

Water Temperature Trend Procedure:

Dick Cassidy reported the results of modeling efforts recommended by TMT; these results can be found on the TMT web page link to WQT.

Action: The COE will continue to run more scenarios in order to document attempts to use any and all options that may be available.

Kootenay Lake Follow-up:

Regarding the possible net-neutral water trade with West Kootenay Power, there will need to be further public outreach in Canada for a possible release at the end of May. This means there is a

low probability that the trade will occur, but best efforts are ongoing to make it happen.

Treaty Fisheries Update:

Rudd showed tracking of COE's operations for the treaty fishery. The operation was within the 1.5 foot range (75 - 76.5 ft.) established in RCC teletypes for almost all hours of the fishery.

Next Meeting:

The next TMT meeting will be a conference call from 9-12. Brownlee details and Albeni Falls/Bull Trout will be discussed. [Note this call was cancelled to allow additional time to gather information on ALF bull trout conditions.]

Meeting Minutes

1. Greeting and Introductions

The May 9 Technical Management Team meeting, held at the Customs House in Portland, Oregon, was chaired by Rudd Turner 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 Turner at 503/808-3935.

Turner welcomed everyone to the meeting, then led a round of introductions and a review of the agenda.

2. Hanford Reach/Vernita Bar Update.

Joe Lukas reported that, for the week of April 30-May 6, Priest Rapids Dam was operated to maintain the 65 Kcfs Vernita Bar minimum flow; the fluctuation band was 60 Kcfs, with an actual range of 4 Kcfs-12 Kcfs during the week. Flows were low and stable, Lukas said. There was no random sampling this week, he said, but we did sample 6,136 fish at the index sites, average fork length 43.5 mm, range 36-68 mm. The transition to a lower Vernita Bar flow began May 8; flow has been dropping by 5 Kcfs per day, such that we'll be down to a minimum Vernita Bar flow of 36 Kcfs on May 12, Lukas said. The flow band will remain at 60 Kcfs for the next two weeks, he added.

Turner distributed a memo describing the outcome of the May 3 Vernita Bar Settlement Agreement parties conference call, at which this operation was agreed to. Day-average flow at Priest Rapids was about 61 Kcfs yesterday, Turner added. With respect to the status of the fall chinook emergence, said Lukas, we'll hit 1,000 CTUs today or tomorrow.

3. Brownlee Operation and Water for Refill.

Scott Bettin said there have been two separate negotiations regarding the use of Brownlee Reservoir for flow augmentation and shaping. With respect to BPA's negotiations with Idaho Power to use 180 KAF of Brownlee water to backfill Lower Granite pool for the surging operation, he said, we were not able to reach an agreement because Idaho Power wanted refill to occur in May, rather than June. Because of the poor runoff conditions, we decided to end negotiations on the 180 KAF, Bettin said.

Clearly that was much too large a volume, added Robyn MacKay; Idaho Power suggested one pulse of 45 KAF, but again, with the low runoff conditions and Idaho's minimum flow requirements in June, they wanted the water to be returned in May, which NMFS was unwilling to agree to. The idea behind the exchange was that June is a low point in the chinook and steelhead migration, said Paul Wagner; the idea was to increase Snake River flow in May and decrease it in June. Idaho Power replied that they wanted the water returned in May, so the deal was, at that point, off, Wagner said.

What is Idaho Power's minimum flow in May? Bettin asked. It's 8.2 Kcfs, Ningjen Liu replied. And in June? Bettin asked. It's 8.2 Kcfs in the first half of June, 6.5 Kcfs in the second half, Liu replied. That 6.5 Kcfs is a recreation constraint? Bettin asked. Correct, Liu replied.

Pat McGrane said Reclamation has also been in negotiations with Idaho Power regarding the delivery of the Upper Snake water; so far, they are only willing to pass that water through, without shaping.

There's another twist, McGrane said; we have to start augmenting flows in the Snake River, or it will run dry below Milner in the next two days. Reclamation's proposal is to start releasing the 38 KAF of Upper Snake water we currently have available at a rate of 230 cfs per day, said McGrane; IPC is willing to deliver that water over the next 83 days. At 230 cfs, all of the Upper Snake water will be delivered by late July or early August. When would that operation begin? Silverberg asked. Some time in the next two days, McGrane replied, adding that the last time this section of the Snake ran dry below Milner was 1992. The FERC minimum is 200 cfs below Milner? Jim Nielsen asked. Correct, Liu replied. McGrane noted that the minimum flow requirement says "if the water is available;" IPC is running out of water, the same as we are.

