

## COLUMBIA RIVER TECHNICAL MANAGEMENT TEAM

March 30, 2016

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.*

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### **Dworshak Dam TDG Test**

Steve Hall, USACE Walla Walla, explained the USACE proposal for a spill test at Dworshak Dam and requested TMT feedback. Steve noted that the test is intended to mimic conditions that may arise during the Unit 3 overhaul which is currently scheduled from September 1, 2016 to May 1, 2017. During the Unit 3 outage, only the two smaller units will be in operation, and spilling could result in higher TDG concentrations. The intention of the TDG test is to assess the effectiveness of downstream vacuum degassers located at the hatchery when TDG is 115%. Steve noted that at this point, the project is aiming to conduct the test for a 6-hour period in the end of April/beginning of May, with a window of about a week between a hatchery release and the test. Doug Baus, USACE NWD, noted that the USACE is looking for input from TMT, and then will need to work with Idaho DEQ and Nez Perce Water to acquire a short duration exemption to operate above the water quality requirement not to exceed 110% TDG.

Dave Swank, USFWS, noted that USFWS is interested in also testing at 120% TDG. Steve Hall noted that this is possible; however, they would need to think more on what is the best way to do so as to not harm fish, as another 6-hour period of increased TDG level would be needed.

There was discussion regarding what information is already available from the hatcheries operating at 115% TDG. Ann Setter, USACE Walla Walla, noted that there is 2014 data that is likely a combination of the vacuum degassers and packed column degassers. There are now vacuum degassers for the entire hatchery and so this test would be providing new information as to what could be expected during the Unit 3 outage.

Erick Van Dyke, OR, asked if they will use the same methodology for this test as was used in previous years when data was gathered; he also requested that the USACE provide more detail of the proposed test in writing. Ann noted that she suspects that the TDG probes will be located in the same places at the hatchery and that they are using the same equipment. Steve Hall agreed to provide a description of the proposed test to TMT at the next meeting.

The Facilitator asked the TMT members present to provide input on both the 115% TDG test and the newly proposed 120% TDG test, recognizing that the details of the test are not yet fully fleshed out and more information will be provided to TMT. It was noted that this is not a final poll; instead, it is an opportunity for USACE to hear from TMT members early in the planning of the potential operation. TMT members shared the following:

- USFWS: Dave shared that USFWS is interested in information from both a 115 and 120% test.
- WA: Charlie Morrill shared that WA is supportive of both a 115 and 120% test, however, recommends that the two tests are performed separate from each other.
- Umatilla: Tom Lorz shared that Umatilla would like more information to inform the potential operations during the Unit 3 outage. He thought that the data from the 115 and

- 120% tests would inform long term decision making. He suggested installing a probe in a location prior to the degasser, as well as in the raceway to measure potential TDG increase.
- OR: Erick shared that OR is supportive of understanding the potential impacts of 115 and higher TDG to inform operations next year.
  - Nez Perce: Dave Statler shared that the results of the test will be useful considering the challenges they may face in the future. He cautioned that he is concerned about fish health at the downstream hatchery. Becky Johnson, NP, noted that they plan to release sub-yearling Chinook into downstream acclimation ponds in the first week of May and that there is no degassing available at the ponds. She also noted that there are millions of fish out-migrating and 4000 redds in the river downstream. Becky noted that she needs to talk to the hatchery and more coordination is needed to see if the test is viable (see action item below). [Later in the meeting Becky reported back from her conversation with the hatchery: they can hold off of releasing the fish into the ponds until May 4-5, which allows for the TDG test on May 2-3. However, this is a short term solution and does not address issues caused by increased TDG next year.]
  - ID: Russ Kiefer shared that they are supportive of the 115% and that he has not discussed the 120% test with his team yet, however, will encourage ID to support the 120% test as well. He noted that he is concerned with the impact to fish, however, the duration of the test is short and so impacts should be less. Russ asked if the USACE has talked with ID DEQ yet? Doug responded that they were waiting to see if TMT supported the test before talking to ID DEQ and NP Water Quality.
  - NMFS: Paul Wagner shared that NMFS supports the 115 and 120% tests and that the information gathered will inform decisions in the future.
  - BOR: Mary Mellema shared that they concur with the USACE.
  - BPA: Tony Norris shared that they support collecting the data so that TMT knows what to expect with the Unit 3 outage conditions.
  - Montana: Jim Litchfield asked if the operation requires a TDG waiver from ID and Nez Perce? Doug responded, yes.
  - Colville: Sheri Sears shared that they support getting the data and would like to see the test be as protective of the hatchery and acclimation ponds as possible.
- **ACTION:** Becky will send the USACE redd emergence data.
- **ACTION:** Dave Swank will coordinate with the hatchery to get PIT tag data on out-migrating fish to inform how long after the hatchery release the fish are out of the area.
- **ACTION:** The USACE will provide additional details, including a written description, for the proposed test at the next TMT meeting on April 6<sup>th</sup>.

