

# **COLUMBIA RIVER REGIONAL FORUM**

## **TECHNICAL MANAGEMENT TEAM MEETING NOTES**

**April 25, 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 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.

#### **Operations Plan Proposal Update:**

CRITFC, Oregon and Idaho have sent comments to BPA for review. The proposal will be discussed at Friday's Regional Executives' meeting.

#### **Power System Status:**

The power emergency remains in effect indefinitely until the BPA Administrator makes an announcement to the contrary.

#### **Fish Migration Status:**

272,988 adults have been counted thus far! Juveniles are not yet moving out as they normally do this time of year, resulting in a worrisome loss of body mass. A question was raised about the numbers in Alaska – is there a shift down for adult numbers as in past years? 2,300 out-migrant chum were found at Hardy Creek and 12,500 at Hamilton Springs.

#### **SOR 2001-3**

The salmon managers have been discussing many options to help speed travel time for smolts. They came up with the plan to draft from BRN in May and refill in June. BPA was encouraged to work with Idaho Power on this matter, as questions still exist whether or not there is a surplus of water in the Snake River. The salmon managers see this proposal as a win-win situation in that water is used before it warms up and BPA pays IPC for the swap as a mitigation effort.

A letter from Idaho Power indicated their desire to get information from parties that were on a conference call held in April. The IPC letter expressed concern that a conflict may exist between the federal plan and this SOR. Also, Oregon was asked to help get water from Oregon water users.

**ACTION:** Pat and Christine will talk and report on Oregon water availability at next week's TMT.

**NEXT STEPS:** BOR, NMFS, IPC, BPA and Nez Perce will have a follow-up conversation and report back at the next TMT meeting. Pat McGrane will set up both this call and the one between Oregon and BOR.

**Hanford Reach:**

Chris Carlson from Grant PUD reported that Vernita Bar is at 847 TU; 1000 is required by the end of emergence, which is expected 5/10. Jim Nielsen reported on emergence numbers, which showed a big jump on 4/18. He noted that this could be the peak, but more current numbers were needed to fully assess the situation. It was noted that the action at VB has an impact on GCL. If a drop in fish numbers is seen, the group may recommend dropping flows on 5/4.

**SOR 2001 C-3:**

A tribal fishery request for 4/26 through 4/28 asked to hold BON, TDA and JDA within one foot. COE said they would operate BON at a 1.5 foot range, as previously coordinated with CRITFC, and BPA said they would make efforts to do the same at TDA and JDA, noting it as a soft constraint.

**NMFS Lower Granite Proposal:**

NMFS is waiting to see comments on the Federal Operations plan—including this item. On this issue, the group discussed the possibility of keeping LGR flows up until midnight in order to help the juvenile migrants get past the project at a time most likely for their movement. Robyn discussed the surplus problem and BPA's strategy to bring flows to a minimum at night. She will ask BPA if she has authority to make decisions on this proposed action.

**ACTION:** Robyn will notify TMT members of the decision regarding running flows until midnight.

**Recommended Operations:**

Continue to operate headwater projects at Grand Coulee consistent with Vernita Bar until emergence is complete or an acceptable cut-off point to which the VB settlement group has agreed. No spill or augmentation is recommended at this time. LGR – hold flows up until midnight on nights when no surplus exists and within MOP. NOTE: This recommendation may be amended by Regional or Federal executives.

**Kootenay Lake Operations:**

The COE discussed proposed BC Hydro operations. After reviewing the proposal, BOR and others said they could not support this operation if it effects GCL elevations. However, a possible Arrow swap could make GCL whole. The salmon managers also would not be supportive if there are negative effects on GCL or on flows for fish. BPA said they would support the plan as long as the entire operation is a net neutral at the border. There was a concern that the shift of water from July/August to September would have an adverse effect. COE believes this operation would be either neutral or a gain. **Question:** So long as BC Hydro and Kootenay can work it so no change is seen at the border, is there any opposition?

