

COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

May 7, 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.

Review of Meeting Minutes

The group approved the April 16th, 23rd, and 30th official meeting minutes and Facilitator's Summary pending the following clarification for the April 23rd minutes and summary, noted by Erick Van Dyke, OR:

- Regarding the spring juvenile transportation operation: OR expressed preference for a May 1st staggered start date (Lower Granite on May 1st, followed by staggered start dates at Little Goose and Lower Monumental). The previous draft of the 4/23 Facilitator Summary had stated that OR did "not object", Erick clarified that at this point in time, OR does not agree with the operation, however, is not going to elevate the issue. Erick also noted that although in the Facilitator's Summary, the Official Minutes did not state that USFWS also supported a May 1st staggered start date. Dave Wills, USFWS, agreed to review the Minutes and respond to Doug Baus with any necessary changes.

Water Supply Forecast

Doug Baus, USACE, shared the current NW River Forecast Center (NWRFC) water supply forecasts. It was noted that the official forecast will be released by the end of the work day today. Forecasts are posted on today's agenda (<http://www.nwd-wc.usace.army.mil/tmt/>). Current NWRFC forecasts are as follows:

- The Dalles April – August: 96 MAF (110% of average)
- Libby April – August: 6,999 KAF (119% of average)
- Dworshak April – July: 3,183 KAF (131% of average)
- Lower Granite April – July: 22 MAF (110% of average)

Mary Mellema, BOR, reported on the final May water supply forecasts at Hungry Horse:

- May – July: 2,234 KAF (142% of average)
- Jan – July: 2,510 KAF (120% of average)
- April – August: 2,463 KAF (127% of average)
- May – September: 2,404 (142% of average)

Vernita Bar Update

A Vernita Bar Update will be provided at the May 14th TMT meeting.

Libby Operations

1. **SOR #MT 2014-1:** Jim Litchfield, MT, recapped the intention of the SOR #MT 2014-1, noting that previous TMT discussions on the SOR took place at the April 16th and 30th meetings. Jim expressed that the intent of the SOR is to provide a framework for the summer to fall transition and focuses on managing flows to achieve a steady and slowly declining outflow. This would prioritize river flows over reservoir elevations, however, would still target a 2,449ft pool elevation by the end of September. Joel Fenolio, USACE, walked the group through a scenario

showing both observed and forecasted inflows, outflows and elevations based on the April – August inflow volume, noting that forecasts show a proposed target elevation between 2,052-2,054ft at the end of August. According to the forecast, the project would likely have to hold 10kcf outflow through September in order to hit 2,449ft. Joel pointed out that the forecasts are assuming normal precipitation and that depending on actual inflows and hydrology the operation may have to adjust. Both Joel and Jim pointed out that the SOR outlines a framework and specific operations may need to be adjusted in-season to meet real-time conditions and needs. Paul Wagner, NOAA, clarified that the intent of hitting the target 2,449ft elevation still stands, however, the SOR prioritizes maintaining a steadily decreasing flow over the target elevation. This was verified: the intent of the framework is to hit the 2,449ft target *while* ensuring a steady and slowly declining flow.

TMT Members present were polled regarding the framework of the SOR: BPA, BOR, USACE, NOAA, USFWS, ID, WA, Colville, MT all expressed support for the SOR; CRITFC/Umatilla expressed that they will not object at this time; OR did not object to the SOR, however, noted that there is not a clear biological basis for the operation.

[Facilitator’s Note: Nez Perce were not present at today’s meeting. The Corps followed up with Dave Statler, Nez Perce, after the meeting and Dave indicated that the Nez Perce would not object to the SOR.]

