

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

**April 13, 2012**  
Notes: Pat Vivian

***1. Introduction***

Today's TMT conference call was chaired and facilitated by Doug Baus, COE. Representatives of BPA, COE, CRITFC/Umatilla Tribe, NOAA, Oregon, Idaho, USFWS, Colville Tribe, Washington, Nez Perce Tribe and others attended. This summary is an official record of the proceedings, not a verbatim transcript.

***2. SOR #2012-1, Bonneville Operation Over the Next Five Days to Facilitate Spring Creek Release***

The purpose of the unscheduled call today was to implement the SOR (2012-1) the COE received today, signed by NOAA, USFWS, the Nez Perce Tribe, CRITFC, Washington, Idaho, and Oregon (although Oregon was not a signatory on the SOR this was a procedural oversight and Oregon acknowledged the intent was for Oregon to be a signatory on the SOR). Speaking on behalf of the signatories, Paul Wagner, NOAA, explained the SOR, whose goal is to minimize injuries and mortalities of Spring Creek Hatchery juveniles when they pass Bonneville Dam.

The SOR asks the Action Agencies (AA) to implement two operations. First, operate Powerhouse Two (PH2) at the mid-point of the 1% best efficiency range. With all available units operational, at the above operational ranges, this would be the powerhouse capacity over the next 5 days; any flows above this powerhouse capacity would be spilled. In the past, limiting generation to the mid-point of the 1% operating range at PH2 has been shown to reduce injury and mortality of juveniles passing through the gatewells of PH2. Second, if powerhouse capacity is reached with the above operational criteria, and spill amounts lead to TDG exceedances below Bonneville Dam, then operate Powerhouse One (PH1) at open geometry outside of the 1% best efficiency range, while maintaining operations at PH2 at the mid-point of the of 1% range. This action could reduce spill by routing additional flow through PH1.

Wagner noted that NOAA supports the requested operation as a short-term solution only, while few adults are at Bonneville. Implementing this SOR is likely to result in spill of more than 100 kcfs, at which point adults begin to experience fallback and delays in the tailrace. Ultimately, FPOM needs to work out the long-term solution to the gatewell issue at Bonneville because it will involve tradeoffs. David Wills said USFWS shares NOAA's views on this. Wills emphasized that implementing this SOR would benefit run of the river fish for the next 5 days, not just those from Spring Creek Hatchery.

Baus explained at this time the AA are unable to implement the first component of the SOR. Limiting generation to the mid-point of the 1% operating range at PH2 would result in additional spill at a time when gas caps are being exceeded at Bonneville Dam. Furthermore, the legal and policy level coordination needed for the AA's to voluntarily limit PH2 generation to the mid-point of the 1% range identified in the SOR has not been completed at this time.

However, the AA's provided the Salmon Managers with a modified proposed operation that included components of the SOR the AA's would be able to implement. The AA's modified proposed operation to implement the SOR included the following specifications:

1. Operate PH2 up to 25% of the 1% operating range.
2. To pass additional flow, operate PH1 up to 100% (full capacity) of the 1% operating range.
3. To pass additional flow, increase PH2 units one at a time in the order of priority within the 25-50% of the 1% operating range.
4. To pass additional flow, operate PH1 at best geometry.
5. To pass additional flow, increase PH2 units one at a time in the order of priority within the 50-100% of the 1% operating range.

Russ Kiefer, Idaho, asked what the flow forecast is for the next 5 days. Flows are expected to rise from 285 kcfs to 310 kcfs this weekend, replied Scott Bettin, BPA. Doug Baus indicated the spill cap at Bonneville this weekend is 92 kcfs.

Kiefer said Idaho supports this SOR because it would help avoid unacceptably high rates of juvenile injury and mortality without associated adult fallback and delays. Kiefer and Wills observed that improvements to fish guidance efficiency at Bonneville have constricted the operating range of the PH2 turbines, making the original 1% operating range guidance ineffective. Therefore, it would be prudent to avoid mortalities in the PH2 collection system by capping the operation at the midpoint of 1% operating range.

The flexibility to exceed 1% operating range at PH1 could deliver much of what the salmon managers have requested without formally implementing the SOR, Bettin said. Implementing this provision alone could reroute approximately 12 kcfs from PH2 to PH1 in the best-geometry configuration. Currently PH1 is operating at 100% of 1% operating range.