Any possibility of shaping that water into one month? Bettin asked. IPC won't shape it, McGrane replied; our feeling is the best way to deliver it is to keep the river wet as long as possible. In the meantime, more Upper Snake water may become available; we'll keep our fingers crossed. In reply to a question from Steve Pettit, McGrane said the 38 KAF is rented from the Shoshone-Bannock Tribes; it will come out of American Falls Reservoir. Pettit said IDFG is looking at whether or not this is the most beneficial use of the 38 KAF, in terms of anadromous fish needs; he said he will have IDFG's recommendation by the end of today's meeting.

Wagner said that, from NMFS' perspective, the proposed timing of this release is poor; it would be better to target it at the peak of the Snake River migration, rather than trickling it out

when few fish are present. Do we know why Idaho Power is reluctant to shape this water? Silverberg asked. I'm not sure of the reasons, Liu replied. Perhaps we should draft a TMT request to IPC to consider shaping this water, Bettin suggested.

It is unfortunate that Idaho Power refuses to participate in the discussions of how to ameliorate conditions for anadromous fish below Hells Canyon Dam, Nielsen said. I disagree, said MacKay – we have been negotiating for the release of Brownlee water, but they can't do it because of their minimum flow requirement. That's a separate issue, said Bettin – we're talking about shaping the Upper Snake water, which they seem to be unwilling to do unless they benefit.

Do we want to draft a letter from TMT today? Silverberg asked. There was general agreement that this would be an appropriate course of action. McGrane suggested that it probably makes sense to start Upper Snake flow augmentation as soon as possible, in the hopes that additional water may become available later to keep the operation going; Bettin agreed.

Pettit said that, after consultation with IDFG headquarters, the Department's official position is that, with only 200 cfs per day coming down, water temperatures would be lethal for fish, so it would be better to provide a 10-day pulse that would provide some benefit to anadromous fish, rather than dribbling out that water and essentially cooking fish. That would give us about eight days at 1.5 Kcfs, said McGrane, with some sort of rampdown period at the end. Any thoughts on that proposed operation? Silverberg asked. Is there some other way to shape this volume of water that would confer more benefit to salmon? IDFG's proposal is consistent with NMFS' recommendation, Wagner replied; the original proposal, to draft Brownlee in May and backfill it in June, would still be the preferred operation.

After a brief caucus, the salmon managers developed the following proposal for the Upper Snake water: to shape the water by releasing it from Brownlee over two days, increasing Snake River flow by 5 Kcfs-7 Kcfs, probably on May 14-15 (planning date only). The intent is to release the water at or just after the peak of the natural hydrograph, said Wagner; the exact timing of the operation will depend on fish movement, flows and, in particular, the moment when a sharp rise in tributary flows occurs. This should meet Idaho Power's criteria that Brownlee be refilled in May, he said; the water will be delivered out of Milner in a pulse, and delivered out of Brownlee in a faster pulse. I will pass that proposal along to John Bowling, said Liu.

I take it that we should start releasing water at Milner as soon as possible, probably tomorrow, at a rate of 1.5 Kcfs, given the fact that it takes four to five days for that water to get to Brownlee? McGrane said. David Wills said he had conferred with the Fish and Wildlife Service's Boise office; the snail experts were not in the office, but they are going to check to see if there are any snail conflicts with this proposed operation, particularly obligations for this water to be used for snails. If there is such an obligation, they are probably going to want to keep the river wet for snails below Milner. If the river stays wet for 80 days, then goes dry, isn't that going to kill them anyway? Pettit asked. At least one of the snail species has the ability to move from a dewatered area, Wills replied. My understanding is that the only obligation Reclamation has is to ramp down salmon flows by 100 cfs per day, McGrane said.

We need to know whether or not Idaho Power is willing to do some shaping in support of this operation, said Bettin; we also need to be sure there isn't some snail obligation we're unaware of right now. My suggestion is that we start releasing 1.5 Kcfs as soon as possible, and discuss any snail mitigation later, Wills said. In essence, this is a new proposal, said MacKay; we would be asking Idaho Power to do the pulse, and backfill them with the Reclamation water.