- **Action:** Doug Baus, USACE, recognized the support from present TMT members, however, noted that not all TMT members are present for the poll. USACE will reach out to absent TMT members and report back to TMT regarding the operation at the May 14th TMT meeting.
- 2. **SOR FWS#1:** Jason Flory, USFWS, introduced a SOR focused on augmentation water for sturgeon and bull trout. The proposed SOR operation is similar to the two-peak sturgeon pulse operation that was implemented in 2013. Jason noted that the minimum recommended release volume is 1.17MAF, however, specifics of the operation cannot be determined this early in the season and thus will likely be adjusted based on real-time conditions. He explained that the operation is intended to coax sturgeon migration and staging upstream of Bonner’s Ferry. Jason noted that although there is not conclusive evidence from last year’s operation, behavior changes were observed and another year of the operation will provide more information.

TMT members present were polled on SOR FWS#1: BPA, BOR, USACE, NOAA, USFWS, ID, WA, OR, Colville, Umatilla, MT all expressed support for the SOR.

[Facilitator’s Note: Nez Perce were not present at today’s meeting. The Corps followed up with Dave Statler, Nez Perce, after the meeting and Dave indicated that the Nez Perce would not object to the SOR.]

- **Action:** Doug Baus, USACE, will take TMT recommendations to Corps and will follow-up regarding proposed operations at the May 14th TMT meeting.

John Day Spill Operations

Scott Bettin, BPA, proposed a change to the spill implementation at the John Day Dam. The proposed operation would provide the same amount of spill that is currently provided by spilling 30% for two days and 40% for the other two, however, is intended to allow for easier scheduling of energy, while also producing it at a time that load is more likely to be available. This could result in lower TDG levels and

may result in additional benefits for fish if more fish go to the spillway as a result of the change in timing of spill. The operation would be implemented in a 12 hour block, changing at 1900 hours. Lisa Wright, USACE, noted that if consensus is achieved, the operation would be implemented as soon as possible and held until June 10th, concluding before the initiation of performance standard testing on June 11th. Tom Lorz, CRITFC, requested more information regarding the 2011 performance standard testing day and night time operations, noting that it is difficult to assess the potential impact of day and nighttime spill percentages without more information. Paul Wagner, NOAA, noted that FPAC briefly discussed the proposed operation and deferred to Gary Fredericks, NOAA, who is reviewing data for 2011 and will get back to FPAC with more information.

- **Action:** Scott Bettin will provide TMT with more information regarding the 2011 John Day spill operation and TMT will continue the discussion on the John Day spill operation at the May 14th meeting.

Spring Creek Hatchery Release Update

Dave Wills, USFWS, reported that the second and last Spring Creek juvenile release occurred on May 6th; there was not yet an update from the smolt monitoring facility as to the progress of the fish. Dave noted that flows are higher than desired, however, USFWS will continue working with USACE and BPA to coordinate the operation. Doug Baus, USACE, noted that the Bonneville task group is meeting today and will review the updated change form. An update on the status of the change form, as well as any decisions made by the task group that may impact current operations will be provided to TMT at the May 14th meeting.

Dworshak Operation

Steve Hall, USACE, Walla Walla, reported that the Dworshak flow operation planned at the April 30th TMT meeting was implemented: the project maintained full powerhouse discharge through May 2nd, followed by a decrease in outflow to 5.0kcfs on May 3rd and then on May 4th a decrease to 2.4kcfs outflow. An illustration of the operation is provided on today's agenda on the TMT website. Paul Wagner, NOAA, inquired as to if the STP is accurate. Steve responded that the STP may be forecasting more precipitation than may be observed; however, at this point the project is planning to hold 2.4kcfs outflows until mid to late June, depending on precipitation, and then will reassess the refill plan moving forward. He noted that the NWRFC and Climate Prediction Center forecasts are not completely aligned at this point, and potential El Niño impacts may require adjustments. Russ Kiefer, ID, expressed appreciation to the Action Agencies for working with the Salmon Managers to extend the higher flows, recognizing that it was outside of the project's comfort zone for refill operations.

