

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

February 11, 2009 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Robin Gumpert

Notes: Erin Halton

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.

Review of Minutes/Agenda

The 1/29 facilitator notes and official meeting minutes were posted to the TMT webpage. An edit to the 1/29 sets of notes was submitted by Kyle Dittmer, CRITFC:

- In the section on wind integration, add the following to both sets of notes: "Kyle Dittmer (CRITFC) asked what specific weather information would be needed to improve wind generation operations. Steve said having surface observations at 5-minute intervals (to help with rapid ramping up/down), new NWS product for wind-power users (currently geared for aviation users), and surface wind forecasts."

With that change made, the 1/29 sets of notes were considered final.

Water Supply Forecast Updates

COE representatives Kevan Schneidmiller, Joel Fenolio and Jim Adams reported on updated water supply forecasts for Dworshak and Libby. Dworshak's current elevation was 1527', with a "February final" April-July volume flow forecast of 100% of average (down from 115%) and an end of February elevation target of 1524.5'. Dworshak will likely use a one full unit (2.4 kcfs outflow) operation through the end of the month. Kyle Dittmer, CRITFC, noted a discrepancy between the COE (100%) and RFC (94%) forecast for Dworshak; the COE noted Dittmer's comment and said they were investigating the forecast differences and conferring with the RFC directly as to why the two forecasts were not more closely aligned. Results of that investigation will inform whether there will be any change to the planned operation. Libby's current elevation was 2407.9', with inflows of 2.6 kcfs and minimum outflows of 4 kcfs. Libby's "February final" April-August volume flow forecast was 86% of average and the end of February elevation target is 2436.4'. Libby will likely operate with minimum outflows for the remainder of February. Adams said the COE is also conferring with the RFC as to the downward trend in supply forecast percentages. Dittmer cautioned the federal agencies to proceed with caution, given the gap between Libby's current elevation and the end of February elevation target.

Fish Operations Plan / Fish Passage Plan Update

Jim Adams, COE, reported that the Fish Operation Plan (FOP) will likely be released for regional review sometime the week of February 16th. The Fish Passage Plan (FPP)

comment period is underway, with comments due back to the COE by 2/18; the COE will coordinate with FPOM and begin assimilating the 'final' version of the FPP on 2/19.

Operations Review

Reservoirs: Albeni Falls was in the range of 2051 - 2052'. Seven day average inflows were 26.3 kcfs at Lower Granite, 113 kcfs at McNary and 126 kcfs at Bonneville. Grand Coulee was at elevation 1280.3', with a slight increase to its end of the month elevation target of 1267'. Hungry Horse was at elevation 3518.11', with outflows in the range of 2.9-3 kcfs.

Fish: Nothing at this time.

Power System: Tony Norris, BPA, said that there will be two new standing links on the TMT homepage under "wind generation."

Water Quality: Nothing at this time.

Other: Jim Adams, COE, said that 2009 Pinniped monitoring reports will be posted to the TMT homepage; he noted the Stellar sea lion count is higher this year compared to similar dates in previous years.

Next TMT Meeting: February 25th, 2009 – at NOAA.

Agenda items will include:

- HDC 3-D Cam Updates
- Status of FPP / FOP
- Hanford Reach Protection Flows
- Operations Review

**Columbia River Regional Forum
Technical Management Team Meeting
Feb. 11, 2009**

1. Introduction

Today's TMT meeting was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (DS Consulting) with representatives of COE, BPA, NOAA, USFWS, BOR, FPC, 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. Review Meeting Minutes for Jan. 14 and 29, 2009

Jan. 14, 2009: There were no comments today on either the facilitator's notes or official minutes.

Jan. 29, 2009, regarding wind energy development: Kyle Dittmer (CRITFC) provided the following comment on his exchange with Steve Barton (BPA wind integration team): "Kyle Dittmer (CRITFC) asked what specific weather information would be needed to improve wind generation operations. Barton said that having surface observations at 5-minute intervals (to help with rapid ramping up/down), a new National Weather Service product for wind-power users (currently geared for aviation users), and surface wind forecasts." If the region is serious about developing wind energy, Dittmer said, we need to know the specific weather information needed. Weather Service products at present are geared more toward aviation than wind users. This comment will be added to the official minutes and facilitator's notes.

3. Update on HDC 3-D Cam's

This presentation was postponed to another TMT meeting, possibly Feb. 25, 2009, or sometime in March.

4. Updated Water Supply Forecasts

There's a general downward trend in the water supply forecasts. In an effort to conserve what water is available, the COE plans to operate one small unit at Dworshak until the end of February, Kevan Schniedmiller (COE) reported. The small unit passes 2300 cfs, and an additional 100 cfs flows through the hatchery, for a total outflow of around 2.4 kcfs.

The current elevation of Dworshak reservoir is 1,527 feet, about 2.5 feet above the end of February flood control elevation, 1,524.5 feet. There was discussion of the significant disparity between COE and RFC water supply

forecasts for Dworshak, which are 100% vs. 94% of average. The COE has been working with the RFC to reconcile the gap of 6 percentage points between the two. They use different methods – the COE does a principal components forecast and the RFC does a regression forecast, Tony Norris (BPA) said. Paul Wagner (NOAA) asked whether the Dworshak operation will change if the forecast changes as a result of the conversation between the COE and RFC. That’s possible, depending on the outcome, Adams said.

