

# COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

February 17, 2016

DRAFT Facilitator's Summary

Facilitator: Charles Wiggins; Notes: Tory Hines DS Consulting

*The following Facilitator's Summary is intended to capture basic discussion, decisions and actions, as well as 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 Meeting Minutes**

The January 20th, January 27th and February 3rd Official Minutes and Facilitator's Summary were approved.

## **Update Water Supply Forecast**

Doug Baus, COE-NWD, provided an update on the official February water supply forecast which is posted on the TMT website. Mary Mellema, BOR, noted that the forecast volumes for the final February forecast for Hungry Horse Dam inflow:

- February-July: 1,837 kaf (90%)
- January- July: 1,885 kaf (90%)
- April-August: 1,742 kaf (90%)
- May-September: 1,524 kaf (90%)

Mary also noted that the minimum flows downstream of Hungry Horse are as follows:

- Columbia Falls: 3,480 cfs
- Hungry Horse: 860 cfs

Doug provided official February forecasts for the USACE projects:

- The Dalles April-August: 83 maf (95%)
- Lower Granite April-August: 21 maf (95%)
- Libby April-August: 6,318 kaf (107%)
- Dworshak April - July: 1,986 kaf (82%)
- Grand Coulee April-August: 54 maf (96%)
- Albeni Falls April-September 12 maf (90%)

Paul Wagner, NOAA, noted that inflows increased dramatically at Dworshak, he asked if this was due to snow melt or recent rainfall. Doug stated that the inflow increase was a combination of melting snow and rain as air temperatures rose over the last few weeks. Dave Statler, Nez Perce, asked how recent snow melt impacts the April to July runoff average of 82%. Steve Hall, USACE-Walla Walla, stated he did not believe recent snow melt and rain changed the April to July runoff volume. Dworshak is on minimum discharge and the recent spike in temperatures has only affected low elevation snow, the primary higher elevation snowpack remains intact. Steve also noted that throughout Idaho there is more snow in low lying areas than in previous years, this has impacted runoff volumes at Dworshak.

Doug continued with the NWRFC forecast, noting that as of February 17th, The Dalles is at 97% of average and 85 maf. The snow water equivalent in the Cascade Region is declining, yet many sites remain above average. The forecasts are available on the TMT website. Dave Statler asked how the early runoff and changing weather patterns will impact spring flows and irrigation. Dave also noted that following a drought year, reservoirs tend to be lower and will need more water to fill. Mary stated that current conditions for the entire Snake River system are at 61% of capacity. The Upper Snake is close to average at 61%, the Northern Basin is 55% of capacity and the Boise system is at 51% of capacity. Overall, the Boise system is near average and the Payette has a good chance of filling this year.

### **Chum Protection Operation**

Paul reported on the chum operation noting that BON tailwater remains above the minimum protection level. There is uncertainty if protection level will be adequate in March after drafting occurs for drumgate maintenance. As Dave noted, the chum incubation period will continue through to April 15. Charles Morrill, WA, stated that chum fry emergence is occurring at Hamilton Springs, Gray's River, Crazy Johnson and Duncan Creek. Doug noted that the Corps will continue to operate above the 12.2ft minimum elevation until coordinated differently. As of February 17th at 0700 hours, the Bonneville tailwater elevation is at 18.7ft.

- **ACTION:** The Action Agencies will continue operating Bonneville with a tailwater minimum of 12.2ft.

### **Operations Review:**

#### **Reservoirs:**

Lisa Wright, COE, reported on Corps projects:

- Libby midnight elevation was 2,410.3ft, with 4.1kcfs inflow and 4.1kcfs outflow.
- Albeni Falls midnight elevation was 2,052.6ft, with 22.8kcfs inflow and 17.5kcfs outflow.
- Dworshak midnight elevation was 1,536.5ft, with 19.2kcfs inflow and 1.6kcfs outflow.
- Lower Granite average inflow was 57.4kcfs.
- McNary average inflow was 169.1kcfs.
- Bonneville average inflow was 194.9kcfs

Mary Mellema, BOR, reported on Reclamation projects:

- Hungry Horse midnight elevation was 3,516ft, with 1.6kcfs outflow.
- Grand Coulee elevation was 1,271.1ft.

Mary noted that Grand Coulee will be drafted to 1,255ft for drumgate maintenance by March 14th, 2016. She continued that once Grand Coulee is drafted down it will remain at 1,250-1,255ft for 8 weeks. Erick Van Dyke, OR, stated that there is a continued need to address alternatives to drawing down the reservoir during drumgate maintenance.

Mary noted at this time, the maintenance requires drawing down the reservoir and installing scaffolding. The scaffolding will be in place next week, and by February 22nd,

the reservoir will be in a range of 1,270ft or lower. Sheri Sears, Colville, asked if the maintenance work will be conducted by an outside contractor. Mary noted that maintenance will be done by Reclamation and that hiring a contractor would lengthen the time to complete the project. She also stated that it is uncertain how many drumgates will require maintenance, but all 11 will be inspected. Dave asked why Hungry Horse is below the flood control rule curve. Mary noted that last year Hungry Horse drafted 20ft for flow augmentation. Since then, it has operated at the Columbia Falls minimum for bull trout and it is standard operation to draft below to meet flood control.

**Fish:** Paul Wagner, NOAA, reported on fish. He noted that all adult ladders are down for maintenance, so no counts are available. For juveniles, nothing to report other than chum fry emerging from Hamilton Springs. Dave noted that Pacific lamprey are moving downstream which is a regular occurrence every winter.

**Water Quality:** Laura Hamilton, COE-NWD, noted that all gauges are functioning. There are no spills in the system to note.

