

**TECHNICAL MANAGEMENT TEAM  
MEETING NOTES  
March 14, 2002  
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE  
PORTLAND, OREGON**

**TMT Internet Homepage: <http://www.nwd-wc.usace.army.mil/TMT/index.html>**

**FACILITATOR'S NOTES ON FUTURE ACTIONS**

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.

**Spring Creek Release Updates/Status, Update on BON Screen Program:**

The Spring Creek Release operation was changed after a TMT conference call Wednesday. Due to heavy rain over the last few days, flows at Bonneville were increased to 200 kcfs and 100 kcfs spill, ending at 1 AM Thursday 3/14. Flows were then dropped to 170 kcfs and spill of 100 kcfs until noon on Thursday, when flows dropped again to 151 kcfs and 53.5 kcfs spill. This was to continue until 8 AM Friday. Dissolved gas levels were still low with plenty of depth submergence.

The Fish Passage Center shared passage sampling information. 26% of the released fish have passed Bonneville. As a result of this Oregon would like to extend the protection beyond Friday 3/15 at 8 AM and asked the Action Agencies if there was any room for flexibility. The BOR, BPA, COE, Washington, Montana and NMFS said the spill agreement reached on Friday 3/8 was already fulfilled and there is no more flexibility for continued spill. Oregon and USFWS would like to see more than 26% passage.

The operation continued until 6 AM Friday 3/15 and then went back to a tailwater of 11.4' or greater to protect chum redds.

The COE reported that the Bonneville screen installation at PH2 was completed March 9.

**Weather Briefing:**

**Water Supply Forecast:** Harold Opitz gave reports from the River Forecast Center. February's precipitation was above average at Grand Coulee and near normal everywhere else. The ten-day forecast showed a probability of below normal precipitation and temperatures.

**TMT Spring Products:**

COE members and Harold Opitz explained the new “spring products” or tools for TMT, which included volumes in relation to the water supply forecast, exceedance probabilities using various regulations, and potential flow ranges based on precipitation and temperature forecasts. TMT members gave a thumbs up to the tools which will be used to aid TMT members in risk

assessment of management actions throughout the season. Adding a 50% trace to ESP flow-ranges would be appreciated by some.

**Water Management Plan:**

**CRITFC River Operation Plan 2002:**

Kyle Martin gave an overview of the plan. Generally, tribes feel CBFWA is a better place for involvement. They are interested in government-to-government consultations on treaty trust issues. TMT members asked questions about why CBFWA is better for the tribes and suggested more discussion on this in the River Operation Plan for clarification purposes.

Comments are welcome from Salmon Managers and Action Agencies – send them to Bob Heinith at CRITFC.

Tom Lorz discussed CRITFC's spill proposal for 2002. He said the Fish Passage Plan and Water Management Plan should be linked more closely for TMT use.

CRITFC feels that an agreement is needed for spill at McNary and Lower Monumental to help increase survival and mitigate for last year's loss. The proposal is to spill what is possible at Lower Monumental until construction begins. Spring spill should start April 1, and summer spill should begin June 20. Questions came up about tern predation versus turbine spill, and which is worse. CRITFC's risk analysis supports spill as the better option. Tom said the plan will change as new data is gathered. Comments to the Action Agencies' Water Management Plan will be submitted to the COE next week.

**Action:** CRITFC and the COE will look together at the calculations used for reservoir elevations regarding modified VARQ at Libby and Hungry Horse.

**WMP Discussion:**

In their written comments, Oregon said the WMP should not replace Performance Standards. Paul Wagner discussed the standards and asked TMT to consider potential measures that could be implemented this year to make up for lack of survival at Lower Monumental. The Action Agencies need to make up 1% at the bottom of the system for in-river survival. Paul would like suggestions and further discussion at the next TMT meeting. NMFS will model any suggestions that are handed in before the next meeting.

The Action Agencies said they will respond to WMP comments in two to three weeks after the work is finished and reviewed by attorneys. Oregon suggested including the Spring Creek operation in the WMP to help plan for it in the future. Montana and others felt that more regional conversation may need to occur before putting the operation in the Plan.