**Next Meeting – Conference call, May 2, 10-1:**

**IMPORTANT: The group decided to start its Wed. meetings at 10 a.m. to allow for travel time and to get one phone line for the entire meeting.**

Proposed agenda items for 5/2 call:

- Update from Pat McGrane regarding Oregon water and Brownlee discussions
- LGR evening flows and status of NMFS BO regarding the Snake River
- VB emergence numbers and decision regarding GCL flows
- Tribal fishery update and possible SOR

**The next face-to-face TMT meeting will be held Wednesday, May 9 from 10-1 (note the new time!) [time later changed back to 9 - 12]**

## **Meeting Minutes**

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

The April 25 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 Update.***

Chris Carlson of Grant County PUD reported that, as of April 24, the Hanford Reach chinook are at 847 temperature units, with 1,000 required for complete emergence. We're gaining about 9 TUs per day, he said, and we're getting fairly close to the end of emergence, 53 TUs short of 1,000. Jim Nielsen said he had heard an estimate that emergence will be complete some time between May 5 and May 9. At 9 TUs per day, we would be looking at about May 10, David Wills noted; of course, that date will come sooner if the weather warms up.

If we were to drop the Vernita Bar flow this Friday, April 27, do you have any sense of what percentage of the total spawning would be affected? Pat McGrane asked. It's safe to say that we are now entering the period of peak emergence, based on index seining numbers, said Nielsen; in other words, this Friday would not be a good time to drop the Vernita Bar protection flow. He added that Paul Hoffarth of his office has calculated that emergence will end on May 10 this year.

It sounds, then, as though dropping the Vernita Bar minimum flow this Friday is not the preferred operation, said Silverberg. We would like to try to reach agreement on an operation

that will carry us through May 13 at today's meeting, said Turner – is this an issue we can revisit on next Wednesday's conference call? I think we just need to keep our eye on the situation, and discuss it as conditions change, said Robyn MacKay – you need to bear in mind, however, that whenever maintaining the Vernita Bar minimum puts us in a surplus power situation, that water comes out of the flexible storage account, and in essence it is gone.

If the seining counts begin to drop, said McGrane, I think we should consider dropping the Vernita Bar minimum flow on Friday, May 4. If load is higher and temperatures are colder, or if it turns out that the run has not yet peaked, then we will not reduce Vernita Bar flows. However, I think it would be prudent to adopt a similar strategy to the one we used for chum this year – protect the majority, but not the totality, of the run, said McGrane. Silverberg asked whether it would be possible for WDFW to do some additional index seining work over the next week or so, in order to provide some additional data points to inform the discussion of whether or not peak emergence has occurred. Nielsen replied that he will check. It may also make sense to ask the Vernita Bar Settlement Agreement parties to get together to discuss this issue, David Wills observed.

Turner added that, with natural flows starting to increase, it may be possible to decrease Grand Coulee outflow and still meet the 65 Kcfs minimum at Vernita Bar.

### ***3. Comments on 2001 Federal FCRPS Operations Plan Proposal.***

You were asked to review this proposal and come to today's meeting prepared to discuss it, said Silverberg, in preparation for the presentation of the proposal to the Federal Executives on Friday. CRITFC submitted comments on Monday, said Kyle Martin. The state of Oregon also submitted comments to the executives, said Christine Mallette. Nielsen said Washington has submitted comments on the Lower Granite operation, and has no further comments at this time. Steve Pettit said IDFG submitted its comments to the Idaho Governor's office. I don't believe we have yet received comments from Idaho, Washington or CRITFC, said Robyn MacKay. BPA is compiling the comments as they come in, and developing responses for Friday's meeting, Turner said. After that meeting, the federal proposal will be revised over the next week or so, and hopefully will be finalized soon after.

### ***4. Lower Granite Spring Operations Proposal.***

The status is essentially unchanged from last time, said Chris Ross; this operation is a part of the federal FCRPS operational proposal, and will be discussed by the executives on Friday. We have received comments from a number of co-managers, he said, but we're still awaiting tribal comments. Martin said he will check on the status of CRITFC's comments.

### ***5. Current System Conditions.***

Turner reported that Bonneville released releasing day-average between 93 Kcfs and 137 Kcfs over the past week; yesterday's average flow was 120.4 Kcfs, 130 Kcfs during the day and 80 Kcfs at night. Last week, Bonneville tailwater elevation fluctuated between 9.4 and 12.4 feet.

