

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

May 8, 2002

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members.

Hanford Reach/Vernita Bar Update:

Chris Carlson reported on discharges out of Priest Rapids for April 22 through May 5. As requested, he added the average length and range of fish to his web-posted report. The fish are about the same size as when he last reported, roughly 43 mm. Emergence ended on April 25. The Grant County PUD's are working to minimize impacts to fish and smooth operations out, as there was a misunderstanding between the dispatcher and operators on April 29.

The USFWS reminded the group that USFWS, WDFW ([see clarification below](#)) and CRITFC don't agree with the Grant PUD's fish and flow management plan. USFWS stated that they do not feel the samplings are representative of fish in the reach.

[Clarification from Mr. Shane Scott, WDFW TMT representative: The WDFW is in support of the agreement. The WDFW was a partner in negotiating this agreement with various natural resource entities and Grant County PUD.](#)

Water Supply Forecast:

The River Forecast Center did not attend today's meeting, but data can be found on their website. Cathy Hlebechuk reported that the forecasts at Grand Coulee, the Dalles and Dworshak are up, Libby's forecast is down slightly, and Lower Granite remains at 81% of normal. The temperature forecast is uncertain.

Water Management Plan (WMP):

Action: The COE will send an email out to TMT when the WMP "comments" have been finalized, which should be next week. The COE's final draft of the Spring/Summer update was handed out. It includes updated histograms, the family of curves, and HYSSR model runs. Comments are welcome from TMT members. Oregon will send comments to the COE in two weeks.

Spill Priority List:

Dick Cassidy reported that the spill priority list has not changed from the last TMT discussion. It is as follows: The Dalles, Bonneville, Little Goose, Ice Harbor, John Day,

Lower Granite, and McNary. No forced spill is occurring, but modified patterns are in place at McNary for bridge work that is being done.

BPA asked the group to consider what the operation priority list should look like in the emergency event that spill would need to be cut. TMT will discuss this at the next meeting.

McNary Bridge Removal and Spill:

Due to problems, the COE expects bridge removal work at McNary to be completed Friday, May 10. Cathy H. noted that BPA has done a “fantastic” job of coordinating with the COE on this. She will continue to email any updates to TMT members.

Idaho Power Updates:

Jon Bowling reported that Brownlee is currently ten feet from full and working to refill to 2077'. The current operating plan is to draft no more than one foot from the highest elevation for the thirty-day spawning period (beginning May 20) of resident fish. The project may fill, but the one foot drafting range will remain. Idaho Power will then try to keep Brownlee full through June and July and save storage for August. Idaho Power asked about the possibility of a flow augmentation shaping agreement with BPA. BPA's position is still where it was in 2000; it is waiting for the completion of the Biological Opinion by NMFS for the operation of IPC facilities before deciding on whether to enter into a new shaping agreement. NMFS and Oregon feel the water out of Brownlee would be most beneficial to fish if released in July. TMT would like further clarification on the Brownlee issue and clarification of Idaho Power's choice to save water until August. At this time, unless there is an agreement to do otherwise, Idaho Power will draft to optimize the value of energy produced. Once Brownlee fills, the BOR water being released will pass through Brownlee. TMT members appreciated the input from Jon and hope to have further discussions with him as the season continues.

Action: Paul Wagner will report back to TMT on the status of the NMFS Biological Opinion with IPC.

Action: Tony Norris will provide the Salmon Managers with the BOR's spreadsheet for shaping water at Brownlee in August.

Tony reported that the BOR plans to spill roughly 300 KAF out of Lucky Peak. He will provide further information (e.g. fish benefits) to TMT at the next meeting.

Fish Status:

Adults: Many adult spring chinook have passed the Bonneville project (199,270!). The group discussed apparent effects of Bonneville spill and a fallback study on the movement of fish. The salmon managers have asked the University of Idaho to review this, as will NMFS. The delays are causing some concern, but everyone agreed that the information provided by the studies is needed.

