TECHNICAL MANAGEMENT TEAM
CONFERENCE CALL
July 5, 2006 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS
Facilitator: 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.

Dworshak Operations
TMT held conference calls on Wednesday, July 5, to look at current conditions and forecasts, and continue discussions on Dworshak operations.

Dworshak operations had been at 4.2 kcfs outflows at 43º F over the previous weekend. Around 10:00 am on Tuesday, July 4, the Anatone gauge reached 70º, triggering an increase of outflows from Dworshak to 7.2 kcfs. The current 24-hour rolling average at Anatone, per the July 5 call, was 70.3º, and the Lower Granite tailwater gauge was 69º. The forecasted temperatures at Lewiston for the week were in the 90's with isolated thunderstorms. After some discussion, TMT agreed to the following: Operate Dworshak at full powerhouse and slightly lower temperatures. The caveat put forth was the hatchery's preference to not drop below 43º for longer than a few days. TMT agreed to check in again on Friday to assess current conditions and set up the weekend operation.

Technical Management Team Conference Call

July 5, 2006

1. Greetings and Introductions.

Today's Technical Management Team conference call was facilitated by Robin Harkless. 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 Cathy Hlebechuk at 503-808-3942.

2. Dworshak Operational Update.

Jim Adams said he was unable to update the graphs prior to today's meeting – what we have to look at today are the same graphs we had last time. You will recall that, following last Friday's conference call, we agreed to reduce Dworshak outflow from 7.2 Kcfs to 4.2 Kcfs, based on Mike Schneider's model results, and the prediction of more moderate weather, and hold that outflow volume until we saw temperatures of 21 degrees C – about 70 degrees F – on a 24-hour rolling average at the Anatone gauge. Once that criteria is met, we agreed to increase Dworshak outflow to 7.2 Kcfs at 43

degrees C. If we saw 22 degrees C at Anatone, we agreed to increase Dworshak outflow to full powerhouse capacity, Adams said.

With respect to current conditions, we hit 21 degrees C at Anatone at 10 am yesterday, and increased Dworshak outflow to 7.2 Kcfs prior to noon, Adams said. That's how we're operating now. The current 24-hour rolling average at Anatone is 70.3 degrees F. The tailwater at Lower Granite hit 68 degrees about 10 am on July 4. The last reading we have, at 5 am this morning, is 69.0 degrees F, Adams said. What's the weather forecast like? Paul Wagner asked. The low 90s today, Greg Haller replied. Adams added that the weather is expected to cool somewhat in the short run at Lewiston, then get hotter through the weekend – up to 97 degrees F on Sunday. Some thunderstorms are forecast over the next few days, which will create some cloud cover.

David Wills said that, based on the current water temperature situation and the weather forecast, he would recommend increasing Dworshak discharge to full powerhouse capacity, beginning today. Kruger said he was looking at the National Weather Service forecast for Lewiston, which shows temperatures of up to 99 degrees on Sunday. The group briefly discussed what circumstances would cause the TMT to recommend increasing Dworshak discharge above full powerhouse capacity; Wagner replied that, if temperatures in the high 90s were forecast for several consecutive days, NMFS would recommend exceeding full powerhouse capacity from Dworshak.

In response to a question, a Corps participant said Hells Canyon discharge is expected to hold steady at 14-15 Kcfs for the foreseeable future. In response to another question, Adams said operation in the "undershot" mode at Dworshak would reduce the release temperature to 39-40 degrees F. That is an option for the short term if we're behind the temperature curve at the Lower Granite tailwater, said Adams, but in terms of a longer-term operation – say, anything over three days – we would need to do a mixed operation, overshot-undershot – to avoid significantly impacting the growth of the fish at Dworshak National Fish Hatchery. In response to a question, Haller said there are a lot of fish rearing in the Clearwater, currently; according to field surveys, the fish are currently in the 60-90mm size range.

Looking at the temperatures in the mainstem Clearwater, upstream from the confluence with the North Fork, said Dave Statler, they're in the 70-degree range, so it would probably be OK to go to a full powerhouse capacity release at 41 or 42 degrees from Dworshak. Again, if we go to undershot mode, we will see a release temperature of 39-40 degrees F, said Adams. I spoke to personnel at Dworshak National Fish Hatchery this morning, said Wills; they have a hatchery BiOp, and would prefer that the Dworshak release temperature not fall below 43 degrees F. We could consider a short-term operation at a lower release temperature, but anything longer than about three days would be a problem, Wills said. In response to a question, Adams said it might be some time this weekend, and possibly as late as Monday, before the effects of any operational changes at Dworshak made today would be fully seen at the Lower Granite tailrace.

Rich Domingue said that, to him, it makes more sense to talk about increasing Dworshak discharge, rather than lowering the release temperature. We also have a flow issue in the Lower Snake, so Oregon would support that concept as well, said Rick Kruger. That would be more beneficial to the fish in the Clearwater as well, Wills said. I haven't heard any objections to going to full powerhouse capacity today, Litchfield said.

After a few minutes of further discussion, it was agreed to increase Dworshak outflow to full powerhouse capacity, beginning today, with two units in undershot mode and one unit in overshot mode. It was further agreed that the TMT will check in again via conference call this Friday, July 7 at 1 pm, and that the Corps will re-calculate the volume of water available at various temperatures and strata in Dworshak reservoir. Adams noted that, based on the Corps' previous estimates, there is less cold water available in Dworshak Reservoir this summer than there has been in recent years. Wills said he will re-confer with personnel at the hatchery to determine the maximum acceptable duration of operating Dworshak at a release temperature below 43 degrees. It was agreed to make the change in Dworshak outflow temperature as gradual as possible.

3. Start of McNary Transportation.

Bern Klatte said the system is no longer in springlike conditions, in terms of flow and water temperature. The Corps would like to begin transportation at McNary as soon as possible. The current temperature at the project is 65.5 degrees F, well above the 62-degree "springlike" threshold, and flows have been below 220 Kcfs since the first of July. Project personnel can begin collecting fish as early as 7 am tomorrow, Rudd Turner said, adding that spill will continue at McNary at 40 percent of total river flow.

After a brief discussion, no objections were raised to this operation; collection and transport will begin tomorrow morning, July 6.

With that, today's conference call was adjoured.

Technical Management Team Meeting Participants
July 5, 2006

Name	**Affiliation**
Robin Harkless	Facilitation Team
Jim Adams	COE
Rich Domingue	NOAAF
Steve Jewell	COE
Dave Benner	FPC

David Wills	USFWS
Tom Lorz	CRITFC
Russ George	WMCI
Jim Litchfield	Montana
Cindy LeFleur	WDFW
Bern Klatte	COE
Paul Wagner	NOAAF
Rick Kruger	ODFW
Dave Statler	NPT
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