At McNary, over the past week, day-average flows have ranged from 81 Kcfs to 115 Kcfs. At Priest Rapids, the day average was about 68 Kcfs for most of the week, but increased to 73 Kcfs yesterday. That's at the project, not the USGS gauge, he added. Flows at Lower Granite have ranged between 30 Kcfs and 37 Kcfs over the past week. Dworshak is now at elevation 1522.6, and filling at a rate of half a foot per day. Inflows to the project have averaged between 4.7 Kcfs and 5.9 Kcfs over the past week, and are rising slightly (5.9 Kcfs was yesterday's inflow). Dworshak is still on minimum discharge, about 1.8 Kcfs.

At Libby, said Turner, elevation is basically holding steady, dropping about a tenth of a foot per day. Current project elevation is 2389.5 feet. Inflows are rising slightly; outflow continues at minimum, 4 Kcfs. At Albeni Falls, at the Hope Gauge, project elevation is currently 2053.6 feet, still holding steady. As the TMT recommended, Turner said, the Corps is delaying refill at that project until Vernita Bar emergence is over. Albeni Falls is currently passing inflow of 10.2 Kcfs. At Brownlee, he said, current elevation is 2075; the reservoir filled about two-tenths of a foot over the past week. Hells Canyon discharge is currently 12 Kcfs. Overall, Turner said, the system continues to operate to refill the upstream storage reservoirs to the extent possible, as allowed by power system needs, and to meet the 65 Kcfs minimum at Vernita Bar.

McGrane said the current Grand Coulee elevation is 1217.5, 73 feet from full, essentially unchanged over the past week. The project is passing inflow of about 60 Kcfs. Hungry Horse is at elevation 3487 feet, also 73 feet from full. We will be releasing the 500 cfs minimum at that project by the end of the week, as snowmelt has begun on the Flathead, McGrane said.

Do you think we'll see an early runoff this year? Nielsen asked. It's hard to say, McGrane replied – I doubt it will be as early as last year, when the runoff peak occurred in April. Martin said the latest projections he has seen say the runoff peak will occur in mid-May. This week's SSARR run, which assumes normal weather, shows the peak at Lower Granite in the last week in May, the peak at McNary in early June. Again, however, that assumes normal weather; warmer or cooler-than-normal weather will obviously move that peak forward or backward.

What about American Falls reservoir? Greg Haller asked. It's full, as are all of the projects downstream from there, McGrane replied; the Henry's Fork projects are also nearly full. Palisades and Jackson Lake are significantly short of full – 200 KAF and 550 KAF short, respectively; the Reclamation projects on the Boise and Payette are also far short of full. Turner said anyone who wants to find out more should consult Reclamation's updated "teacup" diagrams on the TMT homepage.

Will Jackson Lake and Palisades fill this year? Paul Wagner asked. Jackson Lake will come close, but Palisades is about as full as it will get this year. McGrane replied. And how much of this water is designated for irrigation? Haller asked. Virtually all of the space that's full is designated for irrigation, McGrane replied – the empty, last-to-fill space is what is typically used for flow augmentation. Are the irrigators planning to use all of the available water? Haller asked. Hard to say for certain, McGrane replied – it depends on which basin. In the Boise and Payette, there is a water shortage. In the Upper Snake, we don't know yet, but they could use it

all. There could be anywhere from 0 to 300 KAF left over in the Upper Snake, but we won't know until the end of the irrigation season, McGrane said.

The April mid-month forecast came out on April 19, Turner said; the march toward a record low water year seems to have halted, temporarily at least. At The Dalles, the January-July forecast is now 57.7 MAF, 54% of normal, up 1% over the April final. At Grand Coulee, the January-July forecast is now 39 MAF, 62% of normal. At Lower Granite, the April-July forecast is now 10.3 MAF, 48% of normal, but up 2% from the April final. At Brownlee, the April-July forecast is now 2.05 MAF, 35% of normal, again up 2% from the April final. In recent weeks, there as been some snow accumulation, because of the cool weather, Turner added.

Martin said that, overall, he expects precipitation to be about 85% of normal for April, and about 70%-90% of normal in May. On the other hand, the National Weather Service is predicting higher-than-normal precipitation in May, so pick your poison, Martin said.

Moving on to the most recent storage project volume histograms, Turner said little has changed over the past week. There is likely to be little or no water available for flow augmentation from Hungry Horse until June 30, he said -- maybe 30 KAF if you assume 30% confidence of filling to elevation 3540 feet on June 30, -56 KAF if you assume 50% confidence of refill to that elevation and - 136 KAF if you assume a 70% confidence of refill to that elevation. At Dworshak, Turner said, we could have 238 KAF available for flow augmentation if we assume a 30% chance of reaching elevation 1580 by June 30, 117 KAF if you use a 50% probability, -5 KAF if you assume a 70% probability.

