

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

March 8, 2006 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

Notes: Robin Harkless

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.

Comments on Notes

No comments on the February facilitator notes or official minutes were provided at this time.

Priest Rapids Operation

Russell Langshaw, Grant County PUD, provided an update on Priest Rapids protection flows over the past three weeks. Due to increases in flows, the band width constraints were not met on two days during week one, one on the weekend, and one weekend day during week two. With this observed weekend trend, Grant County is working to improve communication with upstream operators. A TMT salmon manager commented that the need for the band is to avoid fluctuations rather than meet a target flow.

ACTION: Russ will include timeframes for all deviations from band width constraints in his briefings to the TMT at future meetings.

Fish Spill Percentage at The Dalles

A handout was provided and can be found as an attachment to today's agenda. It describes the spill limitations that will exist at The Dalles during wire rope replacement work in from April 10-May 15. The COE suggested that it is unlikely that this work will result in any impact to meeting 40% at The Dalles, but if necessary, the COE asked for a recommendation from the salmon managers on alternative operations, if necessary : Spill to 40% through different bays, or spill less than 40% ?

The salmon managers were concerned with language in the document about 'power peaking', which BPA said would be more appropriately described as 'following load' and necessary to run the river.

All TMT members shared an objective of getting the fish safely through the system. The salmon managers recommended that if necessary, The Dalles spill at less than 40% rather than spill through alternative bays. They will develop a contingency plan (to discuss with the action agencies) for reviewing (and quantifying, if possible) impacts from an alternative operation, and discussing offsets if a negative impact is found.

Spring Creek Hatchery Release

Dave Wills, USFWS, reported that approximately 7.6 million fish were released from the Spring Creek hatchery on Thursday, March 2. The COE opened the B2 corner collector at 7:00 am on Friday, March 3 and the project was operated to 14.5' tailwater. After looking at tidal influences and TDG effects over the chum, a subgroup of the TMT agreed to lower the tailwater to 12.5' on Friday afternoon. Operation of the corner collector continued until Tuesday, March 7, when it was determined that 95% of the fish passed the dam. BPA expressed appreciation to NOAA and USFWS for its collaborative efforts on this.

March Final Water Supply Forecast

Cindy Henriksen, COE, shared the March final forecasts: The Dalles Jan-July forecast is 107 MAF (lower than previously); Libby is at 6.35 MAF (102% of normal); The Dworshak forecast is 99% of normal and Lower Granite is 82% of normal. Tony Norris shared the BOR's water supply forecasts: Grand Coulee is down by 8 MAF; Hungry Horse is down by 80 KAF, resulting in operations of 3.5 kcfs flows at Hungry Horse and 900 cfs at Columbia Falls.

Dworshak Shifted Flood Control

As follow-up from the last TMT meeting, the COE provided a summary of flood control elevations with a shift from Dworshak to Grand Coulee:

- March 31: Grand Coulee 1262.7'; Dworshak 1532.4'.
- April 15: Grand Coulee 1239.7', Dworshak 1541.3'.
- April 30: Grand Coulee 1232.7', Dworshak 1526.3'.

The BOR coordinated with upriver tribes in support of the shift. The salmon managers and other TMT members supported the shift as well. The COE is on track to meet the March 31 flood control elevation targets.

Water Management Plan Comments

The Fall/Winter update will be finalized with the latest water supply forecast information from the BOR. The emergency protocols will be updated to include the latest recommendations from the salmon managers, finalized and attached to the WMP.

Operations Review

Reservoirs – Grand Coulee was at elevation 1253.7'. Hungry Horse was at 3528.4', and reduced outflows to 2 kcfs. The Libby water supply forecast is 6.35 MAF, so operators will target a 2404' flood control elevation by the end of March. Outflows have been increased to 9 kcfs to meet this target. Dworshak is at 1527' with outflows at 4.7 kcfs and the end of March shifted elevation at 1532'. Lower Granite flows have been 45-50 kcfs. McNary flows have been 130-155 kcfs. The Bonneville tailwater is being operated to 11.5'.

Fish – 24,000 subyearling chinook smolts were counted on 3/8. On 3/2, Oregon and Washington PFM sampling found more yearling chinook than normal for this time. Many sea lions have been observed in the river below Bonneville.

