

TECHNICAL MANAGEMENT TEAM

BOR: Kim Fodrea \Pat McGrane

NMFS: Paul Wagner \Chris Ross **BPA:** Scott Bettin \Robyn MacKay

USFWS: Marv Yoshinaka \Bob Hallock \Susan Martin

OR: Christine Mallette \Chuck Tracy **WA:** Jim Nielsen **ID:** Ed Bowles \Steve Pettit

MT: Jim Litchfield **COE:** Cindy Henriksen \Rudd Turner \Dick Cassidy

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM MEETING NOTES

July 20, 2000

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

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

DRAFT

**TECHNICAL MANAGEMENT TEAM
RE: July 20, 2000 Conference Call**

FACILITATOR'S NOTES ON FUTURE ACTIONS

Facilitator: Patricia McCarty

The July 20th meeting was conducted by conference call.

The following is a list of items the Technical Management Team (TMT) discussed at its last meeting that will require future action or discussion.

Minutes & Facilitator's Notes:

The minutes from the July 6th and 13th meetings were available for review on the TMT web page. In the future, review of the minutes will not be a regular agenda item. The minutes will always be posted on the TMT web page when the COE receives them. Rather than the COE making paper copies for everyone and distributing the copies at the meeting, members will review the

minutes prior to the meeting and the minutes will be discussed only if someone requests a change.

Brownlee Operation Update

The salmon managers presented SOR 2000-26, requesting continuance of the current operation at Brownlee into August. Because the request was beyond the BPA/IPC agreement the terms of that agreement were not discussed. Nengjin Liu requested a formal letter from Oregon to continue the flows, and an opportunity to discuss the proposal within IPC before giving a response.

ACTION: Christine Mallette will work with IPC on the letter. Nengjin will report on IPC's response at the next meeting.

McNary Summer Operations and Temperature Test

Oregon DEQ, Washington DOE and CRITFC submitted a request for test operations to reduce temperatures in the juvenile bypass system. Earlier this week a conference call on this request resulted in an agreement on the proposed operation that varies somewhat from the proposal. The agreement will be posted on the TMT web page. The COE clarified that the purpose of the test is to see how effective this operation is in lowering water temperatures, and though there may be some biological data gathered, the focus is on temperature in the juvenile fish facility. To avoid spill when feasible in light of the forebay restrictions on the weekends during the test, the COE will authorize, on an as-needed basis, the operation of the north powerhouse units 11-14 outside of 1% peak efficiency, halfway to full powerhouse overload. The test will begin this Saturday.

ACTION: The COE will have a conference call on this test next week, and at that time, it will determine the best place to post the test results. Rudd Turner will report on the temperatures at McNary at the next TMT meeting.

Dworshak Operations

Cindy Henriksen reported on the change in spill at Dworshak. The spill is now through the Regulating Outlets, total project outflow remains near 48° F, with the flow at 12.3Kcfs, to stay within the TDG standard. This change was implemented Friday, July 14th.

Current System Conditions

Libby operations – Libby is still releasing 8Kcfs and will continue to do so. There was acknowledgment that the reservoir may miss refill by more than the earlier projections. Montana will continue its internal discussions about its needs in August and September and will report back to TMT. In the sturgeon larval studies, sampling will continue to the end of July.

The BOR and the COE gave updates on the conditions at their projects. Dick Cassidy, from the COE, reported on TDG. Spill at Bonneville will be increased because the TDG level has dropped below 115%. Temperature data on Dworshak and Lower Granite is available by links on today's agenda on the TMT web page. In response to a question about the placement of gauges, Dick Cassidy looked up the distance of the gauges from Dworshak. He did not get a chance to share that information while the call was in session. Here's what he found: The Peck gauge is 4.9 miles from Dworshak dam, and the Lewiston gauge is 38.3 miles from the dam.

Paul Wagner gave an update on fish migration. The numbers are still good at Lower Granite, although it appears the run is past its peak. The numbers for wild fish seem to indicate that around two-thirds of their run is past.