At MacKay's suggestion, Turner said he will explore the possibility of using the April-August water supply forecast, rather than the January-July forecast, to drive these histograms. I think that would give us a truer picture of what's going to happen between now and August, she said.

Moving on to the current status of the power system, MacKay said this was a good week; we were able to meet the Vernita Bar minimum and just meet load, she said – the warmer weather helped. The power system emergency declaration continues in force; the plan is to reconsider that at the beginning of May. In response to a question from McGrane, MacKay said she assumes that if the Snake River continues to pick up, there should be an opportunity to back off Grand Coulee outflow somewhat – we're rapidly approaching that decision-point, she said.

Next, Wagner discussed the status of the fish migration. With respect to adults, Wagner said numbers have begun to decline somewhat; the high was 27,000 passing Bonneville on April 18; passage dropped to 6,357 yesterday. The forecast was revised upward to 420,000 adults following the April 18 high; obviously, that jinxed things, Wagner said – I guess we were swept away with irrational exuberance. So far, about 273,000 fish have passed Bonneville, and we'll just have to see where we end up – this is a lot more fish than we've seen for a long time, Wagner said.

With respect to the juvenile migration, yearling chinook numbers at Lower Granite have increased slightly, but we're not even close to where we should be, based on the historic record, Wagner said. We seem to be following a 1998-type outmigration pattern this year, he said – lower flows, cooler weather, a late migration. At Lower Granite, yearling chinook numbers have increased steadily, from 3,771 on April 11 to 22,200 on April 24. The total to date is just over 139,000. At McNary, over the past week, daily passage has been on the increase, but is much lower than expected for this date. Moving on to juvenile steelhead passage, Wagner said a similar seasonal pattern holds true; 26,050 steelhead were counted yesterday at Lower Granite, 9,699 at McNary.

Another concern is fish condition, Wagner said; there have been reports that the Snake River steelhead that have been sampled appear to be using up their reserves very quickly, and are showing signs of stress and emaciation. We have never before observed these conditions prior to the natural peak in runoff, said Steve Pettit. In response to a question from Turner, Pettit said the vast majority of the juveniles sampled by IDFG to date have been hatchery fish.

The group also spent a few minutes comparing the graphic representations of the 1992, 1994, 1998 and 2001 outmigration on the Fish Passage Center homepage; what this shows, said Wagner, is that we are not doing well so far in 2001.

Moving on to chum outmigration, David Wills reported that the Hardy Creek trap has captured 2,300 outmigrants to date. Only 10 females were counted going upstream in that system, so it's not expected to be a great year; still, 2,300 looks low, he said, particularly given the fact that we're likely past the outmigration peak in that system. At Hamilton Springs, the trap has captured 12,500 fish to date, and is catching in the hundreds on a daily basis. About 30 females entered Hamilton Springs this year, so it's doing a little better, Wills said.

#### ***6. New System Operational Requests.***

On April 19, the Corps received SOR 2001-3. This SOR, supported by ODFW, USFWS, CRITFC, WDFW and the Nez Perce Tribe, requests the following specific operations:

- Evenly draft Brownlee Reservoir from full elevation, 2077.4 feet, on May 1 to elevation 1976 feet on May 31.
- Refill Brownlee Reservoir from June 1 through June 30 with releases, in addition to projected normal operations, of 980 KAF water volume stored in Upper Snake reservoirs.
- Pass natural inflow, projected to be, 10 Kcfs during the refill period.
- Provide as close to the 980 KAF water volume as possible so that spill does not occur at the Hells Canyon Complex.

Greg Haller went briefly through the specifications of and justification for this SOR, the full text of which is available via the TMT homepage. Please refer to this document for details of this SOR.

Turner noted that Idaho Power has provided a response letter to this SOR; in essence, it says that IPC is willing to attempt to cooperate with regional efforts to mitigate for the impacts of the Lower Snake projects on ESA-listed species, provided that BPA is willing to reimburse Idaho Power for any monetary costs or energy losses, and that Brownlee's contribution to the Lower Granite surging operation will be refilled with storage water from upstream Reclamation reservoirs. The letter concludes that given the severe drought conditions in Idaho this year, the prospects for refilling Brownlee with 980 KAF from the Upper Snake projects is highly improbably, if not impossible; SOR 2000-3 "seems to proceed with complete disregard for the hard facts regarding current water conditions in the Snake River Basin."

