COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

March 12, 2008 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

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.

Announcements

It was announced that Dan Feil has taken a post as fish biologist for the COE and will participate at TMT as appropriate.

Official Minutes/Facilitator Notes

The Official Meeting Minutes from the 2/27 meeting had not yet been posted. Cathy Hlebechuk, COE, offered to let TMT know when the notes are posted, and TMT will look to finalize them at their March 26 meeting.

Spring Creek Hatchery Operations

Cathy Hlebechuk, COE, provided a handout (also linked to the TMT agenda) describing the COE planned operation for Spring Creek Hatchery releases. The federal action agencies developed a proposed operation in conjunction with Warms Springs Tribe, Yakama Indian Nation, Nez Perce Tribe and Confederated Tribes of the Umatilla, and shared it with the States of Oregon, Idaho and Washington. 7.6 million fish were released on March 5 and 6. The specifications of the operation are listed in the document, and included spill of 36 kcfs from midnight on March 6 to 6am on March 10. Cathy noted that the second powerhouse turbine units were operated to the low end of 1% beyond the specified March 10 date in the planned operation. Initially the COE targeted 12.5 feet tailwater and later increased it to 13.0 feet to address TDG concerns.

Laura Hamilton, COE, provided graphics depicting three brief TDG exceedances that went just above 105% depth compensation, and shared that the tailwater fluctuated between 12.2 feet and 14.9 feet during that time. Dave Wills, USFWS, shared that TDG levels at chum redds monitored further downstream near Multnomah Falls showed no signs of gas levels above 105%, with depth compensation, thus preventing the potential of bubble trauma for fish at this location. The USFWS did not believe that this operation caused any TDG problems. He added that the Spring Creek fish did pass slightly slower than in the past, averaging an arrival time of about 36 hours instead of 24 hours. When the low end of 1% efficiency operation ended on 3/10, an increase in mortalities was observed at the smolt monitoring facility. When the operation to the low end of 1% efficiency was resumed, mortalities decreased. The COE said they would check in on 3/13 and if fish passage was nearly complete, would end the low end of 1% efficiency

requirement. BPA and the COE were commended for their efforts on this operation. Dave Wills added that no crowding was reported and that preliminary analysis showed that no mortalities resulted from crowding. Peak passage of 345,000 fish occurred on 3/9. A full review of the operation will be conducted in the next few months and the USFWS will share a report with TMT as available.

It was noted that TMT will likely need to discuss operating the turbine to the lower end of 1% efficiency for the next Spring Creek hatchery release in April. Finally, TMT members heard that the region has committed to developing and implementing re-programming as a long term solution to the production issue by 2010, no later than 2012. A clarification was made that there was no adult survival test this year because the USFWS agreed to release all the hatchery fish, rather than stagger the release, to coincide with spill.

Water Supply Forecasts

Cathy Hlebechuk, COE, provided information on March final forecasts, noting that the Libby forecast dropped slightly from 102.5% to 102%; Grand Coulee increased from 98.2% to 102%; Dworshak increased from 102% to 105%; Lower Granite increased from 103% to 106%; and The Dalles increased from 99% to 101%.

TMT also looked at the summary of current flood control elevation targets based on the March final forecast. It was noted that folks should focus on columns 9 and 11 on page 2 of the summary to see Grand Coulee and Dworshak shifted flood control targets.

Dworshak Shifted Flood Control Operations

Paul Wagner, NOAA, reported that FPAC discussed Dworshak shift to Grand Coulee operations and all salmon managers recommended a full shift to the extent possible, to provide more flow in the Snake River in April during fish migration, and provide greater assurance that flow in the Snake River would be augmented to the extent possible which will be important if natural runoff is delayed due to a cold spring. Additionally, resident fish, primarily kokanee and bull trout, would benefit from this proposed operation. Idaho added that they have been very supportive of the way this complex operation has been implemented in the past.

The action agencies responded that they would plan to implement a full shift. Graphs were linked to the agenda showing STP runs for Dworshak with a full shift vs. a no shift operation, based on current forecasts. Paul noted that these graphs show the shifted operation would provide water to support fish passage while the no shift operation would move the water away from the migration, and thanked the COE for providing the visual.

Action: Cathy Hlebechuk will email updated ESP runs to TMT and have them posted to the TMT web page next week to show bookend scenarios for this operation.

2008 Water Management Plan and Fall/Winter Update

Scott Boyd, COE, directed TMT to the web posting of the latest 3/11 draft of the WMP and offered that the draft had been updated with comments, included Fish Passage Plan

information and referenced the Fish Operations Plan. The Fall/Winter Update included March final water supply forecast information and the Spring Creek Hatchery operation for this year.

Action: TMT will be notified when the Fish Passage Plan has been posted, later this week. TMT will review and provide comments on the Fall/Winter update with the goal of 'finalizing' both the WMP and Fall/Winter Update at the next TMT meeting – and removing it from future agendas. Finally, spill patterns being discussed and coordinated in other forums will be shared at the next TMT meeting.

