

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

March 16, 2022

Facilitator's Summary

Facilitation Team: Emily Stranz & Nancy Pionk, 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; it is not intended to be the "record" of the meeting. Official minutes can be found on the TMT website: <http://pweb.crohms.org/tmt/agendas/2022/>. Suggested edits for the summary are welcome and can be sent to Nancy at nancy@dsconsult.co

Review Meeting Summaries & Minutes - TMT Members approved the official meeting minutes and the facilitator's summary from the March 3 meeting and the facilitator's summary for the 2021 Year End Review with no additional edits.

Official Water Supply Forecasts - Joel Fenolio, BOR, reported the official March 1 residual water supply forecast for Hungry Horse Dam. March through July is 2,140 kaf, or 102% of average, and May through September is 1,700 kaf, or 96% of average.

Doug Baus, Corps, reported official March water supply forecasts for Corps of Engineers projects:

- **The Dalles:** NWRFC April to August volume forecast is 86 maf, or 97% of average.
- **Lower Granite:** NWRFC April to July volume forecast is 15 maf, or 77% of average.
- **Libby:** Corps NWS March runoff forecast April to August is 6,972 kaf, or 115% of average.
- **Dworshak:** Corps NWS February runoff forecast April to July is 2,669 kaf, or 108% of average.

Flow Augmentation Prospects 2022 - Joel provided an update on 2022 Flow Augmentation Prospects for the Upper Snake River. He noted the total estimated flow augmentation volume for the entire system is 290 kaf and individual systems as follows:

- **Upper Snake System:** 54.4 kaf; Upper Snake is 75-79% of average; Middle Snake is 65-80% of average.
- **Payette:** 116 kaf.
- **Boise:** 41 kaf.

Joel noted that southern Idaho is experiencing a severe drought and it looks unlikely that there will be any rentals or that flow augmentation volumes will hit 427 kaf. Joel noted that the 2008 BiOp includes a target of 487 kaf; and 427 kaf is a fallback target, given water year conditions. If the 427 kaf target is not met, this will be the first time since 2008. Claire McGrath, NOAA, acknowledged that the 427 kaf is not obtainable every year and that the conditions in the Snake are dire. She appreciated the early coordination and noted that Reclamation's annual report on Upper Snake Flow Augmentation is a good resource for those who want to learn more about the operations: <https://www.usbr.gov/pn/fcrps/hydro/uppersnake/index.html>. Erick Van Dyke, OR, asked for clarification on the 2021 carry-over. Joel said that the carry-over in 2021 was really low at 847 acre-feet, that is compared to the 2020 carry-over of 2 million acre-feet.

Chum Operation - Doug reported that there has been no change to the chum operation since the last TMT meeting. The incubation phase, during which Bonneville Dam will be operated to a minimum tailwater of 13 feet, will continue through April 9 (spill season starts on April 10) unless otherwise coordinated at TMT. On March 16 at 0800 hours, Bonneville tailwater elevation was 16.3 feet, with a total outflow of 196.8 kcfs.

Grand Coulee Elevation - Joel noted that the Grand Coulee drum gate maintenance has started and is expected to go through late-April/early-May. The elevation during drum gate maintenance is 1,250 to 1,255 feet.

Spill Priority List - Dan Turner, Corps, shared the draft Spill Priority List (SPL) for Spring 2022. He noted that the priority order of spill was adjusted last year, moving Little Goose down in the order to Priority 6 and Lower

Monumental down to Priority 7. Spill caps at the lower Columbia and lower Snake projects are defined for the state water quality standard of 125% TDG with conditions for ESA coverage. The example spill cap for Lower Monumental changed from 104 to 106 kcfs based on SYSTDG modeling. It was noted that The Dalles has a percent spill (40%) instead of a spill cap for 125% TDG. Dan will add the 125% TDG parameter to the SPL. Tony noted that BPA schedulers spill in this priority order during Lack of Load conditions when it is physically possible to do so; an exception is if a project is at minimum generation and cannot reduce generation any further. Dan noted that the SPL does not capture all the nuances of planned fish passage spill and any in-season changes to the order of the SPL can be discussed at TMT meetings.