Several of the Salmon Managers objected to having TDG water quality standards as the reason why PH2 operations would not be restricted at a time when the result could be high rates of juvenile mortality and injury. The whole point of the 120% TDG standard is to provide safe passage for fish, and high mortalities have been documented with PH2 units operating at the upper end of 1%, Margaret Filardo, FPC, said. Mortality rates double when unit flows rise from 14.7 kcfs to 17.8 kcfs with one open gatewell orifice.

Rick Kruger, **Oregon**, said it should be TMT's prerogative to set up an operation that benefits fish, even if that causes gas exceedances. The region should be able to limit hydraulic capacity for the duration of the hatchery release, and any excess flows would be regarded as involuntary spill.

The COE will make best efforts to limit PH2 turbines at the midpoint of 1% operating range through operational adjustments like best geometry at PH1. Should limiting PH2 to the mid-point of the 1% operating range result in exceeding the gas caps, the COE would operate within the full range (up to 100%) of the 1% operating range at PH2 in order not to exceed the gas cap. Managing spill to the gas caps is part of the operations identified in the FOP, and at this time the AA's do not have the discretion to voluntarily spill in excess of the gas cap, Bill Proctor, COE, said. In coordination with the region the AA's do have the discretion to operate PH1 units at best geometry in an effort to minimize the probability PH2 units would be operated in the 50-100% range of the 1% operating range.

TMT members gave their views of the AA's modified proposed action to operate PH1 at best-geometry before increasing PH2 unit operations to the 50 – 100% range of the 1% operating range:

**NOAA** supported the operation if limited to the 5-day period mentioned in the SOR.

**Oregon** did not object, but this operation is not the best for fish; Washington shared Oregon's view.

**USFWS** supported keeping PH1 at the upper end of 1% operating range until the units at PH2 reach the upper end of 1% operating range. At that point, any benefit to PH2 is lost, so it would be prudent to back off on PH1 flows because no data are available to clarify the tradeoffs involved when the PH1 units operate above 1% operating range.

**Idaho** supported operating PH1 at best geometry in order to maintain PH2 at the midpoint of 1% operating range, but did not support going above 1% operating range at PH1 if the PH2 units would be running in the upper half of 1% operating range anyway. The biological effects of running PH1 at greater than

1% operating range are unknown, making this operation desirable only as an aid in keeping PH2 operations within the desired range. Idaho was amenable to increasing the trigger for ending best-geometry operations from 50% of 1% operating range at PH2 to 75% of 1% operating range.

**Washington** proposed that the best-geometry operation at PH1 end when the PH2 units hit 75% of 1% operating range (rather than 100% of 1% operating range).

Taking into consideration feedback from TMT, the COE presented the following modified proposal as a way to implement the SOR to the best extent possible:

1. Operate the PH2 units at 25% of the 1% operating range.
2. To pass additional flows, operate PH1 units up to 100% of the 1% operating range.
3. To pass additional flows after PH1 is fully loaded, increase the PH2 units one at a time in the order of priority to 25-50% of the 1% operating range.
4. To pass additional flows after PH1 is fully loaded and all available PH2 units are operating at 50% of 1% operating range, increase the PH1 units to best geometry.
5. To pass additional flows after all available PH1 units are operating at best geometry, increase the PH2 units one at a time in the order of priority to 50-75% of the 1% operating range.
6. To pass additional flows after all available PH2 units are operating at 75% of 1% operating range, decrease PH1 unit operations to 100% of the 1% operating range and increase PH2 unit operations one at a time in the order of priority to 75-100% of the 1% operating range.

TMT members expressed their views of the modified proposal:

- **NOAA** – Supports the operation
- **USFWS** – No objection
- **Washington** – No objection
- **Oregon** – No objection, but wants to know why TMT doesn't set the project operating limits under these circumstances.
- **Colville Tribe** – No objection
- **Idaho** – No objection
- **Umatilla Tribe** – No objection
- **Nez Perce Tribe** – No objection
- **BPA** – Supports the operation

After the meeting, **BOR** expressed support for the operation and **Montana** had no objection.

#### ***4. Next TMT Meeting***

TMT will have a conference call on April 18 and will meet in person on April 25.

<b><i>Name</i></b>	<b><i>Affiliation</i></b>
Doug Baus	COE
Lisa Wright	COE
Scott Bettin	BPA
Tom Lorz	CRITFC Umatilla
Paul Wagner	NOAA
Rick Kruger	Oregon
Margaret Filardo	FPC
Dave Benner	FPC
Russ Kiefer	Idaho
Scott English	COE
Bill Proctor	COE
Dan Feil	COE
Dave Wills	USFWS
Sheri Sears	Colville Tribe
Charles Morrill	Washington
Dave Statler	Nez Perce