TECHNICAL MANAGEMENT TEAM
CONFERENCE CALL NOTES
March 6, 2002
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE
PORTLAND, OREGON

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

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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.

SOR 2002-1:
Today's conference call was convened to discuss SOR 2002-1, presented by the Salmon Managers from ODFW, WDFW, USFWS, CRITFC, and NMFS. The request was for spill and flow at Powerhouse II at Bonneville Dam for the Spring Creek Hatchery release. The request included:

- Flow of 170 kcfs;
- spill starting at 80 kcfs and increasing to 100 kcfs;
- maintenance of a TDG of 105% or lower;
- a five- to ten-day operation beginning March 11 at 8:00 PM; and
- consideration of the April 10th rule curve elevations named in the Biological Opinion.

Redds have been found in areas never seen before so there is little information about gas levels in these areas – which is why the request asks for a gradual increase of spill and the use of real-time monitoring throughout the operation.

The COE responded that, based on current expectations with the Federal projects in meeting April 10 objectives, the request as it relates to the water supply forecast would be too risky to implement. The final forecast is due out Friday, which everyone agreed would provide more insight into this issue. BPA also noted that this operation could show potential dewatering of chums later. Any water that is used now must be made up later. Tony Norris said the BOR's priorities are chum and meeting the April 10 target and that this operation could jeopardize those priorities. Cindy Henriksen asked the Salmon Managers to consider a lesser flow that could be negotiated.

After a caucus, the Salmon Managers announced that the SOR was to remain as it was submitted and requested a response from the Action Agencies. BPA said that the current operation, drafting at 125 kcfs with no spill, would remain as it stands if the alternative was to implement the SOR. The BOR was not willing to jeopardize chum or the April 10 refill. The COE also was not willing to jeopardize the refill objective to implement this SOR, but was willing to discuss flexibility. The Action Agencies offered an alternative to

the SOR: implement flow of 150 kcfs, 50 kcfs of spill, for a 24-hour, three-day period (subject to real-time monitoring of gas levels).

The Salmon Managers did not agree to the proposed alternative, so the issue was raised to IT. The following question, which Cindy Henriksen sent out to TMT members, will be framed at the IT conference call tomorrow at 2 pm:

What are acceptable risks to implementation of SOR 2002-1, and how are they calculated? The three components of risk to the SOR include:

- 170 kcfs flow at Bonneville Dam for three days. Of this total flow, 100 kcfs is spill.
- The spill from Bonneville Dam is not to impact chum redds downstream and therefore total dissolved gas should not exceed 105% as measured at the chum redds.
- The operation should not compromise the system's ability to achieve April 10 flood control elevations at federal projects.

**The next TMT face-to-face meeting was rescheduled for Thursday, March 14th, at 1 pm. Check the Feb. 27th notes for a draft agenda.*

1. Greeting and Introductions

The March 6 Technical Management Team conference call to discuss spill operations in support of the upcoming Spring Creek Hatchery release was chaired by Cindy Henriksen 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 Cindy Henriksen at 503/808-3945.

2. Spring Creek Hatchery Spill Operation.

Prior to today's conference call, the action agencies received SOR 2002-1, covering spill operations in support of the 2002 Spring Creek Hatchery release. This SOR, supported by ODFW, WDFW, CRITFC, USFWS and NMFS, requests the following specific operations:

- No operation of unscreened units at Bonneville Powerhouse I or II and follow the turbine operating priority in the Fish Passage Plan; Operate Powerhouse II as first priority.
- Fully load PH II before operating PH I; Operate PH II ice and trash sluiceway; Operate turbine units within 1% of peak efficiency; Operate juvenile and adult facilities according to criteria;
- Provide an instantaneous flow of 170 Kcfs. Based on modeling by the USFWS, we estimate that a flow of 170 Kcfs is sufficient to allow approximately 100 Kcfs of spill 24 hours a day, while maintaining a maximum level of 105 % TDG (factored for depth compensation) at the Ives Island gage 3 and the highest

elevation chum salmon redd on the Oregon shore.