Systems Operational Request: 2022-2 - Jonathan Ebel, FPAC Chair, presented SOR 2022-2, which requests that the Bonneville Dam Powerhouse 2 Corner Collector (B2CC) remain open until 13:00 on March 20 to help improve the dam passage survival of the emergency release of 10.8 million juvenile fall Chinook from Spring Creek National Fish Hatchery. The emergency release is due to a disease outbreak that infected some, but not all the fish. Dave Swank, USFWS, noted that this request was being made to provide the best possible passage survival for these fish and keeping the B2CC open until this date should provide well over 90% passage of the release. Tom Lorz, CRITFC, noted that not all fish were diseased. There were five ponds of fish (approximately 1.5 million fish) in relatively good condition; however, the decision was made to release all the fish at the same time to avoid further contamination. Tom noted that typically the B2CC would have been open at this time if the kelt criteria were met.

TMT Members were polled on the SOR:

TMT Member	Polling Response	Rationale (optional)
NOAA	Supports	No additional comments.
OR	Supports	OR appreciates the support for this operation.
WA	Supports	No additional comments.
Umatilla Tribe	Supports	No additional comments.
Reclamation	Supports	No additional comments.
Corps	Supports	No additional comments.
USFWS	Supports	USFWS appreciates the Corps and BPA support for the operation during this highly unusual event at the hatchery.
ID	Supports	No additional comments.
MT	Supports	No additional comments.
Nez Perce	Supports	No additional comments.
BPA	Supports	No additional comments.
The Colville, Kootenai, Spokane and Warm Springs Tribes were not present to register a polling response.		

Action Agencies' Decision

The Corps and BPA will implement the SOR as described.

- **ACTION:** The B2CC will remain open until 13:00 March 20, after which the B2CC will operate as described in the 2022 Fish Passage Plan (FPP).

Initiation of the Juvenile Transportation Program - Doug reviewed the planned start date for the Juvenile Transportation Program, as described in the FOP and coordinated with TMT Members. Juvenile collection will begin on April 23 at Lower Granite, Little Goose and Lower Monumental with the first barge departing on April 24. Claire suggested that TMT Members bookmark January 2023 to begin discussions for the 2023 Juvenile Transportation Program.

Questions or comments from members of the public: There were no questions or comments from members of the public

The next scheduled TMT meeting is a conference call on April 6, 2022, at 9:00 AM.

Columbia River Regional Forum

Technical Management Team

OFFICIAL MINUTES

March 16, 2022

Minutes: Melissa Haskin, BPA (contractor, FLUX Resources)

Today's TMT meeting was held via conference call and webinar, chaired by Doug Baus, Corps, and facilitated by Emily Stranz, DS Consulting. A list of today's attendees is available at the end of these minutes.

1. Review of Official Minutes and Summaries

The facilitator's summary for the 2021 YER was approved with no additional changes. Additionally, the facilitator's summary and official minutes for the March 2 meeting were approved with no additional edits.

2. Official Water Supply Forecasts

Joel Fenolio, Reclamation, reported on the official March water supply forecast for Hungry Horse Dam. Residual forecast for March through July is 2,140 kaf, or 102% of average. The May through September forecast is for 1,700 kaf or 96% of average.

Doug Baus, Corps, reported official March water supply forecasts for Corps projects.

- **The Dalles**: NWRFC April to August volume forecast 86 maf (97% of average).
- **Lower Granite**: NWRFC April to July volume forecast 15 maf (77% of average).
- **Libby**: Corps NWS January runoff forecast April to August 6,972 kaf (115% of average).
- **Dworshak**: Corps NWW January runoff forecast April to July 2,669 kaf (108% of average).