Pat Frazier, ODFW, discussed chum emergence. The numbers slowed down during the last half of April. He believes the chum emergence has ended.

Action: The COE will change the spill teletype which has been holding elevations at 16.5', and remove this restriction. ODFW will work up the numbers for date of emergence completion and present it at the next TMT meeting.

Juveniles: The Upper Columbia steelhead ESU is of great concern to the salmon managers. They would like to see these fish pass through the system as quickly as possible, as they took a huge hit last year. Numbers for steelhead and yearling chinook increased on May 4; many more are still to come.

Flows in the Mid-Columbia:

The salmon managers are wrestling with balancing upriver and downriver fish needs and erratic weather and water to support them all. They posed the question to TMT of how to manage Grand Coulee given current conditions. The Biological Opinion calls for 220-260 kcfs flow range at McNary, but with well below normal temperatures throughout the basin resulting in a dramatic drop in natural flows this cannot happen without drafting Grand Coulee deeper than elevation 1240.

After discussion, the salmon managers recommended the following operation: a minimum flow of 135 kcfs at Priest Rapids including weekend operations; use the 4 feet of available water at Grand Coulee to maintain 220 kcfs flow target at McNary but try to stretch the volume into next week unless the freshet begins.

Although the action agencies could not commit to the weekend operation of a 135 kcfs minimum without Grant County on board or commit to meet the 220 kcfs flow at MCN without going below 1240 unless greater than predicted snow melt occurs, they did understand the request and will attempt to meet the proposal. TMT members will touch base on operations over a conference call Monday, May 13 at 3 pm. The call-in number will be posted on TMT's web site.

System Status Update:

Reservoir operations: Lower Granite will have problems at Unit 1 for 4-8 weeks. Unit 5 should be back online in mid-June. The powerhouse capacity will be around 80k during that time. There is a proposal out to extend the RSW test by six days – no objections were raised at the FFDRWG meeting last week.

Kyle Martin reported that the tribes might request one last commercial fishery for the season, this Friday and possibly Saturday. He will send an SOR out as soon as it is available.

Power: Action: Scott Bettin will send a proposed emergency spill shutoff list (in the event one is needed) to Ron Boyce for discussion at the next FPAC meeting.

Water Quality: The COE is working to understand why gas levels crept up to above gas waiver levels at Lower Monumental. They took necessary actions to reduce the levels, but it is yet unclear why they rose. Dick Cassidy will update TMT when they have more certainty.

Other:

Lower Granite:

The downstream lock sill elevation is 618'. The COE has a navigation requirement to have at least a 633' tailwater elevation so there is at least 15' of water at all times. When flows are low the tailwater has been going below 633'. In order to provide the required water, the COE must increase the Little Goose operating range to 634' – 635'. As flows increase, the COE will evaluate the situation and reduce the Little Goose operating range accordingly.

Next Meeting, May 22:

Agenda items:

- Hanford Reach/Vernita Bar Agreement
- Water Supply Forecast
- Review Current System Conditions
- Review Spring Treaty Fishing
- WMP Final Comments and Spring/Summer Update Comments
- Boise Water Information
- Status of Biological Opinion on Idaho Power Operations

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES
May 8, 2002
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM
HOUSE
PORTLAND, OREGON**

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

DRAFT

1. Greeting and Introductions

The May 8 Technical Management Team meeting was chaired by Cathy Hlebechuk 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 Hlebechuk at 503/808-3942.

2. Hanford Reach/Vernita Bar Update.

Chris Carlson said that, for the week of April 22-28, average flow at Priest Rapids was 164 Kcfs; the average fork length of the fish captured during index seining (40 in all) was 42.9 mm, unchanged from the previous week. A total of eight juvenile fall chinook were found during random sampling, three of which were mortalities. Carlson noted that the operation changed from a 150 Kcfs minimum to a 40 Kcfs flow band over the weekend. The end of emergence occurred on April 25, he added.