Martin noted that there is storage water available in Idaho, and a number of farmers have expressed a willingness to sell their water this year. Norm Semanko said that, with all due respect, there is no plethora of water available in the Upper Snake; there is virtually nothing in the water bank. Reclamation may have some uncontracted storage space they can use, but the irrigators have no surplus water this year. You have concerns about salmon in this dry year, but we have the same concerns about the irrigators, Semanko said.

Idaho Power wants to be paid for any contribution, said Haller; I would like to encourage BPA to work with Idaho Power to make that happen. That would have a double benefit for the power system, he said. We are looking into that, said MacKay, but from a physical standpoint, if we don't have water available for immediate backfill, we will have to reduce Snake River flows by up to 30 Kcfs in order to refill Brownlee. Before we talk about the financial side of this question, she said, we probably should talk about the physical limitations imposed by the refill requirements Idaho Power is seeking.

The question is, what kind of conservation burden are Idaho Power and the irrigators willing to assume? Said McGrane. Two weeks ago, the Idaho Governor signed legislation allowing the use of up to 427 KAF from the Upper Snake projects this year; to date, however, Reclamation has only 38 KAF in hand for flow augmentation. Is it true that Idaho Power is purchasing water from the water banks? Nielsen asked. They have tried, and are even offering six times as much money as Reclamation has offered, McGrane replied – they have found no takers. In essence, the irrigators are holding very tightly to their water this year, he said.

Is BPA willing to beat IPC's price to make this happen? Haller asked. IPC has not yet been successful, so we can't really talk about beating their price, MacKay replied. Again, she said, I don't think the SOR as proposed is physically doable, she said. We can certainly draft the water out, she said, but I'm not sure we could refill Brownlee in the month of June, or even by the end of August.

In response to a question from Haller, Christine Mallette said Oregon supports this SOR as written. There are 700 KAF of irrigation storage in Reclamation reservoirs in Oregon, upstream from Hells Canyon complex, McGrane said. Are you saying Gov. Kitzhaber might authorize legislation allowing Reclamation to use some of that water for flow augmentation? That's one of the assumptions behind our support for this SOR, Mallette replied. McGrane observed that Oregon's process for obtaining water is extremely cumbersome, much more so than Idaho's. He said he will explore this topic in more detail with Mallette following today's meeting.

We are fully aware of the ramifications and difficulties involved in drafting Brownlee this year, particularly with respect to attempting to refill that project and the hardships that might impose, Mallette said. Perhaps we could ask you to report back to the TMT next week, Turner said. I will do so, Mallette replied.

Clearly we have a fish emergency as well as a drought and power emergency, said Nielsen – the question is, how can we share the pain? This is what the salmon managers came up with, he said. We think this is a good operation, said Martin, and would like to see it implemented.

Our assumption is that whoever has authority to get water from Brownlee will do so, Haller said – if nobody has that power, then that's a problem that needs to be addressed. Martin observed that it is extremely disappointing that no one from Idaho Power bothered to attend or call into today's meeting. That silence speaks loudly, said Nielsen.

My sense is that Idaho Power is expecting some additional follow-up from the conference call referenced in the IPC letter, said Turner. Again, said MacKay, we need to address the physical feasibility of the refill operation called for in the letter. McGrane said that Reclamation simply does not have 980 KAF of water available to backfill Brownlee at this time, and can in no sense guarantee that it will have that volume available by June 30. Again, he said, we now have only 38 KAF definitely in hand; we don't know, at this time, how much water we will eventually have for flow augmentation or backfill purposes. We are exploring other sources of water, he said, but that's the only block of water we directly control at this time.

McGrane added that Reclamation will not release any water for fish until the Upper Snake BiOp is signed. When will that be? Nielsen asked. The final draft should be out any day, Wagner replied. The fish do not recognize legal deadlines, said Martin; they need the water now.

