

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

April 9, 2014

Facilitator's Summary

Facilitator & Notes: Emily Plummer, 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.

Water Supply Forecast

Doug Baus, COE, shared the official NWRFC water supply forecasts for April, noting that the official forecast is posted on today's agenda on the following website <http://www.nwd-wc.usace.army.mil/tmt/>. Official NWRFC forecasts are as follows:

- The Dalles April – August 92 MAF (105% of average)
- Lower Granite April – July 22 MAF (112% of average)
- Dworshak April – July 3,111 KAF (128% of average)
- Grand Coulee April – August 60 MAF (106% of average)
- Libby April – August 6,868 KAF (117% of average)

Mary Mellema, BOR, reported on the water supply forecast for Hungry Horse: The April – August forecast is 2,517KAF, which is 130% of average.

Spring Creek Hatchery Release

Dave Wills, USFWS, reported that the first of two Spring Creek hatchery releases will be 6.4 million fish on April 11th. Dave noted that USFWS is requesting a similar operation to 2013. There was recognition that there are longstanding concerns and unresolved issues, including an outstanding Fish Passage Plan change form submitted through FPOM with respect to Bonneville operations. Doug Baus, COE, noted that the change form has been brought up again to the FPOM working group and that the working group is planning to meet in the near future. There was discussion around FPAC's recommended operation, as outlined in the 2012 SOR and a reiteration of the change form request, and constraints that the COE has in implementing the recommendations due to outstanding policy concerns.

- **Action/Planned Operation:** Doug confirmed that the current water supply and forecasts should allow for the current operation to be implemented. The operation will be a hard constraint from April 12th-17th, and soft constraint from April 17th-22nd, and will be implemented as follows:

1. PH2 units up to the 1% mid-range
2. PH1 units up the 1% upper limit
3. PH1 Units up to the Best Operating Point (BOP)
4. PH2 units up to 18.5 kcfs per unit.

Again, it was pointed out that the change form and unresolved issues are being addressed through the FPOM working group, and TMT is tasked with coordinating real-time operations within the current limitations.

Vernita Bar Update

Russell Langshaw, Grant County PUD, updated TMT on Vernita Bar. Russell reported that due to website issues, he did not have many details to share; however, the operation is going as planned and is on schedule for the emergence period to end in the 3rd week of June. Russell shared that there have not been any exceedences thus far in the operation. Russell will provide an update at the next TMT meeting.

Wanapum Dam Update

Russell Langshaw, Grant County PUD, updated TMT on the Wanapum Dam fracture. He noted that there has been great progress made on the left bank adult ladder installation at Wanapum, which is on schedule to be completed this weekend. The right bank ladder has been delayed a week and is expected to be in operation by April 21st. At Priest Rapids, the juvenile bypass is complete and operational. In regards to monitoring, Grant PUD is no longer planning to PIT tag fish at Bonneville; however, the off ladder trap has been modified to allow for acoustic tagging. They will also monitor juveniles via acoustic telemetry between Rock Island and Priest Rapids. Spring Chinook Adults will be double tagged with PIT and Acoustic tags at Priest Rapids to monitor upstream passage and behavior. There was inquiry as to whether Grant PUD officially pushed the draw down date out a month, to which Russell shared that due to uncertainties; Grant PUD is no longer specifying a date at which the reservoir will return to minimum operating elevation of 562ft. Previously it was estimated that forebay levels would be restored to minimum operating elevation by July 1st.

- **Next Steps:** Russell will continue to share updates on Wanapum Dam with TMT during regularly scheduled TMT meetings.

Dworshak Operations

Steve Hall, Walla Walla COE, reported on Dworshak operations. He noted that the April – August water supply forecast is 3.11 MAF and it was not feasible to draft down to the April 15th and 30th flood control targets because it would have caused downstream flooding and TDG exceedences beyond what is manageable for the downstream hatchery. As a result, the project submitted and was approved for a deviation request. The request called for operating to outflows of 20 kcfs until the refill curve is intersected, then reduce to full powerhouse (10 kcfs) through the end of April. The project is currently operating 20 kcfs outflows; TDG is ranging between 115-117% in the tailrace and the downstream hatchery is seeing TDG levels between 102-103%. The operation will hold 20 kcfs through the month and then resume normal operations, unless it becomes apparent that they will not intersect the refill curve or if the water supply forecast increases by an additional 400KAF. Steve shared that weather forecasts are not showing significant precipitation or weather events. Models are showing that the refill curve will likely be intersected towards the middle of April and the project will refill near the end of June. He noted that the last few years have reached refill earlier than expected due to early runoff, however, runoff this year is not expected to be as early. The project is expected to be within 5 to 10 feet of full by mid-June.