For the week of April 29-May 5, the 150 Kcfs minimum was in effect on April 29 and April 30, Carlson said, although, due to operator error, the average flow on Monday was only 113.8 Kcfs. We went to a 60 Kcfs flow band for May 1-3, he said; on May 2, the difference between minimum and maximum flows was 93 Kcfs, again due to operator error. Average flow for the week was 148 Kcfs. We went to a 40 Kcfs flow band on Saturday and Sunday, he said. A total of 15 random sites were monitored this week, Carlson said; a single juvenile fall chinook was found. A total of 241 fish were sampled during our index sampling, average fork length 45.5 mm. As of May 5, we're at 81 temperature units toward the 400 needed before the end of the fish protection operation; water temperatures have been running in the 8-degree C range, said Carlson, about one degree less than the average for this date.

The operators still look like they could do a bit better, observed Paul Wagner – I hope you're working on that? We certainly are, Carlson replied – coordinating the switch between project minimum flow and the various flow bands is not a simple operation, and when something does happen, we're working as hard as possible to minimize the impact on fish. Don Anglin noted that the U.S. Fish and Wildlife Service does not feel that the

sampling program implemented by Grant County PUD this year is representative of the true stranding and mortality picture in the Hanford Reach. In response to a question from Scott Bettin, Anglin said he does not have any hard physical evidence on which to base that assessment.

3. Water Supply Forecast and Weather Update.

Cathy Hlebechuk reported that the TMT website was updated this morning to reflect the May final forecast; the forecast went up about 2% at Grand Coulee and The Dalles. The May final forecast is 98.2 MAF at The Dalles, 92% of normal, and 62.3 MAF at Grand Coulee, 99% of normal. The Corps has revised the Libby forecast downward to 6.2 MAF, 97% of average; at Dworshak, upward slightly to 3.2 MAF, 127% of average. At Lower Granite, the May final forecast is 24.2 MAF, 81% of normal, the same as the April final forecast.

With respect to the weather forecast, Hlebechuk said the current 10-day forecast shows little or no prospect of significant warming or precipitation. Keith Underwood noted that Spokane received 17 inches of snow yesterday; parts of the Idaho mountains received more than 20 inches. Overall, at least for the next 10 days, the weather is expected to be mild to cool, which means that, if this forecast is correct, the freshet will continue to be delayed.

4. 2002 Water Management Plan.

Rudd Turner said the Corps attorneys have now commented on the 2002 Water Management Plan; once the legal comments are received from Reclamation and BPA, he said he will make the final draft available via the TMT website, and will send out an email to the TMT membership letting them know when that posting occurs, probably next week.

Turner also distributed a final draft of the spring/summer update to the 2002 WMP, and went briefly through the changes that have been made to this document. Ron Boyce asked whether there will be an opportunity to comment on the update; Turner replied that the Corps requested comments at the TMT meeting two weeks ago, and has yet to receive any. My understanding was that the update would be posted to the website when available, and that comments would be submitted either orally or in writing, Boyce said. We'll still respond to your comments, if you want to submit them, said Tony Norris. So this is a final draft of the update, then? Shane Scott asked. Turner stated that the COE considers this our final crack at this, but if you want to comment, feel free. I'll provide any comments within two weeks, said Boyce.

5. Spill Priority List.

Dick Cassidy said there had been some talk of the salmon managers re-prioritizing the current spill priority list of The Dalles-Bonneville-Little Goose-Ice Harbor-John Day-Lower Granite-McNary. Boyce said the salmon managers have not

decided what, if any, changes need to be made. Has there been any forced spill anywhere? Boyce asked. No, Bettin replied, although fish spill is occurring; there has been some spill occurring at McNary at night due to the ponding for the bridge removal work. If an emergency does occur, such that more capacity is needed, where would the salmon managers prefer to cut spill first? Bettin asked. We'll discuss that at next Tuesday's FPAC meeting, Boyce replied.

