

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

August 1, 2008 Conference Call

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator/Notes: Robin Gumpert

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.

Libby/Arrow Swap

Robyn Mackay, BPA, referred TMT to a Draft Principles document that had been circulated to TMT prior to this morning's conference call, describing provisions for a potential swap of Canadian storage into Libby reservoir during the month of August. She said the swap request was initiated by Canada and the potential benefits would include keeping Libby fully loaded for a while longer and adding some volume to the reservoir for recreational purposes. The operation could begin as soon as August 2 and she requested guidance from TMT on whether to pursue the swap.

Several questions were asked about the 'flow neutral' quality of the operation and around how this would be accounted for. The COE models a TSR (Treaty Storage Regulation) every week to be able to account for inflows and water volumes so that the swap can be returned at a later date. (It was uncertain when the water would be returned back to Arrow but it was suggested today that that might happen in September). While there are uncertainties around actual volumes (due to uncertainties in inflows), the operation would be flow neutral in that the same amount of water would be sent down the system with or without the swap. The COE would continue to meet its bull trout minimum flow objectives (8 kcfs) in August and September, and did not foresee any conflicts with this agreement to meet that objective or any subsequent BiOp required operations. BPA also reported that they had pursued opportunities for additional water use (beyond the 'flow neutral' opportunity being presented today), and said nothing was available this year.

Montana: Expressed appreciation for the opportunity, noting that the region is in a good position to implement the swap this year, and that Montana is very supportive of it.

Oregon: Interest is in a flow neutral operation and would like to see clear documentation of the operating plan and a detailed accounting of the operation after it is complete. Do not object to moving forward with the swap given that this will be a flow-neutral operation.

Idaho: If there is no decrease in flow in the Columbia system and it provides additional benefits to the Libby reservoir and Kootenai River, Idaho supports the swap.

Washington: Was not on the call today -- the COE reported on a discussion had with IT representative Bill Tweit, that Washington supported the swap so long as it remained flow neutral to the lower river, and added that given this year's favorable conditions, the opportunity to benefit Montana and the up river use should be pursued.

USFWS: As long as the plan holds to the 8 kcfs minimum flows for bull trout, support moving forward with the swap.

NOAA: As a flow neutral operation, supports the swap.

BOR: As a flow neutral operation, supports the swap.

COE: Supports the operation.

CRITFC: Speaking on behalf of CRITFC, agrees with Oregon's interest that the operation needs to be flow-neutral and that documentation of the operation should be provided. If both interests can be met, supports the swap.

Action: Kyle Dittmer and Jim Adams agreed to work together to coordinate any follow up with the tribes on this issue.

Action/Next Steps: BPA planned to pursue the swap with BC Hydro, and planned to confirm with TMT final approval and implementation of the operation. Per TMT request, BPA will share the final signed agreement (if/when made public) and the early August TSR. Robyn will provide updates to TMT through the month and will report at a September meeting the full accounting of the operation. The COE will include this operation in its monthly reporting to the court.

Lower Granite: The COE reported that fire protection work will be done at Lower Granite requiring outages at units 5 and 6. Previously the plan was to start with unit 5 (August 4-29) and then move to unit 6 (September 2-26). To support a safer operation, the work will be reversed so will begin on unit 6. This was vetted through FPOM and was being shared with TMT because it was a deviation from the FOP. The operation would have no impact on fish operations. TMT also approved changing the unit priority to 1-6 from units 4-6, 1-3 as was done last year. This will allow the smaller units to run first allowing more water to be spilled during low flow periods.

Dworshak RO's: Jim Adams, COE, provided an update as follow up from the July 30 TMT meeting regarding RO issues at Dworshak. A preliminary investigation found that RO's 1 and 3 might be available for use as early as next week. More information will be provided at the August 6 TMT conference call.

