

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

June 1, 2011

FACILITATOR'S SUMMARY NOTES

Facilitator: 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.

Minutes Review

TMT reviewed the Official Meeting Minutes and Facilitator's Notes from the 5/18, 5/20 and 5/25 TMT meetings. One change was suggested: in the 5/18 Official Minutes, under the fish update, 9 million steelhead had passed Lower Granite, not 11.5 million.

With this change, the notes were considered final.

Vernita Bar update

Russell Langshaw, Grant County PUD, shared an update and accompanying slides on the Priest Rapids operation. He reported that tailrace temperatures were warming but still cooler than normal. He suggested it would be another three weeks to get to the 1400 temperature units from end of spawning (1149.1 tu's). Priest Rapids operations from 4/28-5/27 showed average daily discharges were 298.2 kcfs, well above the 50 kcfs minimum for the operation. Fish were moving but not many were observed stranded or entrapped. Tom Lorz, CTUIR/CRITFC, said CRITFC will be out later in the week to collect and tag fish. Everyone acknowledged that the fish will be found in unique places this year given the high flows! Russell will provide another Vernita Bar update at the 6/15 TMT meeting.

Little Goose Powerhouse Outage Update

Steve Barton, COE, updated TMT from last week that work on the transformer had been completed yesterday (5/31) at Little Goose. However, the transformer was not able to come back on line and operators were investigating the cause for this problem. As such, the powerhouse was still out of service at the time of this TMT update, but it was reported the project would be back on line by noon today.

Steve also reported that The Dalles navigation lock work had been completed and the project was back to fully functioning as of 5/26. Doug Baus, COE, reported that collection and transportation of juvenile fish had resumed at Little Goose, Lower Granite and Lower Monumental Dams.

Libby Operations Update

Steve Barton, COE, reported that Libby was operating at 23 kcfs outflows to manage refill at the project. Temperatures had dropped a bit over the weekend. The sturgeon accounting had not yet begun, and the project was still operating to flood control. In response to a question, Steve said the preferred depth for sturgeon had not quite been

met, and elevations had not yet touched flood stage at Bonners Ferry. Operations would not likely shift during the near term given the residual snow pack and impending runoff, and high flows expected to continue. Scott Bettin, BPA, reported that 8 fish had been observed above Bonners Ferry. Steve suggested that TMT discussions will focus on shaping later summer flows once the peak has passed. This item will be added to TMT agendas throughout the summer.

Operations Review

Reservoirs – Steve Barton continued with his report on COE projects. Albeni Falls was at elevation 2061.7 feet, with 99.2 kcfs outflows. Dworshak was at elevation 1537.2 feet, with 19.4 kcfs inflows and 6.9 kcfs outflows. The project was targeting full pool around July 1. Steve Hall, Walla Walla District, said daily fluctuating discharges at the project were due to load shaping to minimize spill – in an effort to support system-wide efforts. Priest Rapids daily average outflows were 326.1 kcfs; Lower Granite daily average outflows were 157.2 kcfs; McNary outflows were 473.5 kcfs; and Bonneville outflows were 504 kcfs (nearing its targeted outflow of 525 kcfs). Vancouver and Portland were very near their respective flood stages, and the Willamette had some space left to help allay the high water issues as needed.

John Roache, Reclamation, reported that Hungry Horse was at elevation 3498.71 feet with 8 kcfs outflows. Columbia Falls was expected to reach flood stage this week. Grand Coulee was at elevation 1234.6 feet and refill was being managed for flood control. The project was currently passing inflow. It was reported that a motion had been filed with Judge Redden for a temporary restraining order on spill at Grand Coulee, and this motion was denied.

Fish – Paul Wagner, NOAA, reported on the adult migration. The last of the Spring Chinook counts had concluded at Bonneville Dam, now moving in to Summer counts. The spring Chinook migration was late and counts were high at Bonneville this year. Jacks were still coming in and counts were very high, with a total count so far 400% above average at Bonneville. Adult passage was not as high at the other projects due to the high flows; Ice Harbor daily counts dropped from 1,500 to 150. Adult passage at Little Goose was still strong during the outage and with spill at 100% instead of 30% -- given the unique flows, it was not certain if and how spill patterns vs. flows were influencing passage at the project.

The yearling Chinook migration was winding down, with counts at Lower Granite at 3,751; 7,500 at Lower Monumental; and 30,000 at McNary. Subyearling numbers were picking up at Lower Granite, Little Goose, Lower Monumental and McNary. Sockeye had mostly passed, though 5,400 were counted at John Day. Lamprey passage peaked in May and counts were now down. Steelhead numbers remained high at Lower Granite and in the Lower Snake.

Doug Baus, COE, reported Bonneville Dam powerhouse 2 fish screens had been removed. Units 14,15, and 16 were removed from May 19-21 and Units 12, 13, 17, and 18 were removed May 24-26. Given the high flows, the screens were not likely to go

back in soon – protocols from the Fish Passage Plan were being used to manage removal and reinstallation of the screens. This operation is being coordinated in FPOM.