**Power System:** Nothing to report.

**The next TMT meeting will be a conference call on March 2nd at 9:00am.**

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

**February 17, 2016**  
Minutes: Pat Vivian

***1. Introduction***

Representatives of BPA, Washington, NOAA, Oregon, Idaho, COE, USFWS, BOR, Nez Perce, Yakama, Colville and Umatilla tribes participated in today's TMT meeting chaired by Doug Baus, COE, and facilitated by Charles Wiggins, DS Consulting. This summary is an official record of the conversation, not a verbatim transcript.

***2. Review Meeting Minutes for January 20, 27 and February 3***

The facilitator's notes and official minutes for January 20, 27 and February 3 were approved as final.

***3. Update on Water Supply Forecast***

Baus and Mary Mellema, BOR, provided the following forecasted water supply volumes upstream of the following projects:

- Hungry Horse (February-July) – 1837 kaf, 90% of average  
(January-July) – 1885 kaf, 90% of average  
(April-August) – 1742 kaf, 90% of average  
(May-September) – 1524 kaf, 90% of average

Columbia Falls minimum flows (May-September) are 3480 cfs  
Hungry Horse minimum flows are 860 cfs until the March forecast

- The Dalles (April-August) – 83 maf, 95% of average
- Lower Granite (April-August) – 21 maf, 98% of average
- Libby (April-August) – 6318 kaf, 107% of average
- Dworshak (April-July) – 1986 kaf, 82% of average
- Grand Coulee (April-August) – 54 maf, 96% of average
- Albeni Falls (April-September) – 12 maf, 90% of average

Paul Wagner, NOAA, asked whether the increase in Dworshak inflows is due to rain or snowmelt. It's primarily the result of rainfall and low elevation snowmelt, not high-elevation snowpack, Steve Hall, COE, replied. Dave Statler, Nez Perce, asked how this increased runoff will affect the April-July runoff volume. Dworshak inflows have been low to date, and the project is below its flood control elevation, releasing minimum discharges and storing water, Hall replied.

According to RFC SNOTEL site readings, there has been a reduction in snow water equivalents throughout the basin since TMT last met. Nevertheless, overall runoff volume at The Dalles is still close to average. Statler asked how irrigation needs might impact spring flows given the early runoff this year. Storage in the upper Snake River, is currently at 61% of capacity, which is about average for mid-February, Mellema replied. This was the wettest December on record, added Tony Norris, BPA.

#### **4. Chum Protection Operation**

Bonneville Dam continues to operate well above the 12.2 ft minimum tailwater elevation coordinated at TMT for chum protection, Baus reported. Current BON tailwater elevation is 18.7 ft. There was discussion regarding the potential for maintaining the chum operation in mid-March to mid-April since Grand Coulee Dam will be operating in the range of 1250-1255 feet for drum gate maintenance.

Charles Morrill, Washington, reported that chum fry have already begun to emerge in the Crazy Johnson Creek, Duncan Creek, Hamilton Springs and Hamilton Creek areas.

#### **5. Operations Review**

**5a. Reservoirs.** Mary Mellema, BOR, and Lisa Wright, COE, reported.

Hungry Horse is at 3516 ft elevation, well below its flood control target, releasing 1.6 kcfs. Inflows are up slightly. Statler asked why Hungry Horse has been drafting below its flood control elevation. The project has been operating to Columbia Falls minimum flows for bull trout downstream ever since 20 ft was drafted out of it last year for upper Snake flow augmentation, Mellema replied. Historically Hungry Horse has drafted below flood control many times to meet Columbia Falls minimums.

Grand Coulee is at elevation 1271.1 ft, drafting to 1255 ft by March 14 for drum gate maintenance. Coulee will operate at 1250-1255 ft for the duration of drum gate maintenance period which is anticipated to last for 8 weeks. Scaffolding will be installed starting next week. Beginning February 22, GCL will operate in the 1270-ft and lower elevation range. The BOR will do the work in-house beginning with inspection of all 11 drum gates.

Libby is at elevation 2410.3 ft, passing inflows of 4.1 kcfs. Albeni Falls is at elevation 2052.6 ft with inflows of 22.8 kcfs and releases of 17.5 kcfs. Dworshak is at elevation 1536.5 ft with 19.2 inflows, discharging minimum flows of 1.6 kcfs. Lower Granite outflows are 57.4 kcfs, McNary outflows are 169.1 kcfs, and Bonneville outflows are 194.9 kcfs.

**5b. Fish.** Except for chum fry emergence, there was nothing to report today. Many of the adult ladders are down for maintenance, Wagner said. It's likely that Pacific lamprey, primarily macrophthalmia, are moving downstream with the winter runoff, Statler added. There is currently no way to monitor lamprey passage at the dams.

**5c. Water Quality.** Laura Hamilton reported that all gauges are functioning well, and there has been no system-wide spill.

**5d. Power.** There was nothing to report today.

## **6. Next TMT Meeting**

TMT will meet next in a March 2 conference call.

<b>Name</b>	<b>Affiliation</b>
Tony Norris	BPA
Charles Morrill	Washington
Paul Wagner	NOAA
Erick Van Dyke	Oregon
Lisa Wright	COE
Doug Baus	COE
Tory Hines	DSC
David Swank	USFWS
Scott Bettin	BPA
Mary Mellema	BOR
Dave Statler	Nez Perce
Laura Hamilton	COE
 <i>Phone:</i>	
Pete Lyman	PGE
Michael Bryant	CBB
Tom Iverson	Yakama
Russ Kiefer	Idaho
Sheri Sears	Colville
Tom Lorz	CRIFC/Umatilla
Steve Hall	COE