

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES
April 8, 2004
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM
HOUSE
PORTLAND, OREGON**

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 Update:

Chris Carlson, Grant County PUD, reported to TMT that fish began emerging on March 21st, so the emergence operation at Priest Rapids based on the 70 kcfs Vernita Bar agreement began. Flow data for 3/15-4/4 and the VB agreement are posted on the TMT web page. Chris reported that the project was operated within the flow band except for April 2nd. The PUD plans to maintain a minimum 70 kcfs flow until the end of emergence, and will continue to update TMT on Hanford Reach and Priest Rapids operations.

Lower Columbia Spill:

The planning date for start of spill in the Lower Columbia is April 10th. FPAC held discussions on Tuesday and looked at numbers of fish passing the projects. The salmon managers did not feel the numbers were high enough to start spill and would like to check the numbers on Monday (4/12). They will then advise the COE on a recommendation of whether to start spill the afternoon of 4/12. Likely they will recommend that spill begin Monday afternoon at all of the Lower Columbia projects.

ACTION: The salmon managers planned to coordinate with the action agencies during a subsequent meeting in the afternoon of 4/8.. If there is a change in recommended operations next week, Cindy will email notification to the rest of the group.

Mid-Columbia Flows:

The salmon managers reported that steelhead numbers are not high enough to recommend start of flow augmentation this week, so the recommendation is to revisit this issue at the TMT meeting on 4/14. The salmon managers will prepare an SOR before the next meeting. The COE will run two models in preparation for next week’s discussions: 135 kcfs 4/15 through the end of May; and last year’s ramp up operation.

McNary 1% Peak Efficiency:

Cindy Henriksen, COE, reported that notes from the 3/23 FFDRWG meeting (which include discussions on operating outside 1% efficiency at McNary) are available on the TMT web page. A Monitoring Plan is being developed and hoped to be completed by next Monday 4/12 for FPAC to review and discuss on Tuesday 4/13. The issue will then

come to TMT on Wednesday 4/14. The COE hopes to post the monitoring plan on the TMT web page on Monday.

Early Bird Forecast and Seasonal Flow at Lower Granite:

Cindy Henriksen presented the April final water supply forecast, which shows a decline from the early bird. The Jan-July forecast at Grand Coulee is 53.6 MAF (85% of normal). Lower Granite April-July is 15.6 MAF (72% of normal). The Dalles Jan-July is 84.2 MAF (78%) and April-August is 73.4 MAF (79%).

The 30- and 90- day forecasts show above average temperatures and below average precipitation. The Northwest River Forecast Center ran contingency forecasts that show 50%, 75%, and 125% of normal scenario. The 125% forecast, which would mean a very wet spring from here on out, showed Lower Granite reaching just 82% of average conditions. The QAdjust model, using the April early bird forecast, showed flows well below the 85 kcfs transport/spill threshold.

Paul Wagner, NOAA, offered that new information on transport is available which shows that there are no benefits of transport on the fish, particularly early in the season, during average flow years, and that transport may even be detrimental to the fish. The decision on whether to transport or spill should be based on all current available data. Also, there are ongoing spill studies that would not be completed if spill were curtailed. Concern was raised that the annual planning process was never resolved due to the BiOp remand– this to some means that the current BiOp recommendation should remain the default this year until the issue is further resolved in the BiOp remand process.

After further discussions, BPA recommended that spill continue at Lower Granite and Little Goose (where it has already started), but not begin spill at the other projects.

ACTION: NOAA will develop and put in writing alternative spill criteria/recommendation for review and discussion during a special TMT meeting next Monday, April 12 at 3:30 pm, along with data to support it. The criteria are: 1) when steelhead comprise a significant portion of the migration; 2) 9.5 centigrade or higher; or 3) no later than May 1. NOAA also supports the continuation of spill studies at Lower Granite and Lower Monumental. The salmon managers would like to see the costs of not doing research on spill this year. (The COE noted that they are not as concerned about not completing the studies). The spring spill issue and discussions will focus on Lower Monumental, Lower Granite and Little Goose. Until that time, spill will continue at Lower Granite and Little Goose, but will not begin at the other projects. BPA clarified that if there is no resolution on this issue on Monday, they plan to stop spill under guidance from the BiOp.