Margaret Filardo, Fish Passage Center, reported on gas bubble trauma. At Lower Monumental, 23% of the fish showed signs of trauma. Sampling was scheduled again today at this project and McNary, and at Rock Island on 5/2. The salmon managers would continue to monitor this data and report out to TMT at a future meeting.

Water quality – Scott English, COE, reported that TDG levels were high throughout the Columbia Basin due to the high flows. The Cascade Island fixed monitoring station, Bonneville Dam's tailwater FMS (CCIW) was out of service since May 17th due to damage by debris and high flows. USGS can make repairs to the CCIW FMS can be made once Bonneville spill drops below 235 kcfs. In the meantime we are using an analog for CCIW using WRNO when both FMS were operational.

Power system – Nothing to report.

Other – A question was raised about the COE's plans to do a sediment survey around Lower Granite once the flows recede and in an effort to determine next steps to address navigation issues at the project that have been discussed at TMT. Steve Barton and Steve Hall will provide an update on this at TMT in late June or early July.

Next Meeting, 6/8 (Conference Call): Placeholder as Needed

Participants should check the TMT website on 6/7 for an update on agenda and/or cancellation of this meeting, which will be determined by the TMT.

Next Face to Face Meeting, 6/15

The agenda will be developed over the next week. Suggested agenda items should be shared with Steve Barton, Doug Baus or Robin Gumpert.

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM OFFICIAL MINUTES

June 1, 2011

Notes: Pat Vivian

1. Introduction

Today's TMT meeting was chaired by Steve Barton, COE, and facilitated by Robin Gumpert, DS Consulting. Representatives of NOAA, COE, CRITFC/ Umatilla, BPA, Montana, Oregon, Washington, BOR, the Colville Tribe, Nez Perce Tribe, Idaho and others attended. This summary is an official record of the proceedings, not a verbatim transcript. Questions or comments should be directed to the TMT chair.

2. Review May 18, 20 and May 25 Meeting Minutes

Charles Morrill, Washington, commented on the May 18 official minutes. In the juvenile section of the fish portion of the operations review, 11.5 million steelhead should be 9 million steelhead. With this change, the official minutes and facilitator's notes are considered final.

3. Vernita Bar Update

The cold trend continues although warming is occurring at an expected rate, Russell Langshaw, Grant PUD, reported. At 1,149 ATUs, the protection program will continue until 1,400 ATUs is reached, or for approximately 3 more weeks. The figures attached to this item on today's agenda show redd and tailrace temperatures, program operations from April 28 to May 27, and constraints on Priest Rapids Dam over the past 7 days. Discharges are high and have been well above the 50 kcfs minimum for some time. The mean over the past 7 days is 298.2 kcfs, and the daily delta has been 61.6 kcfs. Daily delta constraints were 150 kcfs over the last 7 days.

Paul Wagner, NOAA, asked about the stranding study. WDFW workers have been seeing lots of fish but few entrapments because the banks are so steep at these flows, Langshaw replied. Tom Lorz said a CRITFC fishery crew will be collecting and marking fish in that area over the coming week. They will look for stranded fish but haven't seen many so far this year. Langshaw will give another update on the Vernita Bar operation at the June 15 TMT meeting.

4. Little Goose Dam Update

Last week the COE notified TMT members via email that the Little Goose powerhouse outage was extended until yesterday, Barton reported. Although the work on the transformer has been completed, the powerhouse remains out of service. Workers trying to reconnect to the grid keep receiving a trip signal.

Barton said COE and BPA crews have been working around the clock to determine whether part of all of the units can be brought back on line. Barton will update TMT this afternoon via email on the Little Goose powerhouse outage.

Normal juvenile transportation operations have resumed at Lower Granite, Little Goose, and Lower Monumental, Barton reported. Although there are few fish to collect at Little Goose with the dam on 100% spill, crews have been picking up whatever fish are present.

5. Libby Dam Operations

Temperatures dropped over the weekend and the project is discharging 23 kcfs, mainly to manage refill, Barton said. There has been no sturgeon flow accounting yet, and the project remains on flood control operations. There is little temperature control available at present because the forebay is not stratified, Scott Bettin, BPA, reported. The last report was of 8 sturgeon seen in the area.

Barton reported the Bonners Ferry stage peaked at 1,761.6 feet and receded slightly. It is expected to rise again, but not to flood stage of 1,764 feet. At this point, there's no significant difference between operating for flood control and spilling for sturgeon at Libby. Once Libby peak inflows are past, there will be more for TMT to discuss in terms of managing water in July through September. With the volume of water this year, there's a 10-foot draft requirement down to elevation 2,449 feet at the end of September for flow augmentation. TMT will revisit Libby operations at its next meeting in person on July 15.