Lower Monumental Spill Pattern

1. **SOR 2014- 01:** Tom Lorz, CRITFC, presented an SOR to reshape the Lower Monumental spill pattern from bulk to uniform spill. A link to the SOR is provided on today's agenda on the TMT website. The SOR was drafted based on FPAC conversations associated with the desire change the current pattern at LMN from bulk to uniform. The SOR requested shifting to uniform spill to allow for a slight increase in spill while maintaining TDG standards and increasing spillway passage. It was requested that the uniform spill pattern be maintained at all times, however, this component of the SOR was unclear to the Action Agencies prior to the conversation today. When the Action Agencies reviewed the SOR prior to the TMT meeting, they interpreted the request for uniform spill as only being during lack of load. Noting that twice the request for full time uniform spill has been elevated to and denied by RIOG, Doug Baus, USACE, stated that Corps did not feel comfortable implementing that request. They could however, implement the

uniform pattern during lack of load. The Salmon Managers that signed on to the SOR (USFWS, CRITFC, Nez Perce, ID, WA, OR), expressed disappointment that uniform spill would only be used during lack of load, however, none indicated that they would elevate the issue at this point in time. Erick Van Dyke, OR, stated that Oregon is concerned that operations are not being designed with a biological basis and instead focus too narrowly on operational benefits. He shared that the proposed SOR addressed both biological and operational needs and that the Action Agencies' inability to implement the operation was disappointing. The facilitator pointed out that based off of the discussion, it was clear that there were misunderstandings on the proposed operation, and also noted that both the Salmon Managers who signed the SOR and the Action Agencies had stated that their intention was to implement an operation that met both generation and fish needs. It was noted by FPAC members that the Action Agencies were implementing the operation as it is described in the 2014 Spring Fish Operation Plan. Doug Baus, USACE, thanked the group for the conversation and stated that the SOR would not be implemented; however, the project will shift to uniform spill during lack of load. When the Corps indicated that they would not be implementing the SOR, the signors of the SOR indicated at this point they would not elevate the issue to the RIOG for the third time.

- **Action:** Doug stated the following operation will be implemented: As of the afternoon of May 7th, Lower Monumental will spill in a uniform pattern during lack of load conditions. This operation will continue until June 10th, 2014. This operation is consistent with the 2014 Spring FOP.

- 2. **Spill Priority List:** Doug Baus, USACE, presented a proposed revision of the spill priority list (SPL) which was adjusted to address lack of demand concerns. The revised Level 1 SPL moves Lower Monumental (both uniform and bulk spill patterns) to the top, followed by Ice Harbor, Lower Granite, Little Goose, John Day, The Dalles, Bonneville, McNary, Chief Joseph, Grand Coulee and then Dworshak. Paul Wagner, NOAA, shared that FPAC discussed the SPL and did not reach consensus on the position of Lower Granite. Umatilla, USFWS and OR expressed that their preference was to move Lower Granite up to follow Lower Monumental and then Ice Harbor and Little Goose. Paul Wagner stated that due to the timing of transportation and importance of Lower Granite in gathering fish for transport, NOAA does not agree with moving Lower Granite any higher on the SPL. Erick Van Dyke, OR, reiterated that Oregon does not agree with NOAA's transportation requirement of 50% steelhead and does not think the transport requirement is reason enough to put ICH above LWG on the SPL. Doug Baus, recognized that there are multiple perspectives and that due to lack of consensus, USACE would defer to NOAA's recommendation to keep Lower Granite where it is in order to support the 2014 BiOp requirement of about 50% transport of steelhead.

- **Action:** The Level 1 SPL was revised as follows: LMN (Bulk), LMN (Uniform), IHR, LWG, LGS, JDA, TDA, BON, MCN, CHJ, GCL, DWR. TMT will discuss the position of Little Goose on the SPL at the TMT meeting on May 14th.