Operations Review

Reservoirs – Grand Coulee was at elevation 1255.75' and providing releases for chum. The April 10 target was 1244.2' and 1229' end of April. Hungry Horse was at elevation 3511.16', releasing 2.7-2.8 kcfs out. The BOR water supply forecast showed Hungry Horse at 102% of normal, and no flood control releases were projected to occur in March. Libby was at elevation 2397.9', targeting 2399.8' end of March. Dworshak was at 1520.1' and the shifted end of April elevation was 1519.1'. The project was shaping minimum flow to full load during the week and minimums during the weekends. Bonneville 7-day average flows were 133-182 kcfs.

Fish – Paul Wagner, NOAA, reported that 20 adult spring chinook had been observed passing Bonneville dam at this point.

Power system – Nothing to report at this time.

Water quality – Laura Hamilton, COE, reported that water quality gauges were being put into the system in time for the spill season, and that she would provide updates on water quality data at future TMT meetings.

Next TMT Meeting, March 26, 9am-noon

Agenda Items include:

- Fish Operations Plan – Spill patterns
- Final WMP and Fall/Winter Update
- Priest Rapids Update
- Scheduled Outage Updates
- Spring Spill/Transport Operations
- Planned Tests: RSWs, TSWs, etc.
- Start of MOP Operations
- Operations Review

Scott Bettin, BPA, asked TMT to consider briefly interrupting minimum flow during a scheduled Lower Monumental RSW test on March 18 – this would require a 2-hour period of reduced flow.

Action: Dan Feil, COE, said he would check on duration and conditions of the test, and whether the test would be impacted by Scott's request.

UPDATE: Following today's meeting, an email was sent to TMT regarding this issue: *The 6 unit CO2 outage scheduled for 3/18 will not overlap with the balloon tag test. Unless we [the COE]hear from you otherwise, spill for the 3/18 will be 11.5 kcfs (min flow). Training spill is needed for this study. This will occur approximately 1200 - 1400 hours.*

Columbia River Regional Forum
Technical Management Team Meeting
March 12, 2008

1. Introduction

Today's TMT meeting was chaired by Cathy Hlebechuk (COE) and facilitated by Robin Gumpert (D.S. Consulting), with representatives of COE, BOR, USFWS, NOAA, BPA, CRITFC, Idaho and others attending in person or by phone. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

2. Review Meeting Minutes

There were no comments on meeting minutes today. TMT will check in next week on the official minutes for the February 27 TMT meeting.

3. Spring Creek Hatchery Release

Bonneville Operations: The COE posted to TMT's website a paper describing the planned operations at Bonneville Dam for the Spring Creek Hatchery release of 7.6 million fall Chinook; Hlebechuk distributed hard copies. Federal agencies developed the proposed operation with representatives from the Warm Springs Tribe, the Yakama Indian Nation, the Nez Perce Tribe, and the Umatilla Tribe. Starting midnight March 6, the COE provided 36 kcfs spill round the clock until March 10 using a modified spill pattern. In addition, 2 kcfs spill was provided at the end spill bays during daylight hours for adult fish attraction. The COE does not believe spill aids returning adults and provided spill this year only to address concerns about crowding at the bypass. The second powerhouse was operated as first priority, with the turbine units toward the low end of the 1% best efficiency range. The operation was planned in conjunction with tribal representatives and includes a mutual commitment to implement Spring Creek Hatchery reprogramming as early as 2010, but no later than 2012. The COE specified a minimum tailwater elevation below Bonneville of 12.5 feet, which was subsequently altered to 13 feet for protection of chum redds.

Next year and beyond, spill will not be provided to accompany the Spring Creek Hatchery release but the federal agencies will work with the sovereign parties to stagger fish releases to minimize crowding.

Depth Compensated TDG Levels at Warrendale: Laura Hamilton (COE) presented a graph depicting discharges and spill levels at Warrendale gage. The total project discharge averaged 147.8 kcfs, with spill averaging 36 kcfs. The actual compensation depth averaged 102.9%TDG. During three hours, the actual

compensation depth exceeded the 105% TDG criteria but the exceedances were small (105.2-105.4%). The tailwater elevation below Bonneville during the spill period averaged 13.4 feet.

Spring Creek Release Monitoring: Spring Creek Release Monitoring: USFWS monitored TDG and water depth over the chum redds at the Ives Island complex and Multnomah Falls. The TDG readings at the Multnomah Falls chum redd sites were a bit lower than the Warrendale gage readings, Dave Wills reported. BPA and the COE did a very good job of maintaining depth compensation for this operation, Wills said. Based on the monitoring results the USFWS does not believe that the spill operation caused any TDG or GBT problems. The fish took 36 hours to travel from the hatchery to the dam; normally it's around 24 hours. They passed without incident until the turbines went off the low end of the 1% efficiency range on March 10 and mortalities occurred. When the turbines were returned to the low end of 1% efficiency, the mortalities immediately decreased. The plan is to continue operating the turbines at the low end of 1% efficiency until passage numbers have dropped off, probably by the morning of March 13.