Little Goose Navigation Lock Update

An update on the Little Goose navigation lock was requested. Doug Baus, COE, reported that at this point there is no update to report, however, COE is hoping to have an update for Thursday's FPOM meeting.

- **Next Steps:** An update will be provided at the next TMT meeting on April 16th.

The next TMT meeting will be face to face at the 911 building, located at 911 NE 11th, on April 16th at 9:00am.

Agenda items include:

- Water Supply Forecast Update
- Vernita Bar Update
- Little Goose Navigation Lock Update
- Snake Flow Augmentation Update
- Libby Summertime Operations
- Spring Creek Hatchery Release
- Other?

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM – OFFICIAL MINUTES

April 9, 2014
Minutes: Pat Vivian

1. Introduction

Doug Baus, COE, chaired this TMT conference call facilitated by Emily Plummer, DS Consulting. Representatives of BPA, USFWS, Idaho, BOR, NOAA, COE, Montana, Washington, Nez Perce Tribe and others participated. This summary is an official record of the proceedings, not a verbatim transcript.

2. Update on Water Supply Forecasts

Doug Baus and Mary Mellema, BOR, presented the most recent 5-day QPF forecasts for individual basins:

- TDA (April-August) – 92 maf, 105% of average
- LGR (April-July) – 22 maf, 112% of average
- DWR (April-July) – 3111 kaf, 128% of average
- GCL (April-August) – 60 maf, 106% of average
- LIB (April-August) – 6868 kaf, 117% of average
- HGH (April-August) – 2517 kaf, 130% average

3. Vernita Bar Update

Russell Langshaw, Grant PUD, reported that the Hanford Reach protection program is operating smoothly and there have been no exceedances. Emergence is expected in the third week of June. Langshaw will give another update at the next TMT meeting.

4. Update on Wanapum Dam Repair

Langshaw reported that modifications of the left bank ladder at Wanapum Dam – where most passage occurs – is on schedule for completion by April 16. Modifications of the right bank ladder are a week behind schedule, with completion expected May 1. The new juvenile bypass at Priest Rapids Dam is operating and ready for downstream migrants.

Monitoring efforts will not include tagging at BON as reported at the last TMT meeting. The adult fish trap at Priest Rapids Dam will be modified and used to trap fish for tagging. Paul Wagner, NOAA, asked whether juvenile passage will be monitored above or below the dam. Juveniles will be monitored both above and below Rock Island and Wanapum, Langshaw replied.

Charles Morrill, Washington, asked about PIT tagging of adults at Priest Rapids Dam. The monitoring plan is in its early stages of development, Langshaw replied. Grant PUD is focusing first on monitoring fish behavior and ensuring that the ladders operate as planned. Both PIT tags and acoustic tags will be used for monitoring the impact of Wanapum operations on fish runs.

5. Spring Creek Hatchery Release

Spring Creek Hatchery is prepared to release 6.4 million fish on April 11, David Wills, USFWS, reported. Wills recommended an operation similar to last year:

1. Fully load BON powerhouse 2 units to the midrange, following STP projections.
2. Beginning April 10 (spring spill), operate powerhouse 1 to the 1% limit.
3. If flows increase and TDG levels below BON exceed 120%, operate all units available at powerhouse 1 to best operating point.
4. As flows increase, fully load powerhouse 2 units above the midpoint.

Baus clarified the following was the specific operation the AAs planned on implementing that had been coordinating with the USFWS since the last meeting on April 2.

- A) PH2 UNITS UP TO 1% MID-RANGE (13-15 KCFS), TARGETING 14 KCFS;
- B) THEN, PH1 UNITS UP TO 1% UPPER LIMIT;
- C) THEN, PH1 UNITS UP TO BEST OPERATING POINT (BOP);
- D) THEN, PH2 UNITS UP TO 18.5 KCFS PER UNIT.