Where do you want to go with this today? Silverberg asked. Idaho Power has said no to this SOR, unless certain conditions are met, including guaranteed backfill of Brownlee in June, which may or may not be physically feasible. Idaho Power needs to assume some risk this year,

just like everyone else, said Haller – I’m not convinced that their demands constitute a legitimate constraint. It sounds, from a next steps standpoint, as though Reclamation needs to talk to Oregon about the availability of Oregon irrigation water to backfill Brownlee, Silverberg said; it also sounds as though the parties to the earlier conference call need to follow up with Idaho Power.

What’s the status of the Idaho Power Company Biological Opinion? Nielsen asked. Good question, Wagner replied – a draft was finished several months ago, but I can’t tell you why that draft has not moved forward. It’s because you’re getting strong-armed, Haller observed. There has been no movement on the draft, said Wagner; it has been put on hold indefinitely, and I can’t tell you why. That is a real problem, from a biological standpoint, Haller said.

McGrane said he will take the lead in organizing the two needed telephone calls, probably this Friday afternoon, and will report back to the TMT next week. I will also try to get a better answer to Jim’s question before next week’s TMT meeting, Wagner said.

On April 11, the Corps also received SOR 2001 C-3. This SOR, submitted by the CRITFC tribes, requests the following specific operations:

- Implement the following operation during the ceremonial and subsistence treaty fishery, from 6 a.m. April 26 through 6 a.m. April 28:
- Bonneville Pool: operate the pool within 1 foot from full pool (msl elevation 77-76)
- The Dalles Pool: operate the pool within 1 foot (from msl elevation 159.5-158.5)
- John Day Reservoir: operate the pool within 1 foot (from msl elevation 264.5-263.5)

Martin went briefly through the specifications and justification of this SOR, the full text of which is available via the TMT homepage. Please refer to this document for details.

Martin added that additional SORs will be submitted to cover the upcoming treaty commercial fishery periods, beginning April 26-28.

Turner said the Corps’ understanding is that they will continue to operate Bonneville pool within a 1.5-foot range during the upcoming treaty fisheries; we have been able to do that so far, he said. MacKay added that BPA will impose soft constraints on the pool levels at The Dalles and John Day, and will attempt to meet the terms of the SOR whenever power system conditions allow. So far, she said, we’ve been able to do a pretty good job. Turner added that the Corps is working on a formal written response to this SOR, which will be sent to Don Sampson as soon as it is completed.

## ***7. Recommended Operations.***

The group briefly discussed current operations at Lower Granite; Wagner noted that, at last week’s meeting, Scott Bettin had said he would see how much flow it would be possible to shift into nighttime hours up to midnight. The group looked at hourly flow information from Lower Granite over the past few days, which shows gradually-declining flows up to the midnight hour. MacKay said that, to keep flows up through midnight at peak hourly volumes will create a

surplus power condition, which BPA has been attempting to avoid; it will also cause the Lower Snake projects to go outside of MOP.

However, if you're just talking about a couple of hours leading up to midnight, rather than keeping them at peak levels all the way through midnight, that's less of an impact, said MacKay. I think it may be doable, but there will be tradeoffs. Why couldn't you just pass inflow, and run a flat 35 Kcfs around the clock? Pettit asked. We're trying to operate the projects to avoid power surplus, MacKay replied – our goal is to meet load and not be surplus in any hour. If you keep the flows up at Lower Granite through midnight, but can't back off generation at another project because they're already on minimum generation, then that water is gone from the system, unless you can pond it at the next project or projects downstream.

I guess what I'm trying to say is that all of the projects are going to minimum generation during nighttime hours, said MacKay – the opportunity to back off generation at another project while increasing it at Lower Granite is minimal, which means a forced surplus situation for BPA.

I can't think of a worse operation for fish than peaking flows in the morning and drastically-reduced flows at night, Pettit said. If you do that once we get the meager peak of the runoff this year, he said, you will essentially be dooming the 2001 Snake River outmigration. BPA isn't opposed to this request, said MacKay; I'm simply telling you that it will involve a tradeoff.

Perhaps the salmon managers can discuss this further and develop a recommendation for next week's TMT meeting, suggested Silverberg. When are we going to stop putting things off, and actually do something for fish? Pettit asked. We could sell the surplus power, that's an option, MacKay replied; we could also store outside of MOP at Little Goose as a way to minimize the impacts of this operation. Could you do that tonight? Wagner asked. I'm not sure, said MacKay – is that what the TMT wants? We can consider this request, but at the same time, the federal parties have put forward a proposal which includes building up the federal storage account for use in spill and other fish operations. This is in essence a competing proposal, she said, and it's hard to know which should take precedence. We would be eroding that flexible storage account, at a time when we haven't really decided what it's going to be used for.