**Action:** Oregon will send in a recommendation for the Action Agencies to consider and respond to.

**Shiftable Amount:**

The March final water supply forecast is down from the February final. 153 kaf of water will be shifted from Dworshak to Grand Coulee by the end of March.

The **Hanford Update** will begin when enough fish are caught. This may be an agenda item at the next meeting.

**Sturgeon Operations:**

Scott Bettin gave an update on the process. There may be an SOR from USFWS at the next meeting.

**Next Meeting, March 27<sup>th</sup>, 9 AM:**

**Agenda Items:**

- Hanford Update
- Sturgeon Pulse Operation (possible SOR from USFWS)
- Water Management Plan Comments
- Performance Standards
- Start of Snake River Spill
- Flow Augmentation of Spill
- MOP and MOP + 1 Discussion
- John Day

***1. Greeting and Introductions***

The March 14 Technical Management Team meeting was chaired by Rudd Turner of the Corps and facilitated by Donna Silverberg. The following is a distillation, not a verbatim transcript, of items discussed at the meeting and actions taken. Anyone with questions or comments about these minutes should call Henriksen at 503/808-3945.

***2. Spring Creek Hatchery Release Update.***

Rudd Turner reported that total flow at Bonneville has now been reduced to 151 Kcfs, 53.5 Kcfs of which is spill. That operation will continue until 8 a.m. tomorrow, at which point the 2002 Spring Creek spill operation will end, Turner said. Dissolved gas levels have stayed low, despite higher-than-anticipated flows, Turner said; none of the readings has exceeded 115%. Depth compensation over the chum redds has been adequate as well, Turner said.

Scott Bettin said it was his understanding that the spill operation was to end at 6 a.m., not 8 a.m. Ron Boyce said his preference would be to look at current fish passage information before making that decision. Margaret Filardo said there were questions at yesterday's meeting about the percentage of the Spring Creek Hatchery fish that have passed the Bonneville project so far; she said that, during the 24 hours ending at 7 a.m. this morning, subyearling chinook passage at Bonneville was 385,935, up from 18,242 during the 24-hour period ending at 7 a.m. yesterday. In all, said Filardo, about 26% of the total Spring Creek Hatchery release of 7 million+ is estimated to have passed Bonneville as of 7 a.m. this morning.

The take-home message, to me, is that we don't have any way of knowing what percentage of the run will have passed the project by tomorrow, said Boyce; that's why I would like to talk about extending this operation, to protect a larger percentage of the release group. Turner noted that, based on historic information, 80%-90% of the Spring Creek run should have passed Bonneville by tomorrow morning. I don't understand why you believe passage would be so much lower this year, given the fact that we saw a significant increase in natural flow just after the Spring Creek fish were released, he said. Filardo replied that Turner was basing that passage assumption on the wrong data set.

Scott Bettin noted that the salmon managers had the option of shaping the spill and flow any way they wanted; given that fact, and this historical data, why didn't you shape the spill somewhat differently? he asked. Wouldn't it have made more sense to start spilling when the fish began arriving at the project, rather than starting automatically at 9 a.m. Tuesday? Bettin asked.

The group discussed this point for a few minutes. Boyce observed that the 2002 Spring Creek operation so far has been essentially a freebie, because most of the water came from natural inflow, rather than from reservoir storage. Bettin replied that this is not entirely true; a total of 311 KAF will pass Bonneville by 7 a.m. tomorrow morning over and above the 125 Kcfs that would normally have been provided at Bonneville. He added that a significant volume of water was moved into the lower river in anticipation of this operation beginning.