After a few minutes of further discussion, the TMT recommended that Reclamation release 230 cfs at Milner through Friday; if no shaping agreement is reached with Idaho Power, Reclamation will then increase Milner flow to 1.5 Kcfs until the 38 KAF is exhausted. If there is a snail constraint, McGrane said, under the worst-case scenario, we would get 6 days at 1.5 Kcfs, at which point we would have to start ramping down at a rate of 100 cfs per day. It is unlikely that the Fish and Wildlife Service will insist on that point, however, given water conditions this year.

McGrane said he will contact Idaho Power and ask if they would be willing to deliver, in a two-day pulse from Brownlee, at the request of TMT including NMFS, the 38 KAF of Upper Snake flow augmentation water, some time around May 14-15. We would prefer to backfill them at a rate of 230 cfs over the course of the summer, McGrane said; if they decline, we will provide 1.5 Kcfs at Milner starting Friday, and will work out the details of any snail rampdown with the Fish and Wildlife Service later.

I believe we have TMT consensus on this operation, said Silverberg. No objections were raised to this statement. If any additional pockets of Upper Snake water become available, said McGrane, I'll communicate that to TMT.

4. Lower Granite Spring Operations Proposal.

Ross said that, after getting comments from the salmon managers and others, the decision was made not to use Dworshak for spring flow augmentation, specifically to backfill Lower Granite pool during the proposed Lower Granite pulsing operation. We have been negotiating for the use of Brownlee water with Idaho Power, he said; you've just heard the status of those negotiations. Our preference is still to use Brownlee to backfill Lower Granite during the pulse operation, increasing velocities in both the upper and lower ends of the pool, said Ross; the status of that operation, again, depends on the outcome of the discussions with Idaho Power. Right now, doing both would be the best way to increase velocities in the whole pool, but that depends on the outcome of the IPC negotiations.

5. Spill for Fish Passage.

There was an emergency TMT call on Friday, said Turner; the Federal Executives asked TMT to make a recommendation, if spill was to be provided this spring in the range of 400 MW-months, about the best time, biologically, to begin that operation. TMT's recommendation was May 9, today, at 6 p.m., said Turner. At this point, BPA is working with the tribes, FERC and Grant PUD to see if a deal can be struck to make at least some spill available, said MacKay.

There are some tribal concerns, particularly among the upriver tribes, having to do with the nature of the spill exchange agreement, Turner said. Spill would be provided in May for about 30 days; if the water supply forecast deteriorates, Grant PUD will reduce spill over the summer. The Colvilles don't want to see a reduction in summer spill at the Grant County projects, Nielsen explained.

Bettin said BPA appreciates the TMT's input; unfortunately, he said, we're still waiting to finalize the deal that will allow spill to happen. The details have to be worked through FERC and the tribes, he said.

Wagner distributed a series of graphs showing the estimated benefits of 800, 400 and 0 MW-months of spill for various ESA-listed species; essentially, providing 400 MW-months of spill is estimated to provide about a 10% reduction in mortality for the listed species in this graph, compared to the estimated mortality associated with providing zero spill. The reason for such a significant increase in survival is that the 50 Kcfs minimum spill at Bonneville will represent about half the total river flow this summer, Wagner explained.

We'll watch our emails hopefully, in the hope that a deal can be struck, said Silverberg.

6. Current System Conditions.

Turner reported that current system operation remains essentially unchanged: maintain minimum outflow at the headwater projects, fill Grand Coulee to the extent feasible, consistent with maintaining the Vernita Bar minimum and meeting power system requirements. Outflow at Bonneville Dam has ranged between 132 Kcfs and 162 Kcfs over the past week. The Lower Snake is on weekly load shaping, with lower flows on the weekend. Flows last week at McNary ranged between 112 Kcfs and 140 Kcfs. The most recent SSARR predicts peak McNary flows of about 180 Kcfs some time around May 17. At Lower Granite, the day-average flow was 49 Kcfs yesterday; Snake River flows are once again on the rise. The latest SSARR predicts a peak flow in the mid-80 Kcfs range at Lower Granite during the week of May 14. Brownlee elevation is 2076.4 feet, with outflows in the 5 Kcfs-8 Kcfs range. We have implemented the 1.5-foot operating range at Lower Granite, as agreed at the last TMT meeting, Turner said; we are using that flexibility on some nights.