3. Flow Augmentation - Joel Fenolio, Reclamation

Fenolio reported that southern Idaho is experiencing severe drought conditions. Currently, the Upper Snake above Milner Dam is at 75-79% of average; the Hi-C is at 75%; and the middle-Snake projects are running 60-80% of average.

The potential flow augmentation volume out of the upper Snake is 290,000-acre feet and there will most likely be no rentals available, given the dry conditions. Unless things turnaround in April and May, the 427,000 acre-feet lower end target will be missed. This is the first time this has happened since the BiOp was signed in 2008. Current forecasts have the upper Snake at 77,000 acre-feet (up 23,000 acre-feet from last year). Predictions on the Payette are 116,000 acre-feet. The region usually gets 120,000 acre-feet. The Boise will likely be at or near 41,000 acre-feet. This could go up or down, depending on the weather over the next few months. These dry conditions follow last year's dry conditions, which exacerbates the issue.

Fenolio explained that per the 2008 BiOp, the target is typically 487,000 acre-feet. The fallback is to use powerhead out of Palisades or Anderson Ranch to hit 427,000 acre-feet. In years like this, the region needs rentals. Some years, even 427,000 acre-feet is not attainable. This may be one of those years.

Erick Van Dyke, OR, asked about carryover. Typically, carryover is 1.5-2.5 million acre-feet. This year, there is only 840,000 acre-feet.

Claire McGrath, NOAA, commented that NOAA realizes the grim forecast and appreciates the early coordination. McGrath added that Reclamation provides NOAA with an annual report as part of the BiOp. This information is publically available and may provide some context for TMT members. It can be found by searching the internet for “Upper Snake Flow Augmentation Annual Report.”

4. Chum Operation – Doug Baus, Corps

Baus updated the TMT on chum operations coordinated at TMT and available on the TMT website. As coordinated, the chum operation transitioned from spawning to incubation on December 24 at 0001 hours with a Bonneville Dam minimum tailwater elevation of 13 feet all hours. Incubation will continue until the start of spring spill on April 10, unless coordinated otherwise at TMT.

There have been no changes to the operation since the last update.

The Bonneville Dam tailwater elevation at 0800 hours was 16.3 ft. Outflow was 196.8 kcfs. Fenolio added information about Grand Coulee, which may affect chum at some point. He noted that the forebay elevation is below 1255 ft and drum gate maintenance has started. During the work, the forebay will be operated in a 5-foot operating band of 1,250 to 1,255 ft. Maintenance will continue through the end of April and possibly into the first part of May.

5. Spill Priority List - Dan Turner, Corps

Dan Turner, Corps, showed TMT the draft spill priority list for the 2022 spring spill season, attached to today’s agenda. The lists (one for March 23–April 2 and one for spring spill April 3–June 21) define project priority order for lack of load spill for management of TDG system-wide. Last year, Little Goose and Lower Monumental were moved down on the list to priority 6 and 7 on Level 1. This was different than years prior. Dan carried that change forward to the list presented at today’s meeting.

Emily Stranz, DS Consulting, asked TMT members if they had any questions, comments, or concerns. Changes to the list can be made at any time prior to or during the spill season.

Jonathan Ebel, ID, asked on behalf of FPAC why the example spill cap for Lower Monumental is 104 kcfs, which is lower than last year at 106 kcfs. Turner noted this was changed due to SYSTDG modeling, possibly due to having spillbay 3 out of service.

After some discussion, the group decided to leave 40% as the “Example Spill Level” for The Dalles in the document and add “125%” to the TDG% column.

Bar that, there were no additional changes to the list at that time.

Erick Van Dyke, OR, asked how strictly the spill priority list is followed. Tony Norris, BPA, commented that the BPA schedulers follow the list religiously and have for years. BPA is typically indifferent to where megawatts are spilled during forced spill.

Hesse asked about John Day and The Dalles operating in tandem and how that plays into this list. Turner commented that this document dictates how TDG is spread out over the system during a forced spill event due to lack of load conditions. It does not document how planned spill works and does not capture the nuances of that.