Can we ask you to go back to Bonneville and get an answer to this question? Silverberg asked. MacKay agreed to do so, and to send an email to the other TMT members as soon as the answer is known. MacKay added that NMFS, the Corps and Reclamation may also want a say in how this water is used. Turner observed that the Federal Executives have made it plain that they do not want to make decisions on weekly operations; he suggested that it makes sense for the TMT to attempt to reach agreement on a recommendation on this operation at today's meeting. Mallette and Nielsen both said it probably will not be possible to reach such an agreement at today's meeting.

We are just talking about an additional two hours at 15 Kcfs, Wagner observed. It will depend on what's going on in the system, whether or not it this would cause problems in the system, MacKay replied. I think we have agreement, then, that BPA should do this operation on

any night that implementing it will not cause Little Goose to go outside of MOP, Wagner said; there was general agreement that this is the case.

Steve Pettit made a good point a few minutes ago, said Turner – it's late April, fish are showing up at the projects, and TMT needs to recommend actions to help us meet ESA responsibilities.

It sounds, then, as though we will continue to operate the headwater projects and Grand Coulee to store, to the extent feasible, while meeting power system needs and the Vernita Bar minimum of 65 Kcfs, until emergence is complete or we have agreement on an acceptable cutoff date, Turner said. There is more conversation that needs to happen there. We also have a TMT recommendation that the above-discussed Lower Granite operation be implemented on nights when doing so will not cause Little Goose to go outside of MOP, Turner said, adding that the Corps would also like to begin refilling Albeni Falls reservoir on May 5. This operation will continue through May 13, he said, with the understanding that there are a couple of facets of the operation that will be revisited by the Federal Executives on Friday, and by the TMT at a conference call next Wednesday, May 2.

#### ***8. Water Temperature Trend Procedure.***

This topic was not discussed at today's meeting.

#### ***9. Kootenay Lake Operation in 2001.***

Turner said a situation has arisen since last TMT; basically, West Kootenay Power and B.C. Hydro have requested, through the International Joint Commission, to be allowed to alter the operation of Kootenay Lake this year to avoid spill during the freshet season, to store water during spring and summer and release it this fall. That will reduce Lower Columbia flows during spring and summer, Turner said. The Corps is developing a response and looking at the main issues; that response is being coordinated through COE Seattle District.

Wayne Wagner of Corps Seattle District went through the letter; in essence, it asks that storage take place up to elevation 1748, five feet over the normal elevation at that project. That additional water would be held until September 1. That is equivalent to about 8 Kcfs through the month of June in lower river flow, Wagner said; it would result in an additional draft of six feet from Grand Coulee in June, if that project was required to make up the shortfall. On the flip side, he said, we would get an additional 2 Kcfs in Columbia River flow during July, an additional 3 Kcfs in August and September.

This issue was discussed at a meeting yesterday, he said; at that meeting, Reclamation informed us that they will not support this proposal if it resulted in lower elevations at Grand Coulee this summer. We are now discussing the possibility of making Grand Coulee whole through increased outflow from Arrow, Wagner said; that discussion is, however, in its preliminary stages.

The IJC has asked us to do a quick evaluation and response, said Wagner, to determine if it is regionally acceptable. We thought the TMT would be an appropriate place to gather that input, he said, noting for the record that the Corps is in no way advocating that this operation be implemented.

Bob Hallock said the Fish and Wildlife Service views this as a real opportunity to explore an alternative operation at Kootenay Lake, which could have long-term benefits for sturgeon. McGrane said that, as long as this is essentially a resource swap, and Grand Coulee is made whole, Reclamation has no problem with the requested Kootenay Lake operation. Nielsen said the salmon managers would oppose this proposal if it reduces Grand Coulee storage and/or outflow; however, it may be acceptable if the net effect on Grand Coulee is zero. There would be no adverse impact to sturgeon, Hallock said. Mallette said she will need some additional time to analyze this proposal; however, at first glance, it would not appear to be beneficial, from a summer flow perspective in the Lower Columbia. If it is a net zero, would Oregon oppose this proposal? MacKay asked. My concern is timing, Mallette replied. Supposedly, it will be timing-neutral as well, said MacKay; if that is the case, BPA would not oppose this proposal.