6. McNary Service Bridge Removal Contract Update.

There are four bridges to be removed, said Hlebechuk; it was supposed to be an easy thing, with the last bridge scheduled for removal today. Of course, it's never that simple, she said; the contractor was unable to get underneath the bridge in Bay 2 last week, and had to move on to the bridge over Bay 21. They got 21 out on Monday, she said, got 2 off yesterday, will remove the bridge over Bay 1 tomorrow, and should have the bridge over Bay 22 out by this Friday. The removal operation is requiring us to reduce flows at McNary, Hlebechuk said. There is also another problem, said Bettin – the hoists in Bays 1, 2, 21 and 22 have failed, so they're unable to spill from those bays. We need to check on that, said Hlebechuk; we'll find out the details of what's going on, and will send out an email to the TMT membership.

7. Current System Conditions.

Wagner said adult chinook passage at Bonneville has improved since the last meeting of this group; right after our last meeting, adult passage jumped to 16,000 fish per day, then to 27,000 fish per day, he said. We're currently at 199,270 fish passed, which compares to a 10-year average of 56,000 fish by this date; in short, the adult picture looks a lot better than it did the last time we looked at this information, said Wagner.

Boyce said there is some concern among harvest managers that the spill test may be causing delay in adult passage at Bonneville; he said it has been suggested that the University of Idaho investigate the incidence of fallback at Bonneville this year. Bettin noted that the fish seem to be avoiding passage on high-spill days and waiting for the lower spill days. That may be all it is, Boyce agreed; however, there may be a request for a more formal investigation of the effects of the Bonneville spill test on adult passage.

The group devoted a few minutes of discussion to this issue; ultimately, Wagner reiterated that the issue is under investigation, and further reports will be provided as more information becomes available. Boyce said that, in his view, the juvenile passage information provided by the Bonneville spill test is too important to suspend the test simply because it may be causing a few days of delay in adult passage at Bonneville.

Pat Frazier from ODFW then updated the group on the current status of chum emergence; he noted that seining catches have fallen steadily since mid-April, and the feeling is that, for all intents and purposes, chum emergence is now complete in the Ives/Pierce Island complex. The bottom line is that there is no longer any impact in

Bonneville operations on emerging chum and chinook, Boyce said. Does TMT agree that the COE can issue a new teletype to the project, eliminating the need to maintain a minimum tailwater depth? Rudd Turner asked. Yes, was the reply. In response to another question, Frazier said he will calculate the end of emergence at the Ives/Pierce Island complex and will provide that date to the Corps.

Moving on to current combined juvenile passage indices, Wagner said that, at McNary, the hot topic of the moment is flows in the Mid-Columbia and the need to maintain higher flows to provide good passage conditions for listed Upper Columbia steelhead through the Hanford Reach. These fish really took a licking last year, Wagner said; we don't want to see that happen again this year. We have a window of approximately three weeks, beginning now, when Upper Columbia steelhead outmigrate successfully. We've only seen 2% of the predicted total run to date, he said; we want to see the project operators provide good passage conditions for these fish over the next three weeks.

At Lower Granite, Wagner continued, juvenile chinook passage is generally on the rise; Little Goose is following more or less the same pattern. We're seeing more fish at Lower Monumental this year than we have in years past, he said; the RSW appears to be doing an amazing job of passing fish. Turner noted that there is no spill at Lower Monumental this year, causing inriver migrants to move through the powerhouse and juvenile bypass facilities. Passage at Ice Harbor is slow to date, pretty good at McNary, John Day, The Dalles and Bonneville, Wagner said. Wagner also touched on juvenile steelhead passage indices, noting that, in general, steelhead passage is lower than expected for this date.

So it's fair to say that we have a lot of fish in the system, currently, with a lot more still to come? Boyce said. That's correct, Wagner replied.