Operations Review

Reservoirs: Lisa Wright, USACE, reported on Corps projects:

- Libby was at elevation 2,386.6 feet, with 22.4kcfs inflow and 20kcfs outflow.
- Albeni Falls was at elevation 2056.2 feet, with 72.5kcfs inflow and 56.2kcfs outflow.
- Dworshak was at elevation 1,500.8 feet with 19kcfs inflow and 2.4kcfs outflow.
- Lower Granite average outflow was 102.8kcfs.

- McNary average outflow was 318.4kcfs.
- Bonneville average outflow was 335.6kcfs.

Mary Mellema, BOR, reported on Reclamation projects:

- Hungry Horse elevation was 3,497.6 with 8.4kcfs outflow.
- Grand Coulee elevation was 1,232.9 with 8.2kcfs spill.

There was inquiry as to if the Gifford/Inchelium Ferry is back in service, to which Sheri Sears, Colville, reported that the ferry is not in service, however, will be after a Coast Guard's hull inspection.

Fish: Paul Wagner, NOAA, reported on fish. He noted that juvenile chinook counts are high and may be peaking; 6,000 have been counted at the Lewiston trap, 456,000 have passed Lower Granite, 290,000 passed Little Goose, and 141,000 passed Lower Monumental. Lower river sub-yearling counts show 110,000 passed McNary, 90,000 at John Day and 61,000 at Bonneville. Paul noted that he thinks that steelhead may be approximately half way through their run, with average counts in the low to mid 100,000's; 120,000 passed Little Goose on May 6th. The juvenile sockeye season is early, however, some potential sockeye have been counted. Around 15,000 juvenile sockeye have passed Lower Granite, although none of the fish had PIT tags and so it is unclear if the fish are actual sockeye or kokanee. Similarly, untagged "sockeye" have passed Bonneville and McNary. Adult spring chinook counts are high, with 125,000 counted thus far (170% of the 10-year average). At this point, the chinook counts are on track to meet the expected 240,000 forecasted. Jacks are prevalent and are following the 10-year trend.

Water Quality: Scott English, USACE, reported that all of the fixed monitoring stations are currently in operation.

Power System: Nothing to report.

The next TMT meeting will be face to face on May 14th at 9:00am at the Oregon State building.

Agenda items include:

- Water Supply Forecast Update
- Vernita Bar Update
- Wanapum Update
- Libby Operations – SOR FWS#1 and SOR#MT 2014-1
- Spring Creek Hatchery Release Update
- John Day Spill Operation
- Position of Little Goose on SPL

Columbia River Regional Forum
TECHNICAL MANAGEMENT TEAM – OFFICIAL MINUTES

May 7, 2014
Minutes: Pat Vivian

1. Introduction

Doug Baus, COE, chaired this TMT meeting facilitated by Emily Plummer, DS Consulting. Representatives of the COE, Oregon, USFWS, NOAA, BPA, BOR, Washington, Montana, Idaho, CRITFC/Umatilla, Colville and Yakama tribes, and others participated. This summary is an official record of the proceedings, not a verbatim transcript.

2. Meeting Minutes – April 16, 23 and 30

Erick Van Dyke, Oregon, commented on the April 23 facilitator's notes regarding TMT discussion of juvenile transportation at Snake projects. He asked that "Oregon did not object" be changed to "Oregon chose not to elevate" the discussion of staggered start dates. He also noted that several of the salmon managers including USFWS shared Oregon's preference for staggered start dates over a May 1 date for all projects. With those edits, the notes and official minutes for these meetings will be considered final.

3. Update on Water Supply Forecasts

Baus and Mary Mellema, BOR, presented the most recent 5-day QPF forecasts for individual projects. Official May forecasts will be posted to the TMT website by close of business today.

- TDA (April-August) – 96 maf, 110% of average.
- LIB (April-August) – 6996 kaf, 119% of average.
- DWR (April-July) – 3183 kaf, 131% of average.
- HGH (May final for May-July) – 2234 kaf, 142% of average.
- HGH (January-July) – 2510 kaf, 120% of average; (April-August) – 2463 kaf, 127% of average; (May-September) – 2404 kaf, 142% of average.
- LWG (April-July) – 22 maf, 110% of average.