Current Operations:

TMT will receive updates on status of operations, fish, and power system at the April 12 meeting.

Next Meeting: There will be a special meeting to discuss spring spill on Monday, April 12 at 3:30. There will be another regular TMT meeting on Wednesday, April 14th to discuss the following agenda items:

- Current System Status
- McNary 1% Peak Efficiency
- Lower Snake Spill Update
- Lower Columbia Spill Update
- Mid-Columbia Flows

1. Greeting and Introductions

The April 8 Technical Management Team meeting was chaired by Cindy Henriksen 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 Henriksen at 503/808-3945.

2. Status of Hanford Reach Fall Chinook Protection Flows.

Chris Carlson reminded the group that, although the new Vernita Bar agreement has not yet been signed by all parties, as a good-faith gesture, when fish started to emerge on March 21, Grant County PUD decided to go ahead and implement the new agreement. As you will recall, he said, the critical elevation agreed to is 70 Kcfs Priest Rapids minimum outflow until the end of emergence. There were a lot of fish spawning in 2003, so there will be a lot of fish emerging, he said. As far as I know, no one is looking at the number of fish in the reach, so we're not reporting that, said Carlson. All we'll be reporting is flows this year – there will be no fish stranding information presented. Henriksen noted that the flow information is attached to the TMT agenda. Carlson briefly explained how the flow bands are calculated.

For the week of March 15-21, if you look at average discharge, it was right around the minimum, Carlson said. We had a flow band of 20 Kcfs for that week, he said. We will try to get a signed copy of the Vernita Bar/Hanford Reach agreement to the Corps for posting to the TMT website, he added.

For the week of March 22-28, said Carlson, we were within the flow band that entire week. For March 29-April 4, the flow bands ranged from 20 Kcfs to 30 Kcfs. On April 2, we were outside the flow band, 25.4 Kcfs rather than 20 Kcfs, because Grand Coulee was filling and Chief Joseph discharge was biased. As of April 4, the fish had seen 679 temperature units since the end of spawning in late November. We're currently at 98 temperature units since the beginning of emergence; once we reach 400 temperature units, the flow restrictions will end, Carlson added. In response to a question from Paul Wagner, Carlson said the fish are expected to reach 800 temperature units since the end of spawning within another one to two weeks.

3. Lower Columbia Spill.

Henriksen said that, according to the BiOp, the planning date to start Lower Columbia spring spill is April 10, this Saturday. This is on the agenda in case the salmon managers want that to happen on schedule, she said. We have been discussing that issue, said David Wills; our feeling is that the numbers are not yet right to begin spill at the Lower Columbia projects. We would like to recommend a planning date of the evening of April 12 – Monday – for the start of spill, he said. We will be watching the fish passage numbers and will check in with the Corps on Monday morning. And would that be spill at all four projects starting Monday night? Henriksen asked. That's what we've done in the past, Wills replied; again, though, we'll look at the numbers on Monday morning and let you know. At this point, though, I would say it is likely that spill would begin at all four projects on Monday evening, said Wills.

The group briefly discussed the biological rationale behind starting spill simultaneously at the four Lower Columbia projects; Wills noted that, in the Lower Columbia, smolts are emerging from multiple tributaries throughout the lower river at this time of year, in contrast to the Lower Snake system, where the tributaries contribute relatively few smolts. What do you recommend as far as Bonneville corner collector operation? Rock Peters asked. We'll get back to you on that this afternoon, Wills replied. So we'll set the evening of April 12 as the planning date to start spill at all four Lower Columbia projects, pending the outcome of the salmon managers' discussion on Monday morning, Silverberg said. If that changes, the Corps will send out an email.

4. Mid-Columbia Flows.

Wills said the salmon managers had also discussed this topic at their most recent meeting; he said steelhead numbers are not yet at a level to warrant the initiation of Mid-Columbia flow augmentation. We would like to revisit this issue at next Wednesday's TMT meeting, Wills said. It was so agreed.