The next major issue to discuss is Mid-Columbia flows, said Wagner; as you're aware, the current elevation at Grand Coulee is just over 1243 feet, and Reclamation has expressed their intention to draft that project no lower than 1240 feet in 2002. This fact, combined with a somewhat erratic runoff pattern to date, has made for some interesting challenges, in terms of maintaining reasonable flows at Priest Rapids and McNary. The predicted week-average flow at McNary is 214 Kcfs this week, less than the 240 Kcfs target in the BiOp; achieving that average flow will require the full four-foot draft at Grand Coulee, which means lower flows next week, Wagner said. He noted that inflows to Grand Coulee have been somewhat higher than expected recently; NMFS has been talking with Reclamation, the upriver tribes and with the other salmon managers about what to do.

Where we are currently is that we have agreement that a minimum flow of 135 Kcfs will be maintained at Priest Rapids, during the week and on the weekend, said Wagner; we will use the available volume at Grand Coulee to keep McNary flows as close as possible to 220 Kcfs. We would like to retain a portion of the Grand Coulee volume to keep flows up through the first part of next week, at which point we can

discuss the operation again, Wagner said. Maintaining 135 Kcfs as a minimum at Priest Rapids shouldn't be a problem over the next week, Wagner said; he added that he will coordinate this operation with Grant County PUD. What are the prospects of meeting the 220 Kcfs at McNary through the weekend? Boyce asked. Given the uncertainty in the forecast, and the lack of an agreement with Grant County PUD, we can't make any guarantees, Bettin replied; we can, however, agree to 220 Kcfs as a target at McNary. Kyle Martin noted that the next four to five days are the most critical; his view of the current weather forecast is that air temperatures should begin to warm next week, causing inflows to rise. Boyce suggested a TMT conference call at 1 p.m. on Monday afternoon to review current weather conditions; it was so agreed.

So we will continue to draft Grand Coulee through the weekend? Litchfield asked. If necessary, Wagner replied – as I mentioned earlier, inflows to the project were higher than expected last week, so hopefully that will continue, and we won't have to draft the project as much as we thought. Turner reiterated that this recession in flows is a natural event, and is not due to project operations. Hlebechuk added that the current Dworshak outflow will be reduced from its current level of 14 Kcfs beginning May 16, so that the project can begin to refill.

Rudd Turner reminded everyone that what we are seeing is a natural recession in flows prior to the start of the freshet/snow melt period. Scott and others agreed that this was a useful perspective to keep in mind.

Wagner touched briefly on the current cumulative juvenile passage indices for steelhead and chinook; he said that, in general, the cumulative indices are on the rise, and are poised for takeoff.

Vern Perry reported on the status of the Lower Granite unit outage; they have confirmed that there is a fault in the winding of Unit 1, and are removing the shrouds today, he said. They'll be testing through early next week to see whether it's something they can repair, Perry said; depending on how bad the fault is, it could take at least a month and as much as three months to get the unit back on line. Unit 5 should be back on-line by June 20, Perry said. That gives us a Lower Granite powerhouse capacity of about 92 Kcfs? Steve Pettit asked. It's closer to 80 Kcfs if we stay within 1% peak efficiency, Perry replied. How much can we spill at Lower Granite and stay within the gas cap? Boyce asked. With the RSW in operation, we can spill up to 63 Kcfs and still stay within the gas cap, Hlebechuk added. The longer it stays cold, the higher the spike will be when runoff finally begins, Pettit observed. What if flows at Lower Granite hit 200 Kcfs? The RSW should be able to stay in the water up to about 300 Kcfs, Bettin replied. In response to another question, Turner said the Corps is planning to extend the Lower Granite RSW test by one week, due to the disruption caused to the test by the unit outages at Lower Granite. Any chance of accelerating the repairs at Unit 1? Boyce asked. One month is the soonest we can do, Perry replied.