Dworshak elevation, as of midnight last night, was 1542.5 feet; the project filled eight feet last week, Turner said. Albeni Falls elevation is now 2054.6; the project is filling gradually, with inflows of 25 Kcfs and outflows of 15 Kcfs. The intent is to continue to fill that project slowly through June, releasing about 7 Kcfs under inflow. Priest Rapids released a day-average of 61 Kcfs yesterday. Libby was at elevation 2389.1 as of midnight last night, filling slowly (about two-tenths of a foot per day), with outflows of 4 Kcfs. Inflows are dropping; they were 5.8 Kcfs yesterday. We're hoping inflows pick up at that project before too much longer, Turner said.

He distributed updated volume histograms and "families of curves" for the upstream storage projects, revised to reflect the May final water supply forecast. The May final forecast

showed little change in the key basins, perhaps a slight drop-off, he said – about 70% confidence we'll reach elevation 1580 at Dworshak by June 30, and about 30% confidence that we'll achieve the June 30 refill targets at Hungry Horse and Libby. The Dalles January-July forecast is now 56.5 MAF, an increase of 0.4 MAF from the April final.

Kyle Martin observed that the fact that precipitation and snowpack went up last month, but the May final forecast went down slightly, seems counterintuitive to him – to me, he said, the numbers don't jive. It is suspicious to me that the volume forecast didn't go up more, and actually fell from the May early-bird forecast, given the fact that 60 MAF at The Dalles is the critical number BPA has said it needs to provide spill this spring. Martin agreed to call the River Forecast Center to get an explanation, and to report his findings at next week's TMT meeting. The bottom line is that we're still on-track to have the second-worst water year on record, Turner said.

McGrane said Grand Coulee elevation is now 1232 feet, with inflows of 95 Kcfs and outflows of 65 Kcfs. The project is 58 feet from full, and filling a foot per day. Hungry Horse has filled four feet in the past week. In the Upper Snake, he said, some projects are filling, many are drafting for irrigation. What about the Flathead? Litchfield asked. There has been a request to hold Flathead flows at 9 Kcfs, rather than the 12 Kcfs-13 Kcfs they would normally be this time of year, McGrane replied; it's hard to know right now what will happen there. Banks Lake is at 1569.2 feet, in the top foot of its operating range, he added.

Power system status? Silverberg asked. The emergency continues, Bettin replied; there are currently rolling blackouts in California, the status quo we expect to continue through June. Power prices have increased by \$300-\$400 per MW/h over the past three days, noted Sean Crandall.

Wagner said that, with respect to the current status of the fish migration, passage indices are falling sharply, in general. Yearling chinook indices peaked about a week ago, and are now sliding downward. Steelhead are showing a similar pattern. As the hydrograph comes back up toward the peak, we would expect to see the passage indices start to rise again, Wagner said. Overall, we're at about the 65% point in the expected yearling chinook run at Lower Granite; for steelhead, at about the 40% point.

The concern is that any fish that don't pass Lower Granite by June 1 probably won't pass at all, said Wagner, so hopefully, we'll see these numbers coming up. Passage at McNary is a sadder story, Wagner said; that's why if there is something we can do at McNary, in terms of powerhouse operations, similar to what we've done at Lower Granite this year, we had better start doing it very soon. Wagner added that the cumulative passage index at Bonneville Dam looks better, but this reflects large numbers of hatchery juveniles as well as the wild listed species.

With respect to adult passage, said Wagner, cumulative passage is now in excess of 340,000 spring chinook at Bonneville; it looks as though we may get to more than 360,000 by the time the run is finished. More than 108,000 adult spring chinook have now passed Lower

Granite Dam; that compares to just over 41,000 in 2000.

With respect to chum outmigration, the Hamilton Springs and Hardy Creek outmigrations are both past the peak and winding down, said David Wills. A total of 14,500 chum outmigrants have been captured to date at the Hamilton Springs trap, about 3,000 at the Hardy Creek trap

7. New System Operational Requests.

On May 3, the Corps received SOR 2001-4. This request, supported by ODFW, USFWS, WDFW and CRITFC, requests the following specific operations:

- Beginning immediately, pass inflow up to powerhouse capacity at Albeni Falls. Albeni Falls Reservoir should maintain its current elevation of 2054 feet.