**Columbia River Regional Forum
Technical Management Team Conference Call
Aug. 1, 2008**

1. Introduction

Today's TMT call was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (DS Consulting) with representatives of BPA, USFWS, COE, BOR, NOAA, CRITFC, Oregon, Montana, Idaho, and others participating. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

2. Libby-Arrow Swap

Canada has approached BPA about doing a swap, which Robyn MacKay (BPA) described in today's call and in a one-page narrative she sent TMT as background. In a swap, BPA stores water in Libby reservoir while Canada releases the same volume of water from Arrow. The water is returned to Canada sometime between September and December. This year, it would be equivalent to approximately 3 feet of elevation above the 2,439 end of August target at Libby. The exchange is calculated using a TSR (treaty storage regulation) elevation for Arrow. Canada is interested in a swap this year because it would keep Libby reservoir fuller for a while longer and provide extra volume for recreation. The volume left after meeting the 8 kcfs bull trout minimum would become available for the swap. That amount would be stored in Libby beginning as early as tomorrow, if TMT did not object to the operation today.

Oregon requested detailed documentation and comparative accounting of the effects the swap would have on flows and reservoir elevations to demonstrate that the swap would be a flow-neutral operation. BPA explained that such detail is not available now, but would be after the fact. The swap is fairly straightforward – with a shift of approximately 60 ksf, the ending elevation at Libby would be approximately 3 feet higher than the 2,439 target, and the ending elevation at Arrow reservoir would be lower by approximately 60 ksf at the end of August. A detailed accounting will be required because the returns have to be arranged so they're economically advantageous to both Canada and the U.S., Montana noted.

Oregon asked whether the ability to meet flow targets would be enhanced under this agreement. It doesn't allow for additional water out of Arrow, BPA replied. Oregon asked whether BPA or the Action Agencies have looked at opportunities to enhance flows, given that flow objectives are not being met. Yes, 1 maf was stored this spring, BPA said. Other options have been explored and nothing is currently available.

BPA – Proposed to move forward with the swap as early as tomorrow, if there were no objections today. BPA still hasn't heard from the Canadians, who requested the extra volume mainly for recreational and power purposes in Canada. Either way (with or without the swap) the volume of water coming down the Columbia River will be the same, a volume of Libby water that will be exchanged for Arrow water. The agreement is patterned after one signed in 2002, the most recent swap. This year's swap is pretty straightforward – the Arrow reservoir elevation will be lowered by an amount equivalent to the amount by which Libby reservoir is above elevation 2,439 feet at the end of August. In response to a request from Oregon for documentation of what elevations and flows would be with and without the swap, BPA stated that there was no modeling available today to show the swap, but the method and accounting will be as explained above. BPA will provide after-the-fact accounting of the swap and explained how the Canadian system is operated: Twice monthly, the TSR (treaty storage regulation) elevation at Arrow Dam is computed. The TSR elevation computed on Aug. 21 will be the one closest in time to the end of August (and what Arrow would otherwise be targeting without a swap). With the swap, Arrow will target to be below the TSR by the same volume that Libby will be above 2439 feet. BPA reiterated that the Aug. 21 TSR elevation for Arrow would be used to account for the volumes of water being exchanged.

Oregon – Given that flow objectives are not being met, Oregon wanted to be sure this operation won't degrade flows. It's important that the operation be flow neutral, and Oregon expressed a strong desire to see accounting after the fact, if not today, that demonstrates the operation was indeed flow-neutral. Stated that the situation is "not as simple as it seems on this call." Expressed willingness to accept the TSR elevation on Aug. 21 as a viable method of computing an appropriate end of August elevation for Arrow reservoir. See discussion below of Oregon's request for documentation.

Montana – Didn't share Oregon's concern with flow neutrality. Believes this is a good time for a swap, and if Canada wants one, the U.S. should accept. Montana believes the 2-3 kcfs of extra volume provided by the swap will benefit Libby reservoir by keeping the reservoir approximately 3 feet above elevation 2,439 at the end of August. Reminded everyone that this flow option wasn't available last year, so the flows it produces will be layered on top of the rollover of 2007 spill operations. The offer is advantageous, and Montana didn't see any reason not to accept it. Asked when the September operation would be better understood. BC Hydro is expected to return some of their portion of water in September.