Boyce reiterated his request that the Spring Creek spill operation be extended, given the fact that natural flows, rather than reservoir drafts, had provided most of the 311 KAF that will be delivered. I would like to explore what flexibility may exist in the system to continue that operation, he said. We've had a series of TMT and IT meetings, which yielded a clear direction for this operation, Bettin replied; we have exceeded the volumes we promised to deliver, and feel that no extension is warranted, particularly given the fact that the salmon managers had the option of shaping this spill any way they wanted to. We have lived up to our side of the bargain, said Bettin, and have no flexibility to extend this operation. I agree that we ought to stick to the agreement, said Turner. Wagner said NMFS agrees that the action agencies have lived up to their end of the agreement; it's now time to move on to other operational priorities, he said. Shane Scott said WDFW also agrees that the operation should end; they would prefer not to increase the risk to Grand Coulee refill. We had an agreement, said Jim Litchfield, and should abide by it. David Wills said the Fish and Wildlife Service would prefer to extend the Spring Creek spill program to protect more than 26% of the release group.

It sounds, then, as though the majority of the TMT feels there is no flexibility to continue the operation, said Silverberg; only Oregon and the Fish and Wildlife Service feel it should continue. Everyone else is ready to move on., she said, so that's what we're going to have to do. Fair enough, said Boyce, but I would like a written explanation from the action agencies laying out their rationale for refusing the extension request. Turner replied that there are meeting notes and facilitator's notes from all five of the recent TMT and IT sessions at which this topic has been discussed; those should be sufficient, in terms of a written decision record, he said.

### ***3. Weather Briefing.***

Harold Opitz of the National Weather Service reported that a weather pattern is emerging over the Northwest which appears somewhat similar to the one that produced spring drought conditions last year. He then shared information from the March early-bird forecast, noting that the Grand Coulee forecast is up 400 KAF from the March final forecast, to 96% of normal. There was no change in the forecast at The Dalles or Lower Granite from the March final forecast.

In general, said Opitz, the water supply is looking near-normal or slightly below-normal in most basins in the Northwest. Overall, he said, we are seeing at least some improvement over the conditions that prevailed last year. Aquifer recharge continues to be a concern, he added; even though we're seeing normal and near-normal snowpacks throughout the basin, there are some who feel that the need to recharge the aquifer is going to result in reduced streamflows during the runoff period; no one is sure how much. Opitz added that the current indications are that precipitation is slightly more likely to be above-average than below-average during the April-June period.

Karl Kanbergs and Julie Ammann of the Corps provided a briefing on the spreadsheet the Corps has used in years past to illustrate the available flow augmentation volume at three of the FCRPS storage projects. The model uses the March final water supply forecast to show the available augmentation volumes in Dworshak, Hungry Horse and Libby, factoring in three different future precipitation assumptions (below-average, average and above-average) and matching this information to the 60-year historic record of runoff shapes. Basically, said Kanbergs, we wanted to get a sense, from the TMT, of whether or not this tool has been useful in years past. He then spent a few minutes demonstrating this tool, explaining the nuances of how it is initiated, calibrated and run.

After a few minutes of discussion, there was general TMT agreement that this is a useful tool, and should be produced this spring. In response to a question from Turner, the TMT agreed that it would be acceptable for the Corps to choose a subset of historic water years to match the forecast water supply in 2002, once this year's forecast becomes clearer.

Ammann then described an alternative modeling approach, developed by the Corps to provide a more accurate picture of conditions in the system than SSARR. There was general agreement that this model, as well, would be a useful addition to the TMT toolbox.

#### ***4. 2002 Water Management Plan.***

Kyle Martin said CRITFC's comments on the 2002 Water Management Plan are not quite finished; he noted that the full text of these comments will be posted to the TMT homepage as soon as they are available. What we do have ready, however, is CRITFC's 2002 River Operation Plan, Martin said; he distributed copies of the plan and noted that further copies are available via the CRITFC homepage. Page 3 of the CRITFC plan lists 10 key recommendations:

- ***Decision-Making:*** The Technical Management Team and Implementation Team are useful for some regional information sharing but they do not suffice for river operations

decision-making and are not government-to-government forums. The Federal operators and NMFS should use CBFWA as a technical forum to discuss river operations where tribes can have meaningful input. Disputed issues should be raised to the executive committee table.