4. Libby SOR #MT 2014-1

The last few sentences of the SOR succinctly state Montana's request, Jim Litchfield, Montana, said. Flows that are stable or decline as gradually as possible are the main goal of this SOR. While it also targets attainment of the end of September elevation quoted in the BiOp, that consideration should be secondary to providing flows that create the best possible river conditions during July, August and September.

Joel Fenolio, COE, presented modeling based on current projections (attachment 4c linked to today's agenda) of how Montana's request would shape Libby operations. The scenario targets an end of August elevation of 2052-2054' leading to September releases of approximately 10 kcfs. When the sturgeon pulse ends in mid-July, releases would drop from 17 kcfs to 13-14 kcfs through end August. There's a possibility under this scenario, subject to in-season management choices, that Libby won't draft to 2449' by end September. Litchfield assured him that's exactly what the SOR requests.

The SOR prioritizes stable and/or declining flow over and end of September elevation of 2449'. Should 2449' not be attained by end of September the goal of the operation would be to draft to 2449' as soon as practicable during the first part of October. Specific details of this operation would be coordinated with the TMT. NOAA is comfortable with giving flows stable flows priority over a specific end of September elevation. There was agreement among BPA, Montana and NOAA that the disposition of the SOR should characterize the operation as targeting elevation 2449' by the end of September without changing flows dramatically to get there. There was discussion of when, if ever, elevation 2449' would be attained this year. Barring an extreme event it will happen eventually, Wagner said, and Scott Bettin, BPA, confirmed that flood control operations will bring the reservoir down to 2449'.

TMT members gave their views of the SOR:

- **BPA** – Supports the SOR.
- **NOAA** – Accepts the SOR as a framework for decision-making.
- **Oregon** – Doesn't object to the SOR but sees it as having no biological basis.
- **Washington** – Accepts and supports the SOR.
- **Colville Tribe** – Supports the framework and has no objection to the SOR, although it doesn't address a biological concern.
- **Umatilla Tribe** – No objection.
- **Idaho** – Supports the SOR.
- **Montana** – Supports the SOR.

Baus said the COE also supports the SOR. Because not all TMT members were present for the poll today, the COE will consult with those who were absent before implementing the SOR. Baus will report back to TMT on Libby operations at the next TMT meeting May 14.

5. Libby SOR FWS#1

Jason Flory, USFWS, presented a second SOR for Libby operations, this one addressing the sturgeon pulse. This is a Tier 4 year, making the sturgeon volume 1.17 maf.

The SOR is essentially the same as last year in that it requests two peaks in the sturgeon pulse. The first peak, to be based on monitoring local conditions, will attempt for 5-7 days to match peak flows from snowmelt with additional flows from Libby to the

maximum stage level at Bonners Ferry. The goal is to trigger migration and staging. After 5-7 days when inflows have peaked, releases will drop to 18 kcfs or VARQ flows, whichever is greater.

The second peak is intended to last for 7-9 days and target a spawning temperature until the sturgeon volume is exhausted. At that point Libby will gradually ramp down to typical summer flows. While last year's double-peak operation did not result in a notable increase in spawning upstream of Bonners Ferry, the proportion of tagged sturgeon upstream of Bonners Ferry did rise, so it's worth a second try.

TMT members were polled on their views of the SOR. All who were present supported implementation, including **Montana, Oregon, USFWS, NOAA, BPA, Washington, Idaho, BOR,** and the **Colville and Umatilla tribes.**

6. Vernita Bar Update

Russell Langshaw, Grant PUD, was not available to provide an update today. TMT will revisit this operation at its next meeting.

7. John Day Spill Operation

At the request of BPA schedulers, Scott Bettin proposed to TMT today that John Day Dam spill 30% during daytime and 40% at night in 12-hour blocks from 7 pm to 7 am until June 11, when performance testing begins there. The purpose of the BPA request is to help manage lack of load during the transition from heating to cooling.