5. McNary Operations.

At last week's TMT meeting, we heard that there was no regional consensus about operating the full McNary project outside 1 percent, said Silverberg. Has anything changed? Henriksen noted that the monitoring plan for McNary in 2004 is expected to be available by Monday, April 12, in advance of the April 13 FPAC meeting. The salmon managers can discuss it at their Tuesday meeting, and we will then discuss the plan in more detail at next Wednesday's TMT meeting, Henriksen said. In response to a question, Henriksen said the monitoring plan has been updated in response to comments received at the March 23 FFDRWG meeting. The group briefly discussed the type of information they would like the Corps to model in advance of that meeting.

6. Early-Bird Water Supply Forecast and Seasonal Average Flow at Lower Granite.

Henriksen said the April final water supply forecast is now available. In general, the forecast is down, she said, even lower than the April early-bird forecast. At Grand Coulee, the forecast has fallen to 53.6 MAF, down from 88% of average in the March final to 85% of average in the April final. At Lower Granite, April-July, it's now 15.6 MAF, 72% of average, down from 80% of average. The forecast at The Dalles,

January-July, is now 84.2 MAF, 78% of average. For the April-August period, The Dalles forecast is now 73.4 MAF, 79% of average. River Forecast Center representatives said the April final forecast assumes 74% of average precipitation through April 15, then average precipitation after mid-April; however, the 30- and 90-day forecasts show below-normal precipitation and above-normal temperatures.

Wellschlager said that, while the current Q-Adjust run is based on early-bird forecast numbers, in virtually all model years, average April-June flow at Lower Granite is below the 85 Kcfs threshold for spill at the Lower Snake projects. While we're willing to let the Corps re-model this based on the April final numbers, it appears extremely unlikely that flow in the Lower Snake is going to reach the 85 Kcfs voluntary spill threshold, and the BiOp is clear that if the 85 Kcfs threshold is not reached, we will go to transport, rather than spill, at the Lower Snake projects, Wellschlager said.

It is clear, and it isn't, Wagner replied – while the BiOp does say that, it also says we should use adaptive management to take into account new information. Wagner said that the 2003 information, another low-flow year, showed a survival benefit for in-river fish vs. transported fish. However, there is a big difference between 2004 and 2003, Wellschlager said – last year, we were very close to the 85 Kcfs threshold, and the forecast was rising. This year, we're looking nowhere near the threshold, and the forecast is falling like a rock.

The expectation was that the remand, which was supposed to be completed by April 1, would resolve this issue, said Wagner. As part of that process, NOAA Fisheries was to consider the scientific basis for the 85 Kcfs threshold. We have been re-examining the data on transported fish from recent years, Wagner said; clearly, during very low flow years, there is a biological benefit to transporting fish across the season. In near-average water years, however, there is a biological detriment to transporting chinook early in the season, before Lower Snake water temperatures reach 9.5 degrees C. There is new information out there, said Wagner, and we're looking at it.

From Bonneville's perspective, said Wellschlager, while we acknowledge that there may be new information, in terms of our operational parameters, the BiOp is clear. If you want to make a change to the BiOp, from a process standpoint, there is a process that needs to occur, and that hasn't occurred yet. Wagner replied that the remand process leaves the process for making changes to the BiOp operations somewhat in limbo. However, the judge's perspective is clear that we ought to consider new technical information, he said.

Ultimately, said Wellschlager, this is a policy issue – it isn't going to be decided at TMT. Chris Ross noted that there is new information, based on the 2000 outmigration and 2003 adult returns from that outmigration, which shows that it is beneficial to have spring chinook in the river in April. Ron Boyce suggested that it would make sense to bring all of this technical information to the table at next Wednesday's TMT meeting for an in-depth technical discussion. We need to know, for example, exactly how detrimental transport is in April, Jim Litchfield observed.