Power system – Nothing to report at this time.

Water quality – TDG levels at Warrendale have reached up to 107%, and temperatures are at 39-41°.

TMT Meeting Schedule

TMT meetings are scheduled for March 22, and April 5 and 19. These dates are subject to change. Check the TMT web page for updates.

Wednesday, March 22 agenda items include:

- Update/Recommendation on The Dalles Spill
- Priest Rapids update
- HYSSR/ESP Runs

1. Greetings and Introductions.

Today's meeting of the Technical Management Team was chaired by Cindy Henriksen and facilitated by Donna Silverberg. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Henriksen at 503-808-3945.

2. Priest Rapids Operation.

Russell Langshaw said an update on Priest Rapids operations, containing the detailed numbers outlined in his presentation, is available via hot-link from today's agenda on the TMT homepage. We've been in protection flows for about three weeks, he said; emergence was somewhat early this year. Langshaw went briefly through the daily delta and band constraint information for the past three weeks at Priest Rapids.

Are things being worked out, in terms of the weekend estimates and exceedences? Paul Wagner asked. All we can do is set up according to the flow estimates we receive, Langshaw replied; if actual flows exceed the estimates, there isn't much we can do about that. I can appreciate that, especially early in the season, it may be difficult to get accurate estimates, but is there communication on the need for better estimates? Wagner asked. Our operators have communicated the need for more accurate estimates, Langshaw replied; we're working on that.

The group devoted a few minutes to the reason for the exceedences seen so far this season, as well as potential changes in operations to help the operators avoid future exceedences and the time-frames and durations in which the exceedences have occurred. Langshaw said he will provide information on

the time of day/duration issue at the next TMT meeting. We're currently at 661 temperature units from the end of spawning at Vernita Bar, Langshaw added; weekend operations will begin once we reach 800 TUs. We're accumulating about 5 TUs per day, currently, he said.

3. Fish Spill at The Dalles When Flows Are High.

Henriksen said this is a follow-on discussion from last meeting; a handout describing the spill limitations at The Dalles during wire rope replacement is available via hot-link from today's agenda on the TMT homepage. With respect to the total river flow from April 10-May 15, the availability of bays 7-9 will be limited, she said. If total river flow exceeds 450 Kcfs before May 15, the question to the salmon managers is, do you want to spill less than 40% of total river flow, or add other spillways, such as 14-22, in addition to bays 1-6, despite the fact that those additional bays may not provide the best egress conditions, in order to maintain 40% spill?

Russ Kiefer said the salmon managers have discussed this issue; we did notice, in the information provided by the Corps, that power peaking increases the likelihood that this situation could occur, he said. One thought we had is that we should not be power peaking if we're going to be creating a fish survival problem greater than that identified in the plans this year. In our view, good spillway passage and survival is more important than the percentage or volume of spill provided. Good passage and survival through 40% spill via the optimal spill bays is our preference, he said; we would like to identify some offsets if spill occurs outside those parameters.

I believe the question is, if unusually high flows occur between now and May 15, what should the Corps do – spill less than 40% of total river flow, or go to other spill bays? Silverberg said. First off, do the action agencies plan to do power peaking at The Dalles and put us into that tough choice? Kiefer asked. I believe you're thinking of power peaking as an arbitrary choice, said John Wellschlager – a more accurate term is "following load." It is impossible to flatten out flows for a variety of reasons – shaping at upstream projects, for one. What I think I'm hearing from you is that power peaking is an arbitrary thing we can just turn off, he said. That's not what I'm saying, Kiefer replied – I'm asking the action agencies to minimize power peaking as much as reasonably possible within the constraints you face.

Flows of 315 Kcfs are pretty substantial, said Wagner – is it more or less likely that load following would occur when flows are that high? Less likely, Wellschlager replied – there is a low likelihood that load following would need to occur if flows are that high. I would add that, if you reduce or eliminate load following at one project, we will need to increase it at another, he said.