6. Operation of the Bonneville Corner Collector for Spring Creek NFH Emergency Release - Jonathan Ebel, ID

Ebel reported on an SOR calling for the Bonneville Dam Corner Collector (B2CC) to remain open until March 20 at 13:00. The Spring Creek Fish Hatchery had to release all 10.8 million fall Chinook due to an outbreak of bacterial gill disease. This was an emergency operation. The SOR states that “Since this release was prior to the normal spring spill period, most of these fish would normally be passing through powerhouse passage routes.”

Signatories of the SOR are USFWS, CRITFC/Confederated Tribes of the Umatilla Reservation, ID, WA, OR, and the Nez Perce Tribe.

Swank commented that this SOR is to give the fish the best chance to survive at this point.

Tom Lorz, Umatilla, commented that not all fish had the disease. Additionally, the B2CC would be likely be open now due to the kelt trigger, but there have been some confounding factors this year impacting kelt counts.

Emily Stranz, DS Consulting, polled TMT members on the SOR. The responses are as follows:

Agency	TMT Representative	Polling Response
Army Corps of Engineers	Doug Baus	Support
Bonneville Power Administration	Tony Norris	Support
Bureau of Reclamation	Joel Fenolio	Support
NOAA Fisheries	Trevor Conder	Support
US Fish & Wildlife Service	Dave Swank	Support
Washington	Charles Morrill	Support
Oregon	Erick Van Dyke	Support
Idaho	Jonathan Ebel	Support
Montana	Brian Marotz	Support
Nez Perce Tribe	Jay Hesse	Support
Umatilla Tribe	Tom Lorz	Support
Colville Tribe		
Warm Springs Tribe		
Kootenai Tribe		
Spokane Tribe		

Additional Comments:

Swank commented that this is a highly unusual emergency event and that USFWS appreciates the support of BPA and the Corps.

Next Steps:

Based on today’s polling, the Action Agencies will implement the SOR as described. The B2CC will remain open through Sunday March 20 at 1 pm. After that, the operation will revert to what is described in the Fish Passage Plan.

7. Initiation of the Juvenile Transportation Program - Baus and Ebel

Baus reported on the Juvenile Transportation Program, which is coordinated annually at TMT and documented in the Fish Operations Plan (FOP). Based on the FPAC recommendation, collection will begin at Lower Granite, Little Goose, and Lower Monumental on April 23, 2022. The first barge will depart the next day, on April 24. Ebel noted that FPAC made a consensus decision to recommend following the dates in the FOP.

Today’s Attendees:

Agency	TMT Representative
Army Corps of Engineers	Doug Baus (Chair), Lisa Wright, Julie Ammann
Bonneville Power Administration	Tony Norris, Scott Bettin
Bureau of Reclamation	Joel Fenolio
NOAA Fisheries	Claire McGrath
US Fish & Wildlife Service	Dave Swank
Washington	Charles Morrill
Oregon	Erick Van Dyke
Idaho	Jonathan Ebel
Montana	Brian Marotz
Nez Perce Tribe	Jay Hesse
Umatilla Tribe/CRITFC	Tom Lorz
Colville Tribe	
Warm Springs Tribe	
Kootenai Tribe	
Spokane Tribe	

Other Attendees (non-TMT members):

Corps – Scott St. John, Jon Roberts, Willow Walker, Leon Basdekas
 Yakama Nation Fisheries – Tom Iverson
 DS Consulting – Emily Stranz (Facilitator), Nancy Pionk
 BPA – Melissa Haskin (CONTR, FLUX Resources, Notetaker)
 Oregon DEQ – Marilyn Fonseca, David Gruen
 Columbia Basin Bulletin – Mike O’Bryant
 Chelan PUD – Kate von Reis Baron, Jay Finch
 FPC – Erin Cooper
 Clearing Up – K.C. Mehaffey
 PPC – Shane Scott
 Snohomish PUD – Bryan Zigler
 Grant PUD – Peter Graf