There was discussion of whether more fish pass during the day or at night, when spill would be higher under this proposal. Tom Lorz, CRITFC/Umatilla, said recent research indicates more fish travel during daylight hours than at night, although few studies break out day and night percentages clearly enough to evaluate the proposal. Data comparing the effects of 30% vs 40% daytime spill, and 30% vs 40% nighttime spill, are needed to evaluate the biological effects of this proposal. Wagner said FPAC discussed this proposal briefly yesterday, and concluded that more information from the 2011 performance test is indeed necessary for decision making. Bettin will present more detailed information to TMT at its next meeting May 14.

8. Spring Creek Hatchery Release

The second release of smolts this year was in the river by 10 am yesterday, David Wills, USFWS, reported. He had not yet heard from the smolt monitoring facility on how the release was faring at current flows, which seemed a bit high.

Baus said an FPOM work group will meet this afternoon with the goal of resolving issues around the change form that will modify language in the FPP addressing Bonneville powerhouse operations. He will give an update on the change form process at the next TMT meeting May 14.

9. Dworshak Operations

Steve Hall, COE, showed TMT modeling of the effects of Dworshak flow augmentation on flows at Lower Granite, based on current STP inflow traces. On May 1-2, Dworshak sustained full powerhouse releases (approximately 10.5 kcfs). On May 3 the Corps reduced outflow to 4.9 kcfs and on May 4 outflows were reduced to 2.3 kcfs. The effect of this flow augmentation on Lower Granite was three additional days of approximately 8 kcfs and one additional day of 2.4 kcfs before the project transitioned to refill mode.

Wagner asked if any additional augmentation volume could be expected, and Hall replied the COE plans to keep the project at 2.4 kcfs releases until early or mid-June. The COE typically completes refilling Dworshak when inflows drop below 10 kcfs, which is approximately powerhouse capacity. A snow flight in the first two weeks of June will verify the remaining snow-covered area for flood control purposes, allowing the COE to target a refill date more precisely.

Hall cautioned that the Climate Prediction Center is still forecasting el Nino conditions in the near future, which could mean a drier, hotter summer than the STP traces predict. However, additional precipitation could lead to a scenario much like that depicted in attachment 4c. In that event, the COE would probably ramp up Dworshak discharges in mid-June. Anticipated Dworshak augmentation volume is 3,183 kaf, which doesn't take into account the possibility that el Nino conditions might develop.

10. Lower Monumental Spill Pattern

This topic was added to today's agenda at the request of Tom Lorz, who presented SOR 2014-01 linked to today's agenda. The SOR asks the action agencies to switch from a bulk to a uniform spill pattern at Lower Monumental immediately in response to lack-of-load concerns during the transition from winter to summer demand for generation. The SOR was signed by USFWS, ODFW, WDFW, Idaho, Nez Perce Tribe and CRITFC.

Baus said the COE plans to implement a change at Lower Monumental this afternoon consistent with the 2014 FOP and last year's operation, when Monumental was moved up on the Level 1 spill priority list during lack of load conditions. A closely associated topic is spill at Little Goose, which shouldn't exceed 30% due to adult passage concerns. Baus clarified the COE will use the uniform pattern only during lack of load conditions, reverting to bulk spill during non-lack of load conditions. This plan is reflected in the proposed spill priority list linked to today's agenda.

Lorz requested that the uniform-spill request at Lower Monumental and spill priorities during lack of load be discussed as two separate issues. Although the two are linked, the proposed spill priority list reflects what's already in the 2014 FOP, while the request for uniform spill is outside FOP specifications.

Uniform spill pattern at Lower Monumental: The request for ongoing uniform spill – the real goal of the SOR – was intended to address both fish and generation needs. Lorz cautioned that in ramping down spill at Lower Monumental to avoid gas at Ice Harbor, the action agencies are moving away from levels of spill that allowed Lower Monumental to meet its survival requirements during performance standards testing.