Turner noted that the tribes are welcome to take their place at the Regional Forum table and resume their role as active participants. Litchfield expressed surprise that the CRITFC tribes would favor the CBFWA table over the Regional Forum table, as the place where operational decisions would be made. Litchfield explored the value of the CBFWA table over the regional forum table. Martin said the tribes are heard more at CRITFC. Both Litchfield and Turner asked whether the CRITFC expectation was to include the Action Agencies in CBFWA. Martin invited Litchfield to write down and submit any comments he may have on the CRITFC River Operations Plan.

Continuing on through CRITFC's 2002 River Operations Plan, Martin touched on:

- **Emergency Declarations.** The definition of "emergency" and related procedures must be re-cast for 2002 to exclude any BPA financial problems. The definition of "emergency" must be based on unforeseen circumstances. Any power sales revenues accruing to BPA and attributable to an emergency situation must be set aside for salmon mitigation, where such amounts will be in addition to and not in lieu of previously planned BPA expenditure levels.
- **Energy and Water Conservation.** Water and land acquisition programs begun in 2001 should be continued. BPA should renew the 1995-2001 contract with Idaho Power Company to allow flexibility in flow augmentation through power exchanges.
- **Runoff Forecast.** The Plan assumes that the current forecast of 95% of normal precipitation pattern will continue into the spring, while the NW River Forecast Center continues to predict "near-normal" precipitation. Based upon the historical flow record that shows a declining runoff pattern in average to below-average water years, CRITFC anticipates that a continuing pattern of below-normal precipitation is likely. New water supply correction curves suggest a medium-low water year. Runoff in the CRITFC 2002 River Operations Plan is based on 95% of normal precipitation.
- **Flow and Reservoir Management.** Available storage and runoff should be shaped to meet peaking, normative hydrographs at Priest Rapids, Lower Granite, The Dalles and other index points. The object is to provide flushing flows during the main portions of the juvenile and adult migrations and to leave as much storage as possible for resident fish and tribal cultural resource protection. Current, aggressive flood control drafts should be immediately curtailed. As opposed to the Corps' 2002 Water Management Plan that does not implement Variable Q operations, the CRITFC 2002 Plan recommends that Variable Q operations be implemented at Libby and Hungry Horse without compensating drafts at Lake Roosevelt. This action would hold storage at upper reservoirs consistent with historic runoff volumes for less than average water years. (please refer to CRITFC's 2002 River Operations Plan for further details of this recommendation.)
- **Power Peaking.** Power peaking should be restricted, particularly in the Hanford Reach, to avoid impacts to emerging juveniles, to fish ladders and to allow proper conduct of treaty fisheries

- **Flow Augmentation.** An additional 500 KAF should be added to the 427 KAF required in the 2000 FCRPS Biological Opinion for a total of 927 KAF flow augmentation from the Upper Snake and Bureau of Reclamation and Corps Upper Snake reservoirs. Banks Lake should provide 260 KAF in August for flow augmentation and energy production. An additional 500 KAF from Canadian non-treaty storage above the 1 MAF called for in the NMFS Biological Opinions should be allocated for downstream flows.
- **Dworshak Operations:** CRITFC recommends that the Nez Perce/Idaho plan for Dworshak be implemented in 2002
- **Extra Storage.** CRITFC recommends the retention of an extra half-foot of water in all storage reservoirs at the end of 2002 in anticipation of El Niño conditions in 2003.

Tom Lorz then briefed the TMT on the spill operations laid out in the CRITFC 2002 River Operations Plan. The plan makes the following key recommendations:

- Passage through spill should be provided whenever possible this year, given the poor passage conditions and survival experienced by fish due to lack of spill in 2001.
- CRITFC recommendations provision for summer spill at Lower Granite, Little Goose and McNary Dams above the requirements of the 2000 Biological Opinion
- CRITFC recommends provision for daytime spill at John Day, McNary and the Lower Snake Dams. When implemented, daytime spill has been demonstrated to be as successful or more so than nighttime spill at most dams.
- The Corps of Engineers should complete their timely application for a total dissolved gas waiver to the appropriate water quality agencies to allow for both spring spill at the eight federal dams and summer spill at all dams except Lower Monumental where emergency stilling basin repairs preclude spill.