USFWS – Supports the swap as long as bull trout minimum flows of 8 kcfs are maintained on the Kootenai River. It appears that water volumes would be the same under the swap as they would without it, and whatever the swap provides is what we would have had anyway; BPA confirmed this is correct.

Recalled possible wording in the FOP regarding swaps if they're available; Montana stated that language is in the WMP.

NOAA – Supports the swap and sees it as a flow-neutral operation.

Idaho – Supports the swap under current river conditions.

BOR – Stated that the operation is flow neutral, is neutral to anadromous fisheries of the U.S., and is of benefit to Montana. Therefore supports the swap.

COE – Supports this operation. Will report it to the court in some manner, at the very least in the monthly reports submitted to the Court. Noted that September is outside the flow objective period, when the only ESA-related constraint would be bull trout minimum flows (8 kcfs in July and August and 6 kcfs in September), which would be maintained under the swap. In past years, September was excluded from the swap; this year it was not.

CRITFC – Does not object to this operation, but shares Oregon's concerns about the lack of documentation and calculations presented today. Agreed to contact each of the four member tribes after this call. Recalled earlier Libby swaps and stated that this one sounds like "nothing out of the ordinary."

Washington – The only Regional Forum sovereign not represented on the call today. The COE reported a recent conversation between Rudd Turner of the Corps and Bill Tweit of Washington Department of Fish and Wildlife in which Washington expressed support for the swap, although the COE was not speaking on behalf of Washington today. Believes the swap should be flow-neutral. This is a good year for a swap, with plentiful flows and cooler temperatures than usual.

Today TMT reached consensus to move forward with the swap, with no objections expressed. BPA will bring after-the-fact accounting of the Libby-Arrow swap to a September TMT meeting.

There was an extended conversation, mostly between BPA and Oregon, regarding accounting for the swap in terms of flow neutrality. Montana seconded BPA's assertion that the TSR method described above provides the best estimate of what elevation Arrow reservoir would reach by end August without the swap. Oregon expressed discomfort with looking three weeks into the future for documentation. BPA explained this is how the Canadian side is operated every year: Once every two weeks, an end point is established based on stream flows and the system is operated to that point. Every week, BPA will calculate what flows were needed for bull trout minimums and how much is left to swap. The operation will be flexible throughout the month, with a true-up in the last week so that whatever amount Libby is above its target elevation, Arrow is below its target elevation by the same amount. Oregon requested that BPA provide a

copy of the signed agreement to TMT if it is not confidential; BPA said that would probably be acceptable. BPA will give an update on the Libby-Arrow swap at the next TMT meeting.

3. Lower Granite Operations Update

The FOP specifies a maintenance operations schedule for units 5 and 6 at Lower Granite, which are fire protection units and power system stabilizers, Adams said. The FOP says work on Unit 5 will occur from Aug. 4-29, and work on Unit 6 will occur from Sept. 2-26. The COE is proposing that the two schedules be switched to accommodate other work. Last year, a change in unit priorities means that units 5 and 6 probably won't come back on line until September, Scott Bettin (BPA) said. In practice it's moot, but the COE wanted to notify TMT because this operation is spelled out in the FOP. TMT members then stated their views for the record.

Oregon – This has no effect on operations; doesn't have a problem with it.

COE – Believes this has no effects, and the units aren't usually reported because they come on line so late in the season.

USFWS – Their FPOM representative thinks it's okay.

NOAA, BOR, BPA, CRITFC, Idaho and Montana voiced no objections to this operation. TMT will revisit this issue in its next conference call Aug. 6.

4. Dworshak Operations Update

Recent information on the condition of the RO gates indicates that the problem might be solved, using on-site fabrication, by the end of next week, Adams said. The report is tentative but sounds promising. Inspectors were able to photograph the gates and develop a plan to get them running without putting anyone at significant risk. TMT will revisit this issue on its conference call next Wednesday, Aug. 6.

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Robyn MacKay`	BPA
Tom Le	Puget Sound Energy
Kyle Dittmer	CRITFC
Dave Wills	USFWS
Jim Adams	COE
Amy Reese	COE
John Roache	BOR
Jim Litchfield	Montana

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