### **Chum Operation**

Paul provided an update on the current chum operation. He noted that the Columbia spill operation will start on April 10<sup>th</sup> and should not be a concern for chum as there is plenty of water covering the redds. Doug Baus noted that the AA's will continue to implement as coordinated at TMT until April 9<sup>th</sup>, and then the emergence protection operation is over. Scott Bettin, BPA, noted that the Snake River spill operation starts on April 3<sup>rd</sup>. Doug noted that during spill season Lower Snake River Dams will operate at Minimum Operating Pool (MOP) which equates to operation of the reservoirs within the bottom 1 foot of their operating range.

- **ACTION:** The AA's will continue operating Bonneville with a tailwater minimum of 12.2ft through midnight on April 9, 2016.
- **ACTION:** On April 3<sup>rd</sup>, the AA's will begin the Snake River spill operation, as coordinated in the Fish Operations Plan.

→ **ACTION:** On April 10<sup>th</sup>, the AA's will be doing the Columbia River spill operation, as coordinated in the Fish Operations Plan: MOP operations, with a 1-foot operating range at bottom of pool.

**The next TMT meeting will be a face to face on April 6th at 9:00am.**

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

**March 30, 2016**  
Minutes: Pat Vivian

***1. Introduction***

Representatives of Washington, Idaho, Oregon, Nez Perce Tribe, BOR, USFWS, BPA, NOAA, COE, CRITFC/Umatilla Tribe, Yakama Tribe, Montana and others participated in today's TMT call chaired by Doug Baus, COE, and facilitated by Emily Plummer, DSC. This summary is an official record, not a verbatim transcript.

***2. Dworshak Dam Spill Test***

Baus gave the TMT an update on the status of the Dworshak Dam unit 3 outage coordination. Based on FPOM coordination the COE selected the dates of August 2016 through May 2017 for the unit 3 outage. The COE will be conducting a Dworshak spill test because during the unit 3 outage coordination with the FPOM the COE received feedback to conduct a Dworshak spill test to address the following issues: 1) Gather TDG data to determine the relationship between TDG downstream of Dworshak and the subsequent TDG in the Dworshak National Fish Hatchery raceways after passing through new degassing equipment, and 2) Replicate operational conditions (eg operations of unit 1 and unit 2 plus spill) that will mimic operations during the unit 3 outage in the future so are able to make informed decisions and have a better understanding of effects. While the unit 3 outage was coordinated with the FPOM the spill test is being coordinated with the TMT because the information that will be obtained from this test may be used in future Dworshak outflows discussions that are coordinated with the TMT.

Steve Hall, COE Walla Walla, said the goal of the test is to mimic conditions that might occur next year while unit 3 is out of service by running Dworshak units 1 and 2 for 6 hours until releases consistently generate 115% TDG saturation levels at the Dworshak National Fish Hatchery. Results of the test have the greatest implications for spring 2017 juvenile outmigration as well as winter flood control releases. The spill test will be scheduled around hatchery releases, allowing at least a week for the mid-April steelhead release to disperse before elevated TDG levels hit the river. Gages installed for the test will measure TDG at the hatchery intakes and in several raceway locations. Normal DWR operations will resume once the test is completed.

TMT members generally supported the spill test as good preparation for next year's operational constraints with DWR unit 3 out of service for months. TMT members provided the following feedback:

**USFWS** advocated testing both 115% and 120% TDG in two separate 6-hour periods. The region needs to know whether the degassers can handle 120% TDG in case that level of spill becomes necessary. The COE will consider testing 120% if other TMT members agree, Hall said, but waivers are needed from the Idaho DEQ and Nez Perce Tribe water quality staff to allow TDG levels higher than 110% for the test. If 115% and 120% saturation are both tested, it may occur on two separate days.

