

# COLUMBIA RIVER REGIONAL FORUM TECHNICAL MANAGEMENT TEAM

July 16, 2010

## FACILITATOR'S SUMMARY NOTES

Facilitator: Erin Halton

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.

### **Unscheduled TMT Meeting to Discuss Ice Harbor MOP Operations**

Karl Kanbergs, COE, began by noting that Minimum Operation Pool (MOP) for Ice Harbor Dam is 437.0 to 438.0 feet, and that the COE was concerned that the current MOP operation could cause the Lower Monumental tailwater to dip below its minimum tailwater elevation limit for safe barge passage. Karl provided the COE's proposed solution: Operate Ice Harbor to the upper half of MOP (437.5 -438.0) and change the hard constraint operating range to 437.5-438.5 feet to allow for the possibility of operating above MOP as needed to manage flows and safe passage. The COE wants to look in to ways to provide safe navigation, and planned to do a probe to understand depths of the sill at Lower Monumental to verify safe pool elevations. Karl suggested that the COE will work with its partners to do the best operation possible, given the circumstances.

Question: How will the COE resolve the issue beyond the short term? How long will it take? COE: Karl said the COE is working on this internally, and turned to Jeremy Giovando and Steve Hall, Walla Walla District, who responded that they plan to approach the problem using a three phase approach: For the near term, operate ½ foot above MOP; in the second phase, gather data within the next two weeks (hopefully sooner) to assess the cause of the problem and determine next steps; and thirdly, acquire additional and backup gauging equipment, which will be installed next fiscal year. Rick Kruger, Oregon, noted that MOP operations are important for the fish and suggested that the COE do its best to fix the problem as soon as possible. The COE added that over the next few days they will also determine whether navigation is safe with the use of probes.

Question: Could setting the minimum Lower Monumental tailwater elevation at 437.2 feet help the situation? COE: The COE would not be comfortable with this operation from a risk management perspective.

Question: Is this an ongoing problem? COE: A similar issue was seen last year at Lower Monumental and Ice Harbor, but for brief periods of time (duration of one or two hours at a time) and with minimal deviations. The issue at Little Goose and Lower Granite was much more severe last year and that was the focus going into this year's MOP operations. This year, however, there have been ongoing issues with the readings at Lower Monumental compared to those at the Ice Harbor forebay and the COE needs to investigate the reasons for this.

Question: Could it be wind related? COE: Low flows, below 40 kcfs, seem to be producing the pattern. The COE could look in to the potential impacts from wind but had not at this time determined it to be the cause.

TMT members present on the phone responded to the suggested path forward:

- Oregon: There does not appear to be many options for addressing the issue, at least in the near term. No objection to the COE's proposed path forward.
- NOAA: No objection to the proposed operation.
- BPA: Will do best to stay within the upper half of MOP, recognizing that conditions may require the project to go above MOP.

**Action/Next Steps:**

- The COE acknowledged that not all TMT members were able to participate on the call given the short notice, and planned to email and call those not present.
- The COE will provide the following instructions to the project via a teletype: The temporary Ice Harbor forebay range will be 437-438.5 feet; the project will operate to the upper half of MOP (437.5-438.0); and the goal is to maintain the minimum tailwater limit at the Lower Monumental tailwater navigation lock entrance to allow safe passage for barges.
- The COE will share all new information with TMT as it is gathered. Data will be presented at the 7/28 TMT meeting.

**Columbia River Regional Forum**  
**TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES**

**July 16, 2010**

Notes: Pat Vivian

**1. Introduction**

Today's TMT unscheduled conference call was chaired by Karl Kanbergs (COE) and facilitated by Erin Halton (DS Consulting). Representatives of the COE, BPA, NOAA, Oregon and others attended. This summary is an official record of the proceedings, not a verbatim transcript. Anyone with questions or comments about this summary should give them to the TMT chair or bring them to the next meeting.

**2. Ice Harbor MOP Operations and Lower Monumental Navigation Lock**

In response to an emergency situation involving navigational safety at Lower Monumental Dam, the COE convened today's call to discuss the possibility of going outside MOP operations at Ice Harbor Dam. Minimum operating pool at Ice Harbor is 437 to 438 feet. The COE may temporarily operate Ice Harbor at 437 to 438.5 feet elevation, or half a foot above MOP, until the navigation issue at Lower Monumental is resolved, Kanbergs said.