In general, said Wagner, it was clear to NOAA Fisheries that the 85 Kcfs threshold was a judgement call; we're bringing new information to the table, and we need to take it into account. Are you trying to leave fish in river, or are you trying to continue spill? Scott Bettin asked. Both, Wagner replied. For the next week, could we discontinue spill and bypass fish in-river? Bettin asked. That wouldn't be my preferred operation, Wagner replied. How detrimental would bypass be vs. spill? Bettin asked. I haven't seen that information, so I couldn't really tell you what the biological effects of bypass vs. spill would be, Wagner replied. Russ Kiefer said that, if there was no spill at the Lower Snake projects and the fish were bypassed instead, fewer adults will return. Whether it is better to spill or bypass early in the season, the data is unclear. However, in the draft white paper, bypassed fish did significantly worse than fish that passed through spill or the turbine, Kiefer said.

Bettin said Bonneville would prefer to stop spill at the Lower Snake projects until the next TMT meeting, and bypass the fish instead, to give the fish the benefit of the doubt in terms of in-river passage vs. transport. Spilling now, given the flow forecast in the Snake, represents a huge policy departure for Bonneville, with respect to the BiOp operations, one that would have to be agreed to unanimously at TMT, said Bettin. I think the salmon managers would argue that we should err on the side of the fish, Wagner said.

The question, then, is what we should do between now and next Wednesday's TMT meeting, said Wagner. In response to a question, it was observed that spill is now occurring at Lower Granite and Little Goose. The group discussed another potential compromise: continue to spill at Lower Granite and Little Goose between now and next Wednesday, but defer the start of spill at Lower Monumental and Ice Harbor until after the TMT meeting. The group also revisited potential criteria for the end of spill – for example, when steelhead passage reaches a specified level for three consecutive days, when Lower Snake water temperatures reach 9.5 degrees C, and when a specified date – for example, May 1 – is reached. Ross added that Lower Granite and Lower Monumental have scheduled RSW/transport research this year, and curtailing or not providing spill during the test periods would seriously compromise that research. Henriksen said that, in her view, the curtailment of that research would not necessarily be a show-stopper. If we decide not to spill there, she said, we can still move forward.

So the question on the table is whether or not to wait to begin spill at Lower Monumental until after next Wednesday's TMT meeting, Ross said. After a brief caucus break, Wills said the salmon managers have agreed to leave spill implementation at Ice Harbor off the table for now; continuing to spill at Lower Granite and Little Goose is acceptable, and the salmon managers will agree not to spill at Lower Monumental until after the TMT can meet on Monday. Henriksen noted that the BiOp's RPA 40 refers to Lower Granite, Little Goose and Lower Monumental, not Ice Harbor, which is not a collector project. It was agreed that the TMT will reconvene at 3:30 on Monday, April 12. And if we can't reach agreement at that meeting, will spill end at the Lower Snake projects Monday evening? Wills asked. My understanding is that if you want to do something different at the Lower Snake projects, you need to make a proposal and, if we're unable to reach agreement on that proposal at TMT, it would need to be elevated to IT, Wellschlager replied.

7. Current Operations.

This topic was not discussed at today's meeting.

8. Next TMT Meeting Date.

The next meeting of the Technical Management Team was set for Wednesday, April 14.

TMT Participant List

April 8, 2004

Name	Affiliation
Cindy Henriksen	COE
Donna Silverberg	Facilitation Team
Ron Boyce	ODFW
Jim Litchfield	Montana
Paul Wagner	NOAAF
David Wills	USFWS
John Wellschlager	BPA
Tony Norris	USBR
Tom Lorz	CRITFC
Chris Ross	NOAAF
David Benner	FPC
Robin Harkless	Facilitation Team
Scott Boyd	COE
Jim Adams	COE
Laura Hamilton	COE
Tim Heizenrater	PPM
Kevin Nordt	PGE
Ken Corum	PPC
Kevin Bannister	PNGC
Margaret Filardo	FPC
Kevin Bannister	

Denise Peterson	PPC
Ed Mount	PRM
Russ Kiefer	IDFG
Chris Carlson	Grant PUD
Nic Lane	BPA
Rock Peters	COE
Martin Hatscher	SCL
Ruth Burris	PGE
Cindy LeFleur	WDFW
Bill Rudolph	NWFL
Shauna McReynolds	PNGC
Joe McGrath	Snohomish PUD
Glenn Traeger	Avista
Tom Le	PSE
Scott Bettin	BPA