The group thanked Lorz for his input, then moved on to a discussion of the comments TMT member received on the 2002 Water Management Plan. Wagner said he was struck by one comment from Oregon: that the Water Management Plan is not a substitute for performance standards. Wagner spent a few minutes going through the applicable BiOp in-river performance standards for spring chinook and other species; he noted that, according to NMFS' analysis, system survival will not meet the BiOp performance standards in 2002. Basically, said Wagner, we need to increase system survival by approximately 1%. I wanted to get the TMT members thinking about what sort of potential measures -- spill and other actions -- could be implemented this year to make up for the expected lack of survival, survival below the performance standards for this year, Wagner said. Hopefully, we can then discuss those potential survival enhancements at the next TMT meeting. Those would be measures that could be implemented this spring? Silverberg asked. Correct, Wagner replied. And NMFS has some ideas? Litchfield asked. We do, Wagner replied. Has NMFS put something in writing? Boyce asked. Yes, Wagner replied – I'll distribute it to the rest of the TMT.

Boyce asked when the action agencies will be responding to the comments submitted to date on the 2002 Water Management Plan. It will likely be two or three weeks from today, Scott Boyd replied. Boyce said that, in Oregon's view it would be prudent to institutionalize the Spring Creek spill operation in the Water Management Plan – I even think it would be a good idea to include a section on that operation in the 2002 plan, Boyce said. Bettin replied that it is his

understanding that the Power Planning Council will be taking up the Spring Creek issue, and should develop their recommendation prior to the development of the 2003 Water Management Plan. That doesn't preclude us from including a section on the Spring Creek operation in the 2002 Water Management Plan, said Boyce. Litchfield replied that there is an ongoing debate about the entire Spring Creek release and options that might preclude the need for this annual spill program in the future.

The group devoted a few minutes of debate to the question of whether or not the 2002 Water Management Plan should be modified to include a section on the Spring Creek Hatchery spill operation. Ultimately, Boyce said he will submit his suggestion in the form of a comment on the 2002 WMP as soon as possible; the action agencies can then respond accordingly.

**5. *Shiftable Amount.***

Cathy Hlebechuk said that, with respect to the 2002 Dworshak/Grand Coulee flood control shift, it should be possible to shift 153 KAF from Dworshak to Grand Coulee by March 31; that will result in a Dworshak elevation of 1518 feet, 11 feet above the flood control elevation at that project. We'll then be at 1277.9 feet at Grand Coulee following the shift, instead of 1279.8 feet, Hlebechuk added.

**6. *Hanford Update – 2002 Agreement.***

Bettin said the Hanford fish protection operation has not yet begun because field personnel have not yet caught enough emerging fish; he said he will provide another update at the next TMT meeting.

**7. *Next TMT Meeting Date.***

The next meeting of the Technical Management Team was set for Wednesday, March 27 from 9 a.m. to noon. Meeting summary prepared by Jeff Kuechle, BPA contractor.

**TMT MEETING PARTICIPANTS**

**MARCH 14, 2002**

<b>Name</b>	<b>Affiliation</b>
Scott Bettin	BPA
Ron Boyce	ODFW
Ruth Burris	PGE
Dick Cassidy	COE
Suzanne Cooper	BPA
Margaret Filardo	FPC

Russ George	WMCI
Laura Hamilton	COE
Richelle Harding	D. Rohr & Associates
Robin Harkless	Facilitation Team
Tim Heizenrater	
Cindy Henriksen	COE
Jim Litchfield	Consultant (Montana)
Kyle Martin	CRITFC
Tony Norris	Reclamation
Harold Opitz	NWS
Steve Pettit	IDFG
Chris Ross	NMFS
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