The problem occurs when Lower Monumental tailwater gage readings indicate that the navigation lock sill elevation is close to 437 feet, the lower limit per the Water Control Manual. When flows drop below 40 kcfs, water tends to "flow uphill," and the Lower Monumental tailwater elevation gage has lower elevation readings than the Ice Harbor forebay gage.

This problem has occurred before, in 2009, but only for an hour or so at a time. In April 2010, there were a number of days when Lower Monumental tailwater elevation was consistently lower than Ice Harbor forebay. Current elevations are 437.1 feet at Lower Monumental tailwater and 437.5 feet at Ice Harbor forebay. At these elevations, the COE is concerned that continuing MOP operations at Ice Harbor could compromise safe navigation at Lower Monumental. When water elevation at the sill of the navigation lock drops below the required minimum elevation of 437 feet, there's risk of a barge accident.

A temporary solution proposed by the COE is to operate Ice Harbor within the upper half of MOP, or from 437.5 to 438 feet, as a soft constraint, while setting the allowed forebay range from 437.0 to 438.5 feet. This means possibly exceeding MOP because BPA can't consistently keep the project within a half-foot range, Kanbergs said.

Rick Kruger (Oregon) asked how long this situation might last and how long it would take to resolve. The COE is taking a three-phased approach to solving it, Jeremy Giovando and Steve Hall (COE Walla Walla) explained.

- Phase 1 includes investigating the accuracy of forebay and tailwater gages at Lower Monumental and Ice Harbor, with the expectation that Ice Harbor could briefly exceed MOP by up to half a foot. The COE will use a probe to verify that an elevation of 437 feet provides the minimum required clearance over the Lower Monumental navigation sill.
- Phase 2 involves analyzing data, particularly GDACS 5-minute interval data. The COE Walla Walla district is planning to complete this analysis over the next two weeks and possibly sooner.
- Phase 3 involves purchasing additional gage equipment to confirm the accuracy of elevation readings at both projects. This solution has been successfully applied to the Lower Granite-Little Goose navigation problem, a similar situation that occurred last year. The COE hopes to purchase new gage equipment for Lower Monumental and Ice Harbor in FY 2010, but probably won't have funding to install the new gages until FY 2011.

The COE doesn't have much choice but to issue emergency instructions to project staff beginning this weekend, Kanbergs explained. The COE will notify, via voice mail and email, all TMT members who could not participate in today's call on short notice.

The temporary forebay elevation range at Ice Harbor will be 437 to 438.5 feet, with a soft constraint in the upper half foot of MOP (437.5-438 feet). This recognizes that actual elevation might exceed MOP by up to half a foot (438.5 feet). The purpose of this operation is to provide safe passage for barges, especially those carrying hazardous cargo. TMT members present on the call expressed their views of this operation.

- **Oregon** – Didn't object to the planned operation in light of safety concerns. Expressed misgivings about the potential for exceeding MOP for up to two weeks. Asked the COE to inform TMT of the results of the depth probing as soon as available, which the COE will do.
- **NOAA** – No objections to the proposed operation, given the situation.
- **BPA** – Every effort will be made to keep the Ice Harbor tailwater elevation within MOP, which means attempting to operate the project within a 6-inch elevation range (437.5 to 438 feet).

TMT will revisit Ice Harbor MOP operations at its July 21 conference call. In preparation for that discussion, as well as FPAC the day before, the COE will post graphs to the July 21 TMT meeting agenda showing hourly gage readings at Ice Harbor forebay and Lower Monumental tailwater, as well as hourly data on outflows at Lower Monumental tailwater.

## **10. Next Meeting**

The next TMT meeting will be a conference call on July 21, with Dworshak operations, McNary transport operations, and Ice Harbor/ Lower Monumental operations on the agenda.

<b><i>Name</i></b>	<b><i>Affiliation</i></b>
Karl Kanbergs	COE
Paul Wagner	NOAA
Scott Bettin	BPA
Rick Kruger	Oregon
Steve Hall	COE Walla Walla
Jeremy Giovando	COE Walla Walla
Doug Baus	COE
Laura Hamilton	COE
Dan Feil	COE
Margaret Filardo	FPC
Richelle Beck	DRA