If we do find ourselves in this situation, the salmon managers would recommend dropping spill at The Dalles below 40% while continuing to spill through bays 1-6, but explore offsets to make up for that deficit, Kiefer said. I think offsets are reasonable when you can quantify the impacts, Wellschlager replied, but I don't think you can quantify those impacts in this case. The plan says to provide 40% spill, Kiefer replied; if we can't do that safely, then we're detrimentally impacting smolts. Spilling 40% of total river flow through the identified spill bays is the objective for safe smolt passage, Kiefer said – if we don't meet that objective, we will be putting more fish through the powerhouse. I would think we would want to provide more spill elsewhere in order to offset that impact, he said.

Henriksen reiterated that this situation is unlikely to occur; if it does occur, it would likely last for only a few hours of a day. How can you quantify that type of impact, she said, so that an appropriate offset can be calculated? The objective is to get the fish downstream as safely as possible, David Wills replied – during the six weeks when the gates are being re-hung, our ability to provide optimal passage conditions may be compromised. If that does occur, we would like the opportunity to review the operation, come to an understanding about the impacts, and address any potential offsets in the future, he said. It may not be possible to do that, if the river is really churning, Wellschlager said – it may not be possible to provide additional spill, in real time, at another project, if TDG levels are already being exceeded.

Wagner suggested that the group revisit this topic in the unlikely event that these extremely high flows occur prior to May 15, rather than attempting to stake out detailed positions at today's meeting. I think the salmon managers can identify, over the next month, some recommended offsets in the unlikely event that this occurs, Kiefer added. We would then request that, if it does occur, these offsets be implemented in real-time. We will have more discussion on this topic as the season unfolds, Silverberg said.

4. Spring Creek Hatchery Update.

We released 7.6 million smolts from Spring Creek Hatchery last Thursday morning, said Wills; corner collector operation began Friday morning. We agreed on a Bonneville tailwater elevation of 14.5 feet over the weekend while we took TDG and depth measurements at the Multnomah Creek and Ives Island spawning sites, Wills said; what we found was that there was minimal tidal effect at those sites. We then had a conference call, on Friday, and agreed that we could reduce the tailwater elevation to 12.5 feet, he said. TDG levels were in the 104-106% range. TDG levels subsequently crept upward, to about 107.5%; because of the lower flows, I wanted to make sure we still had adequate coverage over the redds, Wills said. On Sunday, we saw a fluctuation of about two feet due to tidal influence.

The bottom line is that the Sunday survey found that depth compensation over the redds was adequate, said Wills; we then had a conference call on Tuesday morning, at which it was determined that the 95% point of passage had been reached. The counts Tuesday morning showed more than 96% passage had occurred. We then agreed to close down the corner collector operation on Tuesday morning as a result of the count information, Wills said. Wellschlager said the action agencies appreciated the hard work on the part of the states and the Fish and Wildlife Service in monitoring and coordinating the corner collector operation.

5. Chum.

Conversation on this topic was deferred to the next TMT meeting.

6. March Final Water Supply Forecast.

Henriksen said the March final water supply forecast was posted to the TMT website yesterday. At The Dalles, the March final January-July forecast is 107 MAF, about average, down 4 MAF from the February final forecast. For Grand Coulee, said Norris, for the April-September period, the forecast fell 8 MAF from February to March, but the January-July forecast dropped less than 1 MAF. The March final forecast at Libby is 6.35 MAF, 102% of average, said Henriksen; the March final at Dworshak is 2.62 MAF, 99% of average, down slightly from the February final. Lower Granite's April-July forecast is now 109% of average, which puts the spring seasonal objective at 100 Kcfs. Hungry Horse's March final forecast dropped slightly, by 80 kaf, from the February final, said Norris.

7. Dworshak Shifted Flood Control Operations.

Henriksen said this agenda item is informational in nature, to update the numbers based on the March final forecast. She noted that a handout on this topic is available via hot-link from today's agenda on the TMT homepage. She noted that this is not final information, as the Grand Coulee water supply forecast being used for this calculation was the mid-month forecast, not the final water supply forecast. Under a shift operation, Dworshak's end-of-March and April 15 flood control elevations would be somewhat higher than they would have been, while Grand Coulee's flood control elevations would be lower by an equivalent volume to maintain system flood control space.