Hlebechuk reported that the last seven day's average flows at Lower Granite, McNary and Priest Rapids were 73 Kcfs, 224 Kcfs and 148 Kcfs, respectively. Libby is at

elevation 2382 feet and releasing 4 Kcfs; outflow will be increased to 8 Kcfs beginning May 15. Albeni Falls is at elevation 2056, releasing 28 Kcfs, and on track to refill by June 30. Dworshak is at 1515 feet, has filled a little over a foot since May 1, and is releasing 14 Kcfs. The plan at this point is to reduce outflow from Dworshak to just over 3 Kcfs beginning May 16, she said; that should allow us to refill the project by June 30. We will re-assess that operation next week, said Turner; we may want to keep discharge up at that project a bit longer, given the fact that the runoff forecast keeps edging up at that project.

The current Hungry Horse elevation is 3515 feet, said Tony Norris; we plan to increase discharge from Hungry Horse next week from 6.2 to 7.2 Kcfs to avoid spill at that project. He added that Reclamation is unwilling to consider drafting Banks Lake at this time, due to heavy recreational use on that reservoir over the next several weeks. What's the minimum elevation needed to maintain full use of all the boat ramps? Boyce asked. We need an elevation of at least 1567.5 feet, Norris replied; otherwise the businesses around the lake begin to suffer.

Will there be any more treaty fishing seasons? Bettin asked. They're having a Compact conference call as we speak, Martin replied; it looks like we'll have a one- or two-day commercial fishery later this week, and that it will be the last of the year. He said an SOR covering the fishery will be submitted to the action agencies once that decision is made.

Bettin said everything is fine, with respect to the status of the power system. Moving on, Cassidy said the most recent water quality information is available via the TMT homepage; in general, there have been a few exceedances at McNary and Lower Monumental over the past two weeks, caused by restrictions imposed by the bridge removal work at McNary, and by an unknown cause, possibly relating to 24-hour spill at Little Goose, at Lower Monumental. In response to a question from Boyce, Cassidy said the Corps has been adjusting the Little Goose spill volume both upward and downward in an effort to meet the 115% forebay TDG standard at Lower Monumental.

8. Snake River Fish Operations.

This topic was covered during a previous agenda item.

9. Idaho Power Update.

Jon Bowling of IPC described recent changes to the Idaho Power organization; in response to a question from Boyce, Bowling said he can be reached at 208/388-2905. Bowling reported that Brownlee is currently at 2067 feet, 10 feet from full; we're starting to refill from 2064, the May 1 flood control elevation. We should be released from our 9 Kcfs fall chinook minimum flow on May 15, said Bowling; at that point, emergence will essentially be complete. Brownlee inflows are currently 14 Kcfs-15 Kcfs, which is pretty low for this time of year. As soon as the fall chinook minimum flows end, we may begin some flushing flows to move the fry out, said Bowling, raising flows to 11 Kcfs for a

certain period each day. That may or may not occur, said Bowling; we're talking with the Fish and Wildlife Service right now.

Once the fall chinook protection operations end, said Bowling, our plan is to get Brownlee full as quickly as possible. He noted that, whatever Brownlee's project elevation is on May 20, Idaho Power has a self-imposed draft limit of one foot over the next 30 days, to protect resident fish spawning in the reservoir. We can, however, fill, he said; again, the plan is to refill as soon as possible, and stay full as long as possible, at least through July. We will draft the project only for emergencies and to meet load, he said, saving our storage until August.

In the absence of an agreement with BPA, said Bowling, we will operate the project for power. The status of the agreement is that it is in limbo, currently, he said; the company's position is that if BPA wants to send us a reasonable proposal, we're willing to look at it, and work with BPA to get it done. What is the status of the agreement, from BPA's standpoint? Boyce asked. We're waiting to see how NMFS assigns responsibility for this operation through its Hells Canyon Biological Opinion, said Bettin. My understanding is that the BiOp has been on hold for some time, pending the outcome of other negotiations, said Wagner – there is a conceptual disconnect between water being provided for salmon flows, but then impounded and used for power generation. Bowling said that, as long as Brownlee is full, any water that is provided from the Upper Snake will be passed through.