Recommended Operations

The SOR's on Brownlee and McNary are covered above. The salmon managers made a request for a higher flow than is projected for McNary for the week ending July 30th. After discussion, it was agreed that flows will remain as indicated on the COE spreadsheet – 155Kcfs for the week ending July 30th.

Next Meeting and Agenda

The July 27th TMT meeting will be by conference call.

Agenda items:

- Update on McNary Temperature Test
- Response from IPC on SOR for Brownlee
- Discussion of planned field trip to Pierce Island on August 3rd.

I. Greeting and Introductions

The July 20 Technical Management Team meeting, held at the Custom House in Portland, Oregon, was chaired by Cindy Henriksen of COE and facilitated by Patricia McCarty. 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 Henriksen at 503/808-3945.

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

II. Review of Minutes from July 6 and July 13 TMT Meetings.

The group spent a few minutes going through the minutes from the last two TMT meetings. Henriksen asked that any changes be submitted to her by close of business Friday, July 21. It was further agreed that, from now on, TMT participants will take their own copies of the meeting minutes from the TMT website, and will raise any comments or concerns about the minutes at the beginning of each meeting.

III. Brownlee Operations Update.

Paul Wagner noted that the end of the agreement covering the shaping of the 237 KAF, as well as any pre-shaping required for the 427 KAF in Upper Snake water, is at hand. We're now entering the realm where there is no formal agreement covering Brownlee operations, he said; SOR 2000-26 was written to say "don't stop," basically.

The Corps has not yet received SOR 2000-26, said Henriksen. Wagner went briefly through the contents of this SOR, which was posted to the Fish Passage Center webpage on July

18. SOR 2000-26, supported by ODFW, USFWS, WDFW, NMFS and IDFG, requests the following specific operations:

- Request that Idaho Power Company continue to draft Brownlee Reservoir through the end of August for the benefit of the subyearling fall chinook migration. The draft rate and reservoir elevation should take into consideration the ending reservoir elevation necessary to assure the provision of the minimum flow of 9 Kcfs for fall chinook migration and spawning in the fall in Hells Canyon.

This is very different from what we discussed last week, when we talked about going down to 8.9 Kcfs to implement the BPA contract, said Nengjin Liu of Idaho Power. We would need to get a letter stating that this is the official position of the States of Oregon and Idaho – ODFW and IDFG – before we can formally reply to it, he said. Christine Mallette said ODFW supports this SOR; Liu reiterated that he would like to see a formal request from the State of Oregon, so the request can be documented by IPC. Recreational users of the reservoir don't always understand the reasons we do things, he said, hence the need for documentation. Once the official request is received, he said, we can evaluate our ability to accommodate it, and our ability to return to elevation 2059 by the end of September.

Part of Idaho Power's agreement with BPA specifies that providing flows for the subyearling migration is supposed to be revenue-neutral, said Wagner. True, said Liu; after the delivery of the Upper Snake water, IPC is entitled to receive power back from BPA. However, Hells Canyon outflow has to be 6.5 Kcfs plus the pass-through water, which means IPC needs to release 8.9 Kcfs from Hells Canyon in order for the agreement to take effect, Liu said. That probably won't happen until some time in September, said Scott Bettin – your discharge will be too high to allow us to return that energy. We plan to comply with the contract provisions, said Liu. In that case, we'll give you the energy, said Bettin.

Henriksen said it was her understanding that NMFS was going to review these contract stipulations at today's meeting – have you found some justification in the BPA/Idaho Power agreement that would allow this SOR to be implemented? she asked. No, Wagner replied – the reason this was added to the agenda is because Nengjin said, at last week's TMT meeting, that this is what IPC was planning to do. We would rather not have Hells Canyon outflow decreased right now so the energy exchange can occur, said Wagner – that's not in the interest of the fish migration.

Idaho Power is flexible on this, but the bottom line is that IPC needs this energy exchange, said Liu. We would always like to see flows higher, but we also need to get this energy exchange. You can purchase energy, said Bettin – you will also receive energy when you meet the provisions of the contract.