Libby is currently at elevation 2,407.9 feet, with inflows of around 2.6 kcfs. The project is operating at minimum outflows of 4.0 kcfs. Because the pool elevation is nearly 30 feet below the flood control elevation of 2,436.4 feet which is set by the February forecast of 5436 KAF– the planned operation is to continue minimum outflows for the foreseeable future, rather than operating to a flood control elevation, Adams said.

There is no large gap between the COE and RFC forecasts for Libby like there is for Dworshak, Joel Fenolio (COE Seattle) reported. The RFC February forecast for April-August is about 5,250 KAF looking at the graph of forecast comparisons between the Corps and RFC, and the COE forecast is 5,436 KAF, 86% of average. This week the RFC’s ESP forecast for Libby inflows dropped by about 500 KAF, a significant dip, so the COE is looking into that. Dittmer expressed concern about the low elevation at Libby and asked the Action Agencies to proceed with caution, given the potential for the reservoir not to refill by late spring. The project has been operating at minimum flows since the end of December and can’t go lower than that, Norris said. The average outflow from Libby in December 2008 was 18,000 cfs to achieve the end of December flood control elevation (2411 feet).

5. Status of Fish Operations Plan/Fish Passage Plan

The FOP is currently under internal review at the COE and will be released next week to the region for comments, Adams said. Meanwhile, the FPP comment period is already underway. The FPP comment deadline is Feb. 18. However, changes could be made to the FPP and the FOP depending on the outcome of the March 6th court hearing. Adams will email TMT when the Draft FOP is ready for review.

6. Pinniped Update

The COE is now posting weekly sea lion hazing reports, Adams reported. They can be accessed from the TMT page in the upper right hand corner under Other Fish-Related Documents. At least 6 California sea lions, 17 Steller sea lions, and 2 harbor seals have been seen. The number of Steller sea lions is higher than usual this year, Wills noted. Norris asked whether the sturgeon harvest will be restricted because of their impact; Wills said that’s up to the states

of Oregon and Washington. Dittmer asked whether the COE is using any new hazing techniques this year; Adams hadn't heard of any.

7. Operations Review

a. Reservoirs. Grand Coulee is at elevation 1,280.3 feet, holding its elevation and not drafting much, John Roache (BOR) reported. The end of April flood control elevation is 1,267 feet. The project is operating to meet the 11.5-foot tailwater elevation at Bonneville and maintain minimum flows of 60 kcfs at Vernita Bar.

Hungry Horse is at elevation 3,518.11 feet, with outflows of 2.9-3.0 kcfs. The January forecast was 99% of normal and the February forecast is 102% of normal. BOR does both a regression and principal components (PCA) forecast, which matched each other this month. The upper Snake basin has 95-100% of average snowpack and water supply, so it's one of the few basins doing well in terms of water supply at present. *{Additional clarification from John Roache: Reclamation identifies the Upper Snake Basin as that part of the Snake River Basin in the headwaters of the Snake River in eastern Idaho and western Wyoming. Reclamation calculates a water supply forecast for the Snake River at Heise, this forecast is coordinated with the Corp and sets flood control requirements for Palisades and Jackson Reservoirs. The "operating" February Water Supply Forecast for the Snake River at Heise is 95% of normal}.*

Libby is at elevation 2,407.9 feet; Dworshak is at elevation 1,527 feet. See the above discussion under Water Supply Forecasts.

Albeni Falls will continue to operate within the 1-foot range of 2,051-2,052 feet for the foreseeable future.

Seven-day average inflows are 26.3 kcfs at Lower Granite, 113 kcfs at McNary, and 126 kcfs at Bonneville.

b. Fish. There was nothing to report today.

c. Power System. For those who want to monitor wind generation development, Tony Norris (BPA) introduced two links to BPA's web page. The first is to a graph showing installed wind generation capacity, which has been continually increasing. As of Feb. 4, the region had 1,771 MW of installed wind capacity.

The second link is to a graph showing system loads in BPA's balancing authority area in comparison to actual wind generation (not capacity). At present, wind generation is only a few hundred MW, but on Feb. 9 it was almost 1,200 MW. This graph is updated every 5 minutes. Norris reminded TMT there is no

correlation between wind generation and loads. For future reference, these graphs will be linked to the TMT web page under miscellaneous reports.

d. Water Quality. There was nothing to report today.

6. Next Meeting

The next regular TMT meeting will be Feb. 25, 2009, followed by a site visit to The Dalles to view spill wall construction. The agenda will include an update on the Fish Passage Plan/Fish Operations Plan, Hanford protection flows, possibly the 3-d camera update; and the standard operations review. This summary prepared by consultant and writer Pat Vivian.

Name	Affiliation
Jim Adams	COE
David Wills	USFWS
Paul Wagner	NOAA
Tony Norris	BPA
Kyle Dittmer	CRITFC

Phone:

John Roache	BOR
Rob Diaz	Integral Renewables
Tom Le	Puget Sound Energy
Dave Benner	FPC
Kevan Schneidmiller	COE
Joel Fenolio	COE Seattle
Russ Kiefer	Idaho
Jonathon Hart	Eugene Water/Electric
Richelle Beck	DRA
Mike Butchko	Powerex
Tim Heizenrader	Centaurus
Shane Scott	PPC
Ruth Burris	PGE
Barry Espenson	CBB