What issues need to be resolved in order for the Snake River BiOp to be finalized? Kyle Martin asked. I'm not sure, but I'll try to find out, and will report back at the next TMT meeting, Wagner replied. How much water would have to be shaped in order to be fully delivered from the Upper Snake? Boyce asked. We expect our total Upper Snake contribution to be 300 KAF this year, Norris replied – most of that is coming out of the Boise and Payette systems. We have started a release of 300 cfs above what we would normally be releasing from Arrow Rock and Lucky Peak reservoirs for resident fish, Norris said; that will total approximately 60 KAF if it runs through August. I'm unaware of the biological basis for that operation said Boyce – could you provide some further information about which species you're trying to protect, and what this water is intended to provide biologically? It was agreed that Norris will provide an update at the next TMT meeting.

Boyce said the salmon managers would prefer to release water from Brownlee earlier in the season, and release water from Dworshak later in the season, due to temperature concerns. Norris reiterated that, in the absence of a BPA/IPC agreement, there is little flexibility to accomplish that requested operation. And absent that agreement, the likely operation will be to fill Brownlee by July 1, pass inflow and maintain full pool through July, then begin drafting for power production after August 1? Wagner asked. That's correct, Bowling replied.

10. New System Operational Requests.

No new System Operational Requests were submitted prior to today's meeting.

11. Recommended Operations.

Recommended operations were discussed during a previous agenda item.

12. Other.

A. Little Goose Pool Operations. There is a problem in the Lower Granite tailwater, said Hlebechuk; we need at least 15 feet of water over the sill for navigation, which means a pool elevation of at least 633 feet. We have dropped slightly below that elevation frequently in recent weeks, Hlebechuk said; at lower flows, this problem tends to occur daily, and we need to correct it. Our plan is to raise Little Goose's minimum forebay elevation by one foot, from 633 feet to 634 feet, she said – that's one foot above MOP. It's a safety issue, she said; if we don't have 15 feet of water over the sill, barges can bump. After a brief discussion, no TMT objections were raised to this operation; Hlebechuk said the Corps will revisit this operation once Snake River flows begin to rise, and will let the TMT know when changes occur.

13. Next TMT Meeting Date.

It was agreed to convene a TMT conference call at 1 p.m. Monday, May 13. The next face-to-face meeting of the Technical Management Team was set for Wednesday, May 22. Meeting summary prepared by Jeff Kuechle, BPA contractor.

**TMT ATTENDANCE LIST
MAY 8, 2002**

Name	Affiliation
Don Anglin	USFWS
Scott Bettin	BPA
Brian Black	Spokane Tribes
Ron Boyce	ODFW
Mike Buchko	PowerEx
Ruth Burris	PGE
Chris Carlson	Grant County PUD
Dick Cassidy	COE
Larry Drew	PP&L
Margaret Filardo	FPC
Russ George	Water Management Consultants Inc.

Laura Hamilton	COE
Scott Hanson	BPA
Richelle Harding	D. Rohr & Associates
Robin Harkless	Facilitation Team
Cathy Hlebechuk	COE
Tim Heizenrater	UBS
Jiong Ji	Avista Energy
Jim Litchfield	Consultant (Montana)
Kyle Martin	CRITFC
Kevin Nordt	PGE
Brian Norgard	TransCanada Power
Tony Norris	USBR
Mike O'Bryant	Columbia Basin Bulletin
Rick Pendergrass	BPA
Steve Pettit	IDFG
Dennis Rohr	D. Rohr & Associates
Shane Scott	WDFW
Donna Silverberg	Facilitation Team
Craig Sprankle	Reclamation
Rudd Turner	COE
Keith Underwood	Spokane Tribe
Paul Wagner	NMFS
Steven Wallace	PacifiCorp