Wills said the salmon managers are still in favor of doing a Dworshak-Grand Coulee flood control shift in 2006; however, some additional coordination is needed with the upriver tribes. We wanted to see this information before making a concrete recommendation, said Kiefer; now that we have the March final water supply forecast, the salmon managers can have a more substantive discussion, and develop a recommendation. Norris said Reclamation is generally

in favor of the Dworshak-Grand Coulee flood control shift; it's a good operation, he said, and makes sense all around. From the Corps' perspective, we did plan to operate to the shifted flood control elevations; given the fact that it's already March 8, we're on track to continue to fill toward elevation 1532, the higher, shifted March 31 flood control elevation at Dworshak, she said.

8. Status of Litigation.

Norris said there is really nothing to report on this topic at today's meeting; negotiations and work on the remand are ongoing. It was agreed to change the title of this agenda item to "Status of Remand" in the future. The next quarterly report is due to the court on April 3.

9. Water Management Plan Comments.

The only remaining item to be added to the fall/winter update is Reclamation's final forecast, said Norris; that has now been sent to the Corps. We'll get that incorporated, Henriksen said. Henriksen also distributed the most recent version of the emergency protocols from Appendix 1 of the Water Management Plan; the group briefly discussed them.

10. Operations Review.

Norris said Grand Coulee is at elevation 1253.7, currently; Hungry Horse is at 3528.4 feet and releasing 2 Kcfs. Libby's March final forecast is 6.35 MAF, which puts its March 31 flood control elevation at 2404 feet. The current project elevation is 2411, so outflow has been increased to 9 Kcfs, to get down to that flood control elevation. Dworshak is at elevation 1527, currently with 4.7 Kcfs outflow; its March 31 shifted flood control target elevation is 1532 feet, so the Corps will be re-examining outflow from that project to achieve that elevation. The flow at Lower Granite is in the 45-50 Kcfs range, currently; at McNary, about 130-155 Kcfs; at Bonneville, project operators are now maintaining the normal 11.5 foot tailwater elevation.

Wills said the current STP run shows Grand Coulee at 1255 feet at the end of March, its shifted elevation. That is based on the early-bird forecast, Henriksen replied; the goal will be to shoot for the April 10 elevation.

From the fish perspective, Wagner said the Spring Creek fish have now passed Bonneville. There are other fish out there, Wills said; field crews have found quite a few – dozens of -- unclipped yearling chinook in recent days. That is a surprisingly high number for this early in the season, Wills said. Sea lions are already plentiful at Bonneville, and they're already eating well – mostly sturgeon, he added. It was noted that a news report showed that sea lion C404 entering one of the Bonneville fish ladders through the bars of the sea lion exclusion device. The group briefly discussed the 2006 sea lion harassment program; in

response to a question, Wagner said lethal take of marine mammals can only be done by the states, not the federal agencies.

Wellschlager said there are currently no power system issues to report. Jim Adams reported that TDG levels at Warrendale averaged about 105% during the corner collector operation, other than one brief period when they reached 107%.

11. Next TMT Meeting Date.

The next meeting of the Technical Management Team was set for Wednesday, March 22. Meeting summary prepared by Jeff Kuechle, BPA contractor. [1.5 hours]

**Technical Management Team Participant List
March 8, 2006**

Name	Affiliation
Donna Silverberg	Facilitation Team
Cindy Henriksen	COE
Tony Norris	USBR
Paul Wagner	NOAAF
Russ Kiefer	IDFG
David Wills	USFWS
Paul Koskie	COE
John Wellschlager	BPA
Robin Harkless	Facilitation Team
Don Faulkner	COE
Tim Heizenrater	PPM
Kevin Nordt	Mid-Cs
Dan Spear	BPA
Scott Boyd	COE
Ruth Burris	PPL
Kyle Dittmer	CRITFC
Russ Langshaw	GCPUD

Russ George	WMCI
Shane Scott	Consultant
Bill Crampton	CBB
Brenda henderson	BPA
Bruce MacKay	Consultant
Richelle Beck	D. Rohr & Associates
Mike Buchko	Powerex
Tom Lorz	CRITFC