6. Operations Review

a. Reservoirs. Albeni Falls peak inflows exceeded 100 kcfs; inflows were 94.7 kcfs yesterday. Project elevation is 2,061.7 feet, with lots of snow pack and more volume coming.

Dworshak inflows are 19.4 kcfs, with daily average discharges of 6.9 kcfs and an elevation of 1,537.2 feet. The project is on a trajectory toward full pool at 1600 feet and is currently discharging to manage refill. A 24-hour differential in discharges is the result of load shaping to minimize the amount of involuntary spill, Steve Hall, COE, explained.

Priest Rapids is discharging 326.1 kcfs as Grand Coulee continues to release elevated flows for flood control. Lower Granite has had daily average flows above 200 kcfs, with current flows of 157.2 kcfs and increases forecast over the next week. McNary is discharging 473.5 kcfs, with a peak daily average of 500 kcfs. Flows are well over their seasonal objectives.

Bonneville has been discharging more than 500 kcfs per day in order to manage refill with an increasing water supply forecast. Vancouver is currently at

17.4 feet elevation, which is above flood stage at 16 feet. Portland is at 17.1 feet with flood stage at 18 feet. These conditions are likely to persist over the coming weeks, and elevations could rise if precipitation continues to be above normal, Barton said. There is some space in the Willamette watershed that could be used to help shave the peak off flows into the Portland/Vancouver area.

Doug Baus, COE, gave an update on the Bonneville 2nd powerhouse screen removal operation. On May 19-21, the fish screens were pulled from units 14-16. On May 24-26, the remaining screens were pulled from units 12, 13, 17 and 18, leaving the 2nd powerhouse without screens. Rising tributary levels or additional water volume could bring more debris, Barton said.

Hungry Horse is at elevation 3,498.71 feet, with 8 kcfs releases. More runoff is expected in June. The River Forecast Center predicts that Columbia Falls will hit flood stage this week. Grand Coulee is at elevation 1,234.6 feet and passing inflows. It is expected to refill as temperatures rise.

b. Fish. Adults: The spring Chinook run didn't start until late April this year, then it took off and declined as expected, with 2,000 fish passing Bonneville yesterday. Summer Chinook passage begins today. This year's jack migration at Bonneville is 400% of average, generally a sign that next year's run will be good. High flows are keeping fish from passing other projects at the expected rate – less than 1,000 fish are passing John Day and McNary per day. Ice Harbor passage dropped from 1,500 to 150 fish per day. Apparently 100% spill at Little Goose has not affected fish as adversely as it could have, although some 12,000 fish remain unaccounted for between Lower Monumental and Little Goose pool. There was agreement that this deficit was not caused by 100% spill at Goose.

Juveniles: Yearling chinook smolt passage peaked in May and is nearing its typical end in June. The most recent index count was 3,700 fish at Little Goose. Lower Monumental passed 7,500 fish. Subyearling hatchery releases are showing up at Lower Granite, Lower Monumental, Hanford reach and the lower river projects. Sockeye hatchery releases have passed Lower Granite, Little Goose and Lower Monumental, as well as the mid Columbia projects. There has been no lamprey passage on the Snake River recently. Peak lamprey passage at the mid and lower Columbia projects was on May 22.

GBT data: Margaret Filardo, FPC, reported that the high flows have led to significant increases in fish with gas bubble trauma. At Lower Monumental, 23% of fish were found with GBT symptoms, while at Rock Island it was 37%. At the current levels of TDG, fish tend to display more severe signs as time progresses.

c. Power. There was nothing to report today.

d. Water Quality. Scott English, COE, reported that TDG levels were high throughout the Columbia Basin due to the high flows. The Cascade Island fixed

monitoring station, Bonneville Dam's tailwater FMS (CCIW) was out of service since May 17th due to damage by debris and high flows. USGS can make repairs to the CCIW FMS once Bonneville spill drops below 235 kcfs. In the meantime we are using an analog for CCIW TDG production using WRNO when both FMS were operational.

7. Next Meeting

A TMT call was tentatively scheduled for June 8. The next regular meeting in person will be on June 15.

Name	Affiliation
Steve Barton	COE
Paul Wagner	NOAA
Tom Lorz	CRITFC/Umatilla
Scott Bettin	BPA
Tony Norris	BPA
Jim Litchfield	Montana
Rick Kruger	Oregon
Doug Baus	COE

Phone:

Charles Morrill	Washington
John Roache	BOR
Sheri Sears	Colville
Laura Hamilton	COE
Tim Heizenrader	Centaurus
Bruce McKay	consultant
Russ George	WMC
Barry Espenson	CBB
Alex Cibarra	Grant PUD
Russell Langshaw	Grant PUD
Richelle Beck	DRA
Scott English	COE
Dave Benner	FPC
Bill Rudolph	NW Fish Letter
XX	Thompson Reuters
Dave Statler	Nez Perce
Mike Shapley	Snohomish PUD
Steve Hall	COE
Shane Scott	PPC
Russ Kiefer	Idaho