Dave Statler, Nez Perce Tribe, asked for clarification of how the 2012 operation as implemented compares to the 2013 operation. There was no SOR in 2013; the BON operation was specified in the FOP, Wills noted. The COE was not able to fully implement SOR 2012-1 at the time due to policy concerns, Baus explained. Wills noted the request for BOP is not part of the FPP, which states that PH2 will operate at the midpoint up to the gas cap. Baus indicated the FPOM Task Group that participated in the development of the change form has been asked to review the change form and provide any updates based on new information. Until it is resolved, the COE will implement the request to the extent allowed. Based on the current STP inflow forecast of 250 kcfs, the AAs anticipate having the ability to accommodate the intent of the operation of limiting PH2 units to the midpoint.

This operation will be managed as a hard constraint from April 12-17 and as a soft constraint through April 22, with slight modifications may be made by Bonneville Dam Project Fisheries based on real time data. Baus summarized the AA's will be implementing the following operation:

- A) PH2 UNITS UP TO 1% MID-RANGE (13-15 KCFS), TARGETING 14 KCFS;
- B) THEN, PH1 UNITS UP TO 1% UPPER LIMIT;
- C) THEN, PH1 UNITS UP TO BEST OPERATING POINT (BOP);
- D) THEN, PH2 UNITS UP TO 18.5 KCFS PER UNIT.

Baus emphasized consistent with previous years the goal will be to implement a flow neutral operation (increases at PH1 via BOP will be offset by an equivalent flow reduction at PH2) at BON until policy implications associated with this operation have been resolved.

6. Dworshak Operations

Steve Hall, COE, reported. The April water supply forecast of 3.11 maf for April-July resulted in a flood control target of 1445' elevation on April 15 and on April 30. Current elevation is 1498'. In order to achieve the April 15 target, discharge of 40 kcfs out of Dworshak (or 30 kcfs to achieve 1445' by April 30) would have caused flooding downstream. Even the normal operation of 25 kcfs, based on flood control may have caused lethal TDG concentrations at the hatchery downstream of the dam.

The COE Walla Walla office made a deviation request which the Division approved on April 4. The deviation operation is to maintain 20 kcfs until the operations intersect the refill curve, at which point releases will drop to 10 kcfs (full powerhouse) for the rest of April. If it becomes apparent that the project won't intersect the refill curve, or the water supply forecast increases by more than 400 kaf, Dworshak will revert to normal operations of 25 kcfs releases. The project is on track to intersect the refill curve on April 18.

Morrill asked whether the latest 3-week forecast indicates shows more precipitation. The current outlook is for slightly warmer temperatures than normal, Hall replied, and normal precipitation.

Statler asked why the latest STP projection through May 31 identifies the DWR target elevation as 1564'. Hall said the COE's primary concern is refilling Dworshak as inflows recede below powerhouse capacity. Current modeling indicates it will be safe to refill DWR by the end of June. The project is expected to be 5' from full by mid June and to reach full on approximately June 22. The COE will conduct a snow flight in the first week of June to assess the remaining snow in the basin.

7. Little Goose Navigation Lock Repair

In response to a request for an update on the navigation lock repair, Baus had no new information as of today. The lock is still scheduled to return to service May 1. The COE may be able to provide new information to FPOM at its meeting tomorrow.

7. Next TMT Meeting

The next TMT meeting will be in person April 16. Updates on the water supply forecast, Vernita Bar operations, the Little Goose navigation lock repair, the Spring Creek Hatchery release, upper Snake flow augmentation, and an operations review are on the agenda.

<i>Name</i>	<i>Affiliation</i>
Tony Norris	BPA
Scott Bettin	BPA
David Wills	USFWS
Russ Kiefer	Idaho
Mary Mellema	BOR
Paul Wagner	NOAA
Doug Baus	COE
Jim Litchfield	Montana
Charles Morrill	Washington
Heather Dohan	Puget
Steve Lyman	PGE
Margaret Filardo	FPC
XX	Snohomish PUD
Dave Benner	FPC
Steve Hall	COE
Dave Statler	Nez Perce Tribe