If we pursue this, there will definitely need to be a public involvement process, so that we can get input from the farmers and other stakeholders who will be affected, Wayne Wagner added.

The group devoted a few minutes of additional discussion to the details and implications of the proposed Kootenay Lake operation. Ultimately, Mallette reiterated that she needs some additional time to consider this proposal, but her initial impression is that it would not benefit summer flows in the Lower Columbia. If they can augment flow from Arrow, such that the net effect is zero in terms of flow and timing, Bonneville would not oppose this proposed operation, said MacKay. That would certainly be the objective, Wayne Wagner observed. Ross raised the concern that the proposed August 31 Kootenay Lake elevation is two feet higher than normal; in effect, this proposal would shift the volume in that two feet of storage from August into September. Wayne Wagner replied that, according to his analysis, the worst case is that the effect of this operation on summer flows would be neutral, while in the best case, it could result in increased summer flows.

Is it fair to say that, if B.C. Hydro and West Kootenay Power can work out an operation such that the net effect on summer flow volume, timing and Grand Coulee elevation is zero, the salmon managers would not oppose this proposal? Wayne Wagner asked. I'll need to run this past the tribal commissioners, Martin replied; my initial reaction is that we would oppose this proposed operation, and would prefer to stick with the IJC base case.

How much time do we have before this decision needs to be made? Nielsen asked. It needs to be made some time in mid-May, Wayne Wagner replied. It sounds, then, as though we can leave it here for today, said Silverberg; B.C. Hydro will be receiving additional input from the TMT once various members have an opportunity to study the proposal in more detail; that input is needed soon. That's correct, Wayne Wagner replied – the decision needs to be made by mid-May, but before it can be made, we need to complete the public involvement process.

**10. Other.**

**A. Transport at McNary.** Paul Wagner reported that the Federal Executives have proposed McNary transport as a salvage operation in 2001, given the low flow and spill conditions that will occur in the lower river. In terms of the process steps needed to modify the permit, a Biological Opinion has been completed and attached with the permit, which requests an amendment to the existing transport permit. This package has been sent to Washington D.C. for approval, Wagner said. The requested date for the permit modification is April 26, tomorrow. Upon receipt of that permit, transport from McNary may start on an every-other-day basis, said Wagner, adding that he expects this operation to be the subject of additional discussion at the upcoming Federal Executives meeting.

**11. Next TMT Meeting Date.**

The next TMT meeting (a conference call) was scheduled for Wednesday, May 2 from 9 a.m. to noon. The next face-to-face meeting of the Technical Management Team was set for Wednesday, May 9 from 9 a.m. to noon. Meeting notes prepared by Jeff Kuechle, BPA contractor.

**TMT PARTICIPANT LIST**

**April 25, 2001**

Scott Boyd	COE	503/808-3943
Russ George	Water Management Consultants	503/253-1553
Robin Harkless	Facilitator	503/248-4703
Cathy Hlebechuk	COE	503/808-3942
Chris Ross	NMFS	503/230-5416
Donna Silverberg	Facilitator	503/248-4703
Rudd Turner	COE	503/808-3935
Paul Wagner	NMFS	503/231-2316
Ruth Abney	COE	503/808-3939
Robyn MacKay	BPA	503/230-3385
Christine Mallette	ODFW	503/872-5252
Kyle Martin	CRITFC	503/731-1314

David Wills	USFWS	360/696-7605
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**On Phone:**

<b>Name</b>	<b>Affiliation</b>	<b>Phone</b>
Margaret Filardo	FPC	
Pat McGrane	Reclamation	
Jim Nielsen	WDFW	
Kevin Nordt	PGE	
Mike O'Bryant	Columbia Basin Bulletin	
Maria Van Houten	ENRON	
Steve Wallace	PacifiCorp	
Greg Haller	Nez Perce Tribe	
Norm Semanko	Idaho Water Users	
Richelle Harding	D. Rohr & Associates	
Tim Heizenrater	ENRON	
Jiong Ji	Avista Energy	
Ken Kauffman	Consultant	
Bob Hallock	USFWS	
Wayne Wagner	COE Seattle District	