It sounds like this is a request for more than 427 KAF, said Henriksen. Nengjin has been clear all along that IPC will be passing inflow in August, so is this a request for more than 427 KAF? The 427 KAF was essentially Upper Snake water, Wagner replied – I don't think the Brownlee portion was ever viewed as part of that. We know IPC is going to produce their 427 KAF by the end of this month, said Henriksen; I'm trying to figure out where this water is

supposed to come from. How can we strike this deal, at the TMT level? There is no formal agreement that covers this; it falls under our ability to be flexible, in season, Wagner replied – what I'm hearing from IPC is that implementing this SOR, and continuing to draft Brownlee Reservoir, is in their interest as well, from an energy demand perspective.

This year, we're not sure we can do that, said Liu – again, we want to see an official letter from Oregon before we can make such a commitment. We need to evaluate the request, then talk to you at next week's meeting. Is it a problem to get a letter from Idaho and Oregon? Marv Yoshinaka asked. I can certainly pursue that, said Christine Mallette.

That is something of an unusual request, given the fact that both IDFG and ODFW support this SOR, noted Jim Nielsen. Our concern is recreational users in eastern Oregon, said Liu – we want additional documentation that this operation is the result of a request from the State of Oregon. So you're looking for something with the state seal on it? Bettin asked. Essentially, yes, Liu replied. I've heard Christine say she will work on that, said McCarty. Once that's received, we can get back to you as to whether or not this is doable, said Liu. I'll work internally, and with Nengjin, to make that happen. said Mallette. Can this item go on next week's TMT agenda? McCarty asked. That would be fine, Wagner replied.

IV. McNary Summer Operations and Temperature Test.

Rudd Turner said the Corps had received SOR WQ-1 earlier this week. This SOR, supported by Oregon DEQ, Washington DOE and CRITFC, requests the following specific operations:

- McNary Dam: Do not operate Units 1 and 2 daily during 1000-2400 hours, to reduce intake of higher temperature forebay water into the juvenile bypass system. Continue this operation until evaluation of temperature changes in the bypass system is complete.

We convened a conference call on Tuesday afternoon, said Turner, involving BPA, NMFS, WDFW and the Corps, as well as the co-authors of the SOR. We reviewed the current situation at McNary, and agreed that there is an opportunity, over the next few days, to implement this SOR, because of current conditions at the project. Two of the conference call participants were tasked to develop a study plan for this test; that plan has now been produced, and is available via the TMT website.

What we're proposing is that, from today through July 31, McNary Units 1 and 2 would be turned on, then shut off, on a two-day, alternating treatment basis, according to the provisions of the SOR, Turner continued. We will then monitor temperatures at several locations – the dewatering structure at the powerhouse, at the juvenile fish separator and three other locations. The monitoring data produced would be the benchmark for the evaluation of the effectiveness of this operation; we will produce a report on the effects of the operation subsequently, said Turner.

If TMT agrees this is a reasonable thing to do, we will go forward with the test, said Turner; the first Units Off configuration will occur this Saturday and Sunday. There is also a 2.5-foot forebay restriction that will make this a tight operation, for pelican nesting, said Turner. Last year, we stopped that operation in mid-July, so we may be able to remove that as a restriction. There is also a hard constraint to hold the reservoir at elevation 339-340 (the upper foot) for hydroplane racing at Tri-Cities, he said; given current flows, that leaves us near full powerhouse capacity. If flows are higher than expected, there is a possibility of some spill; we don't know that will happen, but we can't guarantee that it won't, he said.

In addition, Unit 2 is scheduled for 6-year maintenance beginning July 30, said Turner; the project is on a very tight schedule, and they don't want to delay that maintenance work. Kyle Martin asked if it would be possible to start the test tomorrow, rather than Saturday, given expected temperature conditions. BPA would not support that, from a load perspective, said Bettin. Wagner said NMFS would prefer to stick to the original schedule as well.