**Washington** supports testing both 115% and 120% TDG, with a few days of no spill in between for the sake of water quality and potential impacts on in-river fish.

**Umatilla Tribe** supports testing both 115% and 120% TDG. Two measurements are needed to address a reported 1% increase in TDG levels between the degassers and raceways. Ann Setter, COE Walla Walla, will address the 1% increase when meeting with hatchery staff on April 8 and report back to TMT.

**Oregon** supports testing a range of 115% TDG and higher. Has concerns about whether the equipment used in 2016 will be the same as in 2014. Hall said it is essentially the same; the 2014 TDG data could reflect a combination of vacuum degassers and without, while the 2015 data just reflects use of vacuum degassers (Setter will confirm this when she meets with hatchery staff on April 8). Oregon requested specifics from the COE on how testing this year will differ from previous years, e.g. the number of degassers used.

**Idaho** supports testing 115% TDG and will confer internally regarding 120% with a strong likelihood of supporting it.

**NOAA** supports a test of 115%-120% TDG with further coordination of details.

The **BOR** concurs with the COE's plan to do a spill test at DWR.

**BPA** supports TDG data collection at the hatchery and the river downstream. While this test will be short-term, next year's constraints will not be, nor will the effects.

**Montana** supports the spill test proposal.

The **Colville Tribe** supports the test but wants as much protection as possible for hatchery fish and those in the acclimation pond.

The **Nez Perce Tribe** agrees with Oregon that it's important to clarify whether or not data are isolated to vacuum degassing units. While the tribe

supports the spill test, that does not imply support of extended 115% TDG releases next year.

The COE will continue to post details of DWR degassing configurations on the TMT website under the FPOM link, Hall said. An effort to mimic winter 2017 operations is appropriate because there was no operation in 2015 that could simulate the coming spill season with unit 3 down.

Becky Johnson, **Nez Perce**, told TMT that further consideration of fish in the river is needed during the proposed testing period. The tribe operates the Big Canyon Acclimation facility for Snake River fall chinook downstream of Dworshak hatchery that has no degassers. Water moving downstream the first week of May will be sucked into the acclimation facility, potentially impacting 500,000 Snake River fall chinook subyearlings. The tribe also releases millions of juvenile salmon and steelhead into the Clearwater during the proposed test period. Some 4,000 Snake River fall chinook redds downstream of DWR will be emerging during the first week of May.

After checking with Lyons Ferry hatchery, Johnson reported back to TMT that the tribe will hold juvenile fall chinook on May 4-5, allowing the spill test to proceed on May 2-3. She noted, however, that fish will be in the acclimation pond during March and April of 2017.

In response to concerns about data collected under disparate conditions, Steve Hall, COE, will give TMT a written explanation of operational details. The COE will also follow up with the hatchery on PIT tag data. Pending approval from Idaho DEQ and the Nez Perce of a short duration exemption from state and tribal water quality standards, the COE will give TMT specifics of the actual spill test at the next TMT meeting April 6.

### **3. Chum Operation**

Flows are high enough that there's plenty of depth compensation to protect chum when spill starts April 10 on the Columbia, Paul Wagner, NOAA, reported. The COE will officially end the chum operation at midnight April 9, allowing BON to resume flexible tailwater operations. Spill on the lower Snake River projects will begin April 3.

### **4, Next TMT Meeting**

TMT will meet in person on April 6.

<b>Name</b>	<b>Affiliation</b>
Charles Morrill	Washington
Russ Kiefer	Idaho
Erick Van Dyke	Oregon

Dave Statler	Nez Perce
Mary Mellema	BOR
David Swank	USFWS
Tony Norris	BPA
Paul Wagner	NOAA
Doug Baus	COE
Tom Lorz	CRITFC/Umatilla
Ryan Lewis	Snohomish PUD
Margaret Filardo	FPC
Dave Benner	FPC
Shane Scott	PPC
Tom Iverson	Yakama
Makary Hutson	BPA
Michael Bryant	CBB
Emily Corrigan	Energy Keepers
Tory Hines	DSC
Lisa Wright	COE
Laura Hamilton	COE
Steve Hall	COE
Karl Kanbergs	COE
Greg Moody	COE
Scott Bettin	BPA
Becky Johnson	Nez Perce Tribe
Ann Setter	COE
Jim Litchfield	Montana