Christine Mallette spent a few minutes going through the contents of this SOR, the full text of which is available via the TMT homepage. Please refer to this document for details of justification.

We started refilling Albeni Falls last Saturday, because we have made public commitments to do that this summer, Turner said – the federal government has made those commitments to the federal courts. He distributed a letter on this topic from John Cruden, the acting Assistant Attorney General, Environmental and Natural Resources Division, to the parties in the suit Lake Pend Oreille Idaho Club v. Corps of Engineers, indicating that the Corps does plan to refill Albeni falls by June 30.

The Corps agreed to delay the onset of refill at Albeni Falls as the TMT requested, Turner said; however, we did not agree to do away with refill, and at this time, we feel we need to continue on the path we have committed to publically. However, we also want to seek TMT input on the best operation to accomplish that, Turner said. Holding elevation 2054 through the summer at Albeni Falls, in other words, is very unlikely, he said.

Turner spent a few minutes going through the contents of this letter, noting that Kerr Dam outflow is also a factor in this operation. We have just learned that discharge from Kerr is going to be decreased this year, he said; we're going to get 9 Kcfs, rather than closer to 13 Kcfs as we would in a normal year.

Our view is that we told the court, less than a month ago, that this was the planned operation, Turner said. If we are going to go back to the court and seek to change this operation, we're going to have to be able to make a pretty persuasive case that conditions have changed, Turner said. He explained that a lawsuit was filed two years ago; in the process of doing the kokanee/bull trout interaction study, there was a desire to get Lake Pend Oreille to lower levels. This lawsuit, filed by the lake residents, enjoined us not to do that, Turner said. There have been settlements worked out for the past two years, he explained, and we have operated the lake to elevation 2053 during the fall. As part of that settlement, the Corps committed to a year-round operation, but there may be some flexibility to go to a different operation.

The bottom line is that our answer to this SOR is not exactly no, Turner said; there may be some flexibility to implement it, but it's pretty late in the game, and we will need to make a persuasive case that conditions have changed significantly. There is also some risk that, even if we change the operation at Albeni Falls, the water may be impounded at Grand Coulee, and may not even benefit fish downstream. If Grand Coulee reaches elevation 1278, said McGrane, you can assume that the water will make it downstream by the end of September.

This letter is to the plaintiffs, not the court, said a representative from the Corps legal counsel's office; notification of the plaintiffs is required under the terms of the stipulation. In response to a question from Litchfield, Turner said there is a total of 780 KAF on the table here, the difference between elevation 2054 and full (elevation 2062) at Albeni Falls. Another thing to consider, said Turner, is that if we don't refill Albeni Falls this summer, that will decrease the volume of water available to augment flows for lower river chum spawning this fall.

Wagner said NMFS did not support this SOR because it was a party to the settlement of this lawsuit; he needs to coordinate with NMFS legal staff to see whether or not it can support it under the terms of the settlement. Pettit said IDFG has serious concerns about keeping Albeni Falls so far from full, related mainly to bull trout access to tributary spawning areas.

Wills said he had contacted Fish and Wildlife Service biologists in the area prior to expressing his support for this SOR; however, the bull trout tributary passage issue was not brought to his attention at that time. We do have some concerns about this SOR, he said, and would be less than enthused about seeing lake levels this low during the bull trout spawning season. It sounds, then, as though the Fish and Wildlife Service may no longer support this SOR, said Silverberg.

So the Corps would like the TMT's input? Silverberg asked. We need to give the court a real good reason as to why we've changed our mind, Turner said; after considering all of the tradeoffs, are we doing the best we can for all listed species, lawsuits aside?

What minimum lake elevation is needed to ensure adequate bull trout passage? Mallette asked. My understanding is that field personnel have never seen lake levels this low at this time of year, Will replied, so I can't really answer that question – there are barriers to passage into some tributaries right now.

Could we monitor this year, as the lake refills, to see at what elevation reasonable passage conditions are provided? Mallette replied. Possibly, Wills replied. With that information, we might be able to set a new minimum elevation at Albeni Falls, Mallette observed.