Bettin recalled the request for uniform spill at Lower Monumental has been elevated twice to RIOG without resolution. Baus couldn't understand why TMT would expect implementation of this SOR (going to the uniform pattern) as described in the SOR as this issue had been elevated to RIOG on two previous occasions and implementing this request was not supported by the RIOG. He will confer with the salmon managers on how to characterize disposition of the SOR, including clarifying that the intent was not to address spill priorities per se, but to request a uniform spill pattern during all hours.

TMT members gave their views on the SOR:

- **NOAA** – Supports the action agency proposal to move Lower Monumental up on the spill priority list. Didn't sign the SOR because of concerns about expectations during non-lack of load hours.
- **CRITFC** – Advocates uniform spill during all hours at Lower Monumental. Is unhappy the SOR was not fully implemented, but doesn't intend to elevate the issue to RIOG.
- **Oregon** – Disappointed the SOR was not fully implemented, but doesn't intend to elevate it to RIOG. By limiting the use of uniform spill at Lower Monumental to lack of load conditions, the action agencies are implementing only the portions of the SOR that benefit operations at the expense of the portions of the SOR that focus on fish needs.
- **USFWS** – A collaborative opportunity is being missed by not implementing the SOR. Switching to uniform spill now would help both operations and fish.
- **Washington** – The SOR gives the action agencies an opportunity to operate Lower Monumental in a way that benefits both fish and power.
- **Idaho** – Switching to consistent uniform spill would provide better survival rates for fish passing Lower Monumental and would also be likely to boost adult returns, in addition to helping with lack of load issues.

TMT concluded that the purpose of this poll was not to ratify the proposed operation, which already reflects FOP specifications, but to determine whether any members were willing to elevate the Lower Monumental spill issue to RIOG. Based on previous experience with elevating this issue, no one did today. TMT also concluded that the disposition of the SOR should clearly say it was not implemented.

Proposed spill priority list: TMT then focused on the list linked to today's agenda, which shows the first five candidates for Level 1 spill (spill to state water quality standards of 115/120% TDG). Lower Monumental (bulk spill) is in position #1, followed

by Lower Monumental (uniform spill), Ice Harbor, Lower Granite, and Little Goose in that order. Bettin noted that last year Lower Granite preceded Ice Harbor, which has limited use for fish passage because it spills to the spill cap only every other two days.

Baus said the COE plans to implement the proposed list beginning today through July 10. He asked the salmon managers for their views. Their responses focused on whether Lower Granite should be moved up to position #3 or Ice Harbor should remain as #3 per the proposed list.

CRITFC/Umatilla advocated full implementation of the SOR, with Lower Monumental bulk and uniform spill followed by Lower Granite in position #3, then Ice Harbor as #4. The rationale for giving Lower Granite higher spill priority is flows are now 20 kcfs or approximately 20% of flow now. With large numbers of fish passing Lower Granite, flows should be higher than 20%. **USFWS** agreed that Lower Granite should be in position #3. **Oregon** also advocated moving Lower Granite up on the list regardless of transport concerns. Oregon's position is that a 50% transport goal is not a spread-the-risk strategy, and transport will continue at Lower Granite regardless of whether it spills before or after Ice Harbor. Most importantly, spill benefits fish.

NOAA preferred to keep the spill order as proposed, with Ice Harbor as #3 and Lower Granite as #4. The benefits of transport are highest at Granite this time of year. Keeping it in position #4 helps to meet the objective of transporting 50% steelhead per the BiOp, while moving it up to #3 could pose an issue for transport numbers. **Idaho** supported keeping Ice Harbor at position #3 and Lower Granite at #4.