Tony Norris (BPA) asked whether overcrowding occurred at the juvenile bypass facility; Wills said none was reported. The highest density was 345,000 fish that passed on March 9. Further analysis will occur over the next few months. Dan Feil agreed that no problems with crowding and mortality were observed on high passage days. More discussion is needed on whether the turbines should be operated at the low end of 1% efficiency for the April release. The coded wire tag study did not go forward because USFWS decided, in light of the commitment to reprogramming, to take advantage of spill for the entire release.

4. Water Supply Forecast

All of the March water supply final forecasts for the April-August period were higher than the February forecasts except Libby, Hlebechuk said. Libby is now at 102% of normal, down from 102.5% at the end of February. Grand Coulee is 102% of normal; Dworshak is 105%, Lower Granite 106%, and The Dalles 101% of normal.

The end of March flood control elevation for Libby is 2399.8 feet, a flat elevation through April 30 unless VARQ flows start. On March 31, the full shifted elevation target will move from Dworshak to Grand Coulee: The shifted flood control elevation for March 31 at Grand Coulee is 1256.7 feet; the elevation objective for April 10 is 1,244.2 feet; and the flood control elevation for the end of April is 1,229.1 feet. The shifted flood control elevation for March 31 at Dworshak is 1519.1 feet.

5. Dworshak Flood Control Shift

FPAC discussed whether to recommend a full or partial flood control shift from Dworshak and recommends the full shift if possible, Paul Wagner (NOAA) said. He and Russ Kiefer (Idaho) agreed that keeping Dworshak at a higher elevation benefits both anadromous fish and resident kokanee and bull trout. The COE should be able to shift the full amount from Dworshak to Grand Coulee, Hlebechuk said. The full shift operation will mean releasing 14 kcfs from Dworshak throughout April, which could raise concerns about exceeding 110% TDG standards. Last year, the Salmon Managers preferred higher flows in the second half of April; Kiefer confirmed that's true again this year. Hlebechuk showed graphs of the full shift versus no shift, with Dworshak reaching 1,500 feet elevation at the end of March. The graphics clarify that no shift would shape water out of the migration period, Wagner observed.

6. Revised Draft 2008 WMP and Fall/Winter Update

Language in the WMP has been updated to correspond with the Fish Passage Plan, Scott Boyd (COE) said. It is now being reviewed by COE's legal counsel. TMT will work on finalizing both the WMP and the fall/winter update at its next meeting.

There have been no changes to the Fish Operations Plan since the last meeting. Project-specific spill patterns are being developed for John Day and Little Goose by FFDRWG and SRWG, Rudd Turner (COE) said. These will be shared with TMT at its next meeting.

The Fish Passage Plan will be posted on the web today.

7. Operations Review

a. Reservoirs. Grand Coulee is at elevation 1,255.75 feet, releasing flows for chum protection below Bonneville and to meet the April 10 target elevation of 1,244.2 feet. The end of April flood control elevation is 1,229.1 feet.

Hungry Horse is at elevation 3,511.16 feet, with discharges of 2.7-2.8 kcfs to support the Columbia Falls minimum flow. The water supply forecast for March is 102% of normal, with no flood control releases anticipated until April at the earliest.

Libby is at elevation 2,397.9 feet, at minimum flows and trying to fill. The end of March flood control elevation is 2,399.8 feet.

Dworshak is at elevation 1,520.1 feet. The end of March shifted flood control elevation is 1,519.1 feet. The project is shaping during the week between

minimum flows of 1.3 kcfs and a full load of 8.2 kcfs, with minimum flows on weekends for fish passage.

The 7 day average for discharges at Bonneville ranged from 133-182 kcfs.

There was discussion of whether there will be a spill test of the RSW at John Day before spill season starts; Feil will report back on that. There was also discussion of the balloon tag test planned for March 18 at Lower Monumental. Six units will be out of service, with spill over the RSW and in one additional bay because the minimum flow is 11.5 kcfs and the RSW will only spill 9.5 kcfs. Scott Bettin asked whether 9.5 kcfs spill would be sufficient for 2 hours. Feil will find out whether that would impact the test. He and Wagner agreed to work together outside TMT to answer this question.

b. Fish. The migration is not underway yet, although a few fish have passed.

c. Power System. There was nothing to report at this meeting.

d. Water Quality. The COE is in the process of installing gages and will let TMT know when they are operating.

7. Next Meeting

The next regular TMT meeting will be on March 26. The agenda will include FOP spill patterns, finalizing the WMP and the fall/winter update, a B2 corner collector outage as well as any other planned outages, spring spill and transport operations, the start of MOP operations, review of the February 27 official minutes, and possibly a chum emergence report. This summary prepared by consultant and writer Pat Vivian.

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