Have you considered operating outside 1% to avoid spill? Bettin asked. We brought it up on the conference call, but there was no support for it, Turner replied – that may be something for this group to discuss. We can also talk about when to spill, he said. There is a concern about the effects of low-level spill on predator dispersion, as well the effects of operation outside 1% on gatewell turbulence, said Nielsen. If we're at low overload, NMFS' feeling is that it wouldn't be much of a problem, said Wagner. If you're not talking about full overload, that would probably reduce that concern, Nielsen agreed. So your preference would be to operate some of the North Shore units at low overload, rather than spilling? Turner asked. Correct, Nielsen replied. It was agreed that Units 11-14 would likely be those run at low overload (a point halfway between 1% peak efficiency and full overload) during the units-off portion of the test, from noon to 10 p.m.

Is this operation acceptable to the TMT? McCarty asked. Nielsen and Wagner replied in the affirmative. In reply to a question from Mallette, Russell Harding said he has been involved in the development of this plan, and he is happy with it. Sounds like we will begin implementation of the test this weekend, said Turner.

V. Dworshak Operations .

Henriksen said that, last week, the TMT discussed changing the spill pattern at Dworshak from the spillway to the regulating outlets, to avoid withdrawing water from the high-nutrient strata of the reservoir. I worked with Dave Statler and Paul Wagner to develop a proposal to change spill at Dworshak to the regulating outlets, rather than the spillway, she said; we agreed to change all of the spill to the regulating outlets, despite the fact that the selector gates would have to be moved up closer to the surface to maintain a temperature of 48 degrees downstream. That change was made on Friday, and we've been running that way ever since, said Henriksen. There is some concern about the fact that the regulating outlets produce a slightly higher level of TDG with a smaller amount of spill; we're still examining that operation to see its effects on TDG. We're

releasing 12.3 Kcfs and trying to keep TDG below 109%, she said. That's because of IDEQ's concern about the +/- 1% accuracy of the gauges? Nielsen asked. Yes, Dick Cassidy replied. It seems somewhat capricious that IDEQ would set a standard of 110%, then ask you to manage to 109%, said Nielsen. That's an issue you should take up with IDEQ, Henriksen replied.

VI. Current System Conditions .

Henriksen said Libby continues to release 8 Kcfs; there was a flurry of activity late last week, during which we discussed the possibility of reducing Libby outflow to 7 Kcfs and having B.C. Hydro make up the other 1 Kcfs, because Lake Kookanoosa is expected to reach a maximum elevation of 2437. However, at this point, the Corps' plan is to maintain the 8 Kcfs outflow from Libby, Henriksen said. I've got the State of Montana working on a rampdown rate for September and beyond, said Litchfield; they understand what's going on. However, 20 feet down, to elevation 2439, is the maximum we're allowed to take, said Bettin. Montana understands the 20-foot draft limit, said Litchfield; they also feel that this is an extraordinary year. Basically, we guessed wrong on the forecast, said Bettin. That's correct, said Litchfield – right now, they understand what's happening, and they want to maintain 8 Kcfs. They were willing to go to 7 Kcfs if there was an Arrow swap, he said, but my understanding is that that is probably not feasible.

Is there any update on the sturgeon larval studies? Henriksen asked. They were continuing to capture eggs as of last week, Yoshinaka replied; they have also captured a few larvae from the hatchery release. Sampling will continue through the end of July, he added. Any information on fish condition? Henriksen asked. I didn't get that from Bob Hallock, Yoshinaka replied. So the decision about next year's sturgeon operation will be made at the November recovery team meeting? Litchfield asked. Correct, Bettin replied. But we won't have any information from this year's test on which to base next year's operation? Litchfield asked. Correct, Bettin replied.

Grand Coulee is at 1285 feet, and operating to meet the 165 Kcfs target at McNary, said Kim Fodrea; Hungry Horse continues to release 6 Kcfs. On the Upper Snake, Milner is still releasing 1.5 Kcfs, on the Boise, we're releasing an average of 275 cfs, on the Payette, 800 cfs

Flows at Lower Granite averaged 38 Kcfs last week, said Henriksen; the target at McNary was 175 Kcfs; observed flow was 172.5 Kcfs. The target for this week is 165 Kcfs? Nielsen asked. Correct, Henriksen replied.