Washington was likewise uncomfortable moving Granite up on the list, while recognizing this is a difficult issue in terms of speculation. While more spill at Lower Granite would provide biological benefits in river conditions, it would result in transporting fewer fish. Lack of uniform spill at Lower Monumental puts more fish into the bypass, which the salmon managers regard as problematic.

It was noted that this is peak passage season – 185,000 fish passed Lower Granite yesterday, a level of abundance not seen since 2004-5. Yesterday's collection proportions were approximately 75% chinook and 25% steelhead.

Recognizing the continued lack of consensus regarding the juvenile transport conversation, Baus indicated the COE will defer to NOAA's preference and implement the spill priority list as initially proposed (1. LMN, bulk; 2. LMN, uniform; 3. IHR; 4. LWG; 5. LGS; 6. JDA; 7. TDA; 8. BON; 9. MCN; 10. CHJ; 11. GCL, and; 12. DWR) during today's meeting. TMT will revisit spill priority issues at its May 14 meeting, particularly placement of Little Goose on the list.

11. Operations Review

a. Reservoirs. Libby is at elevation 2386.6' with inflows of 22.4 kcfs and releases of 20 kcfs. Albeni Falls is at elevation 2056.2' with inflows of 72.5 kcfs and releases of

56.2 kcfs. Dworshak is at elevation 1500.8' with inflows of 19 kcfs and releases of 2.4 kcfs.

Hungry Horse is at elevation 3497.6' with releases of 8.4 kcfs. Grand Coulee is at elevation 1232.9' with spill of 8.2 kcfs.

Lower Granite daily average inflows are 102.8 kcfs. McNary daily average inflows are 318.4 kcfs. Bonneville daily average inflows are 335.6 kcfs.

b. Fish. Paul Wagner, NOAA, reported.

Juveniles: Recently 6,000 juveniles were collected at the Lewiston trap, a huge number. This is peak passage time. The most recent index count is 456,000 chinook at Lower Granite. On May 6, 128,000 steelhead passed Lower Granite, one of the highest index counts seen. Timing of steelhead is about midway and further along for chinook, with counts at all projects off the charts. McNary and John Day each passed 60,000 steelhead, and Bonneville 30,000. Some 15,000 sockeye passed Lower Granite, but it's not clear whether those are really sockeye or what percentage is wild. Charles Morrill, Washington, said there was probably escapement from Dworshak at this point. Wagner said not many juvenile lamprey have passed yet, with the highest numbers at John Day. In terms of timing, the FPC site reports passage is 95% complete for yearling chinook at Lower Granite.

Adults: Spring chinook continue to pass in significant numbers, 125,000 so far this season at Bonneville, with a possible peak of 17,000 in a day. The count to date is 170% of the 10 year average. The total forecast was for about 200,000, with the run meeting expectations for that forecast. Jack returns are in line with the 10 year average.

c. Water Quality. There was nothing to report today.

d. Power System. There was nothing to report today.

8. Next TMT Meeting

The next TMT meeting will be in person on May 14 in the state of Oregon building (near BPA). The agenda will include a water supply forecast update, Vernita Bar update, the John Day spill operation, Spring Creek Hatchery release and spill priorities, particularly LGS.

Name	Affiliation
Doug Baus	COE
Erick Van Dyke	Oregon
David Wills	USFWS
Paul Wagner	NOAA
Lisa Wright	COE
Scott Bettin	BPA

Julie Doumbia	BPA
Jesse Ray	COE
Tony Norris	BPA
Scott English	COE
Jim Litchfield	Montana

Phone:

Charles Morrill	Washington
Jim Litchfield	Montana
Mary Mellema	BOR
Kathryn Kostow	Oregon
Tom Lorz	CRITFC
Sheri Sears	Colville
Brian Zigler	Snohomish PUD
Tom Iverson	Yakama
Don Tinker	SCL
Margaret Filardo	FPC
Joel Fenolio	COE
Barry Espenson	CBB
Greg Lawson	Thompson Reuters
Russ Kiefer	Idaho