After a few minutes of further discussion, Turner said that, in the absence of a compelling reason to do otherwise, the Corps intends to continue with refill at the current rate of about a foot per week, at least until a sufficient lake elevation is achieved to allow adequate bull trout passage to the tributaries. He asked the salmon managers to pursue field surveys that might help identify the elevation at which that occurs. We will discuss this issue again at next week's TMT

conference call, Silverberg said.

8. Recommended Operations.

For the period May 14-28, said Turner, the operation will be much the same as it has been in recent weeks – operate the system to meet power needs, refill Grand Coulee and the upriver storage projects to the extent feasible while meeting the 36 Kcfs minimum flow at Vernita Bar. There is still no spill program, he said, but we will start seeing some flow augmentation water from the Upper Snake in the next day or two. The current operation at Lower Granite, keeping flows as high as possible through midnight, will continue through the use of a 1.5-foot operating range at that project.

The group discussed whether or not, if it is possible to shape the Upper Snake water through Brownlee into a two-day period, that water should be passed through Brownlee without exceeding the 1.5-foot operating range at that project, or should be used to fill the pool higher for a pulse to be released during nighttime hours; ultimately, it was agreed that, if the Upper Snake “pulse” can be shaped through Brownlee, it will be passed through Lower Granite, using the 1.5-foot operating range at that project to shape it as much as possible into evening hours.

9. Water Temperature Trend Procedure.

Dick Cassidy said he had made a presentation to IT last week on some recent MASS1 modeling work the Corps has been conducting; we modeled a “worst-case” scenario by combining the 1977 flow year with 1994 meteorological conditions, both the worst on record, he explained. This report is available via the TMT homepage, Cassidy said. We assumed a release of 10 Kcfs at 48 degrees from Dworshak beginning July 1 and running through September, the best possible contributions from Dworshak, in other words. The bottom line is that the best that can be achieved is a 1-degree C reduction in temperatures at Lower Granite, with reduced water temperature benefits at downstream projects.

According to the model results, this operation did reduce the number of days we would be above the critical level of 20 degrees C from 35 to about 20, said Cassidy, so that 1-degree reduction in temperature is not insignificant. We can model some additional scenarios if the TMT desires, he added, but this gives you a sense of what benefits the Dworshak water might provide under the worst-case scenario.

Wagner said that, in his view, it would be useful for the Corps to model the full range of Dworshak operational alternatives, in order to further inform and document whatever Dworshak operation is ultimately recommended. No TMT disagreements were raised to Wagner’s suggestion.

10. Other.

A. Kootenay Lake Update. Turner said “wait and see” is the status of this operation; this is a follow-up to the discussion of West Kootenay Power’s request to hold water in the lake and

release it later in the year. The flow and timing neutrality of this operation is the issue; also, West Kootenay will likely need a variance from the International Joint Commission, then conduct a public outreach process on both the Canadian and U.S. sides of the border. It sounds as though the IJC, in other words, will be the entity that makes this decision, Turner said. This will need to be approved by the end of May if the requisite storage is to be captured from the freshet, said Turner, so to put it mildly, time is tight if this is to be done this year. Ross reiterated his earlier comment that the requested operation needs to be water-neutral by August 31.

B. Treaty Fishery Operations. Turner distributed a series of graphs showing operations during the treaty gillnet fishery, to show the hourly forebay measurements at Bonneville during the hours of the treaty fishery. At last week’s TMT meeting, Kyle Martin presented information showing that Bonneville Pool was in compliance with the requested reservoir elevation only 60% of the time, said Turner; according to the Corps’ information, the actual percentage of time in compliance was closer to 75%. CRITFC is working on its response – stay tuned, Martin said.

11. Next TMT Meeting Date.

The next meeting of the Technical Management Team (a conference call) was set for Wednesday, May 16 from 9 a.m. to noon. It was agreed that there will be an earlier TMT conference call if flow conditions change such that the Upper Snake “pulse” is triggered prior to next Wednesday’s meeting. The next face-to-face meeting of the TMT will take place May 23. Meeting notes prepared by Jeff Kuechle, BPA contractor.

TMT ATTENDANCE LIST

MAY 9, 2001

Scott Bettin	BPA	503/230-4573
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Sean Crandall	Enron	503/464-3815
Jim Litchfield	Montana Consultant	503/222-9480
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