On the TDG front, Dick Cassidy reported that Bonneville was spilling 24 hours a day until July 16. On July 15, we drifted a bit above the target of 120% TDG at Warrendale, he said; on the 16th, we reduced spill somewhat, and the tailwater came back into compliance. We've been adjusting over the past couple of days to get all of the stations back into compliance; we'll be adjusting spill upward later today, he said. We have been able to maintain 110% TDG at Dworshak except for a couple of brief periods,

Cassidy added. With respect to water temperatures, at Lower Granite, the Lewiston gauge shows a daily fluctuation between 56 and 58 degrees as it enters the Lower Granite forebay; at the Lower Granite forebay gauge, we're seeing temperatures in the 66-70 degree range.

With respect to fish migration, Wagner said the area of interest is still the subyearling migration. Numbers at Lower Granite are still good, but not as good as they've been – the index was 3,960 yesterday. That's still very high, compared to the historic index, said Wagner, but down from an index of 5,000 on the previous day; it appears that we've now passed the peak of the subyearling migration.

At McNary, daily subyearling chinook indices are varying between 20,000 and 59,000, Wagner continued. Wild fish numbers have been on the trailing side of things, he said; the biggest number we've seen in the past week is nine tagged fish, with the average in the low single digits. The forecast indicates that we're about two-thirds of the way through the wild run, he added. On the adult sockeye front, my understanding is that over 200 have passed Lower Granite, he added. The most recent number I've seen was from July 13, said Dusica Jevremovich – over 200 at Lower Granite.

VII. New System Operational Requests.

Henriksen noted that the new SORs were discussed during the previous agenda items.

VIII. Recommended Operations .

How should we handle next week's flow at McNary, said Henriksen; for modeling purposes, it looks as though the flow is likely to be close to 155 Kcfs. We would prefer to see flows closer to 160 Kcfs-165 Kcfs, based on our discussion at Tuesday's FPAC call, said Nielsen. I think that was contingent on the effects on Grand Coulee elevation, said Wagner – according to the Corps' spreadsheet, 155 Kcfs at McNary would only leave about two feet in Grand Coulee. If we meet 165 Kcfs, that would leave us closer to 1282 feet, he said. I think that's based on a flow of 175 Kcfs, said Fodrea, However, expectations are not matching up to reality, in terms of inflow to Grand Coulee, said Bettin.

After a brief caucus among the salmon managers, Nielsen said it was agreed to target 155 Kcfs at McNary for the week ending July 30.

IX. Next TMT Meeting Date.

The next meeting of the Technical Management Team was set for Thursday, July 20, at the Corps' Northwestern Division headquarters. It was agreed that this meeting will be a conference call. Meeting note prepared by Jeff Kuechle, BPA contractor.

TMT ATTENDANCE LIST

JULY 20, 2000

Ruth Abney	COE	
Scott Boyd	COE	503/808-3943
Dick Cassidy	COE	
Cindy Henriksen	COE	503/808-3945
Kyle Martin	CRITFC	
Patricia McCarty	Facilitator	
Kevin Nordt	PGE	
Rudd Turner	COE	503/808-3935

On Phone:

Name	Affiliation	Phone
Scott Bettin	BPA	
Ken Dragoon	PacifiCorp	
Margaret Filardo	FPC	
Kim Fodrea	Reclamation	
Richelle Harding	D. Rohr & Associates	
Russell Harding	Oregon DEQ	
Steve Hemstrom	Avista Utilities	
Dusica Jevremovich	FPC	
Jim Litchfield	Consultant (Montana)	
Nengjin Liu	Idaho Power	
Christine Mallette	ODFW	
Jim Nielsen	WDFW	
Mike O'Bryant	Columbia Basin Bulletin	

Glen Traeger	AVISTA Energy	
Maria Van Houten	ENRON	
Paul Wagner	NMFS	
Marv Yoshinaka	USFWS	