- Provide an initial spill level of 80 Kcfs, increasing to 100 Kcfs or more dependent on real-time TDG monitoring. Because of our desire to be conservative and provide maximum protection to the ESA listed chum salmon, we request that spill initially be provided at a level of 80 Kcfs. Spill is to be increased based on real-time TDG measurements collected by the USFWS. The USFWS will notify the project operator beginning the evening of March 11, 2002 if spill levels can be increased while not exceeding 105% TDG factored for depth compensation at the highest elevation chum redd. (At no time is spill to exceed 120% total dissolved gas measured at the Warrendale monitor as allowed under the dissolved gas waiver request to be considered by the Oregon Environmental Quality Commission on March 8.)
- These operations are to begin at 2000 hours on March 11, 2002. If after five days of flow augmentation and spill operations it has been estimated that at least 85% of the release has passed Bonneville Dam, the operations may be terminated. If less than 85% of the release has passed Bonneville Dam after five days of operations, continue flow augmentation and spill for up to ten days or until an estimated 85% of the release has passed Bonneville Dam.
- We recognize that based on the past few months' reservoir operations, reservoirs are presently near, or in some cases below, flood control rule curves. We request that the Action Agencies use the remaining flexibility in the system to accomplish this SOR without jeopardizing the April 10th rule curve elevations called for by the Biological Opinion.

Ron Boyce spent a few minutes going through the actions requested and justifications for this SOR, the full text of which is available via the TMT's Internet homepage. The salmon managers feel there is adequate water in the system to accommodate this operation without significantly impacting refill possibilities later this spring, said Boyce; it is, in fact, substantially less than we've requested in past years' Spring Creek Hatchery spill SORs.

You would expect most of this additional water to come out of Grand Coulee? Scott Bettin asked. That's something the operating agencies would need to decide, Boyce replied. Henriksen said that, with respect to the probability of meeting the April 10 flood control elevation targets, the water supply forecast has been dwindling somewhat; the March final forecast is due out this Friday. Based on the most recent forecast information we have, however, Henriksen said, we would expect to see flows in the 120 Kcfs-125 Kcfs range at Bonneville through April 10 if we're to stay on track in meeting those April 10 elevations. The additional 50 Kcfs in flow requested in this SOR is troublesome to the action agencies, in terms of meeting those April 10 elevation targets.

Flows were higher in February, said Boyce – in the 170-180 Kcfs range. Why are they projected to be so much lower in March and April? We were meeting higher loads in February, Bettin replied; the purpose of that operation was to meet load and intersect with the flood control elevation targets in April.

Jim Litchfield observed that it will be necessary to fill Grand Coulee by five feet, to elevation 1262, by April 10 if the target at that project is to be met. How much spill could we have if Bonneville flows continue in the 120-125 Kcfs range? Litchfield asked. About 50 Kcfs, replied David Wills, but that will not provide adequate coverage for all of the chum redds below Bonneville. The group discussed whether or not precise information exists about the location of all of the redds of concern; Boyce replied that ODFW can provide a map showing the GPS coordinates and elevation of all of the redds. Wills added that a map of Ives/Pierce Island redd locations is available via the Fish Passage Center homepage.

In response to a question from Bettin regarding chum emergence timing, Don Englund and Howard Schaller said field crews are just starting to see juvenile chum emerging from the redds; emergence will likely continue through April. Flows were in the 140-150 Kcfs range at Bonneville during the most recent field surveys; water levels were at least four feet over the highest redds at that flow volume.

Bettin said that, as far as he knows, there isn't enough system flexibility to provide 170 Kcfs in Bonneville flow and to meet the April 10 flood control elevations at the upriver storage projects. My concern, he said, is that if we draft Grand Coulee deeper now, that's water that won't be available to us later in the spring and summer period. In response to a question, Boyce said the salmon managers don't want to violate any BiOp RPAs in order to accommodate this SOR; however, the Spring Creek fish have tremendous importance and value to the ocean and lower river fishery.

The group discussed what would be lost, biologically, if the requested Spring Creek spill is not provided. Essentially, you're asking for 100 Kcfs spill for five days? Henriksen asked. For 100 Kcfs spill until 80% of the Spring Creek juveniles have passed Bonneville, Wills replied. Litchfield asked about the incremental benefits of this operation – how many Spring Creek chinook would be expected to survive to adulthood if this operation is implemented. Wills estimated that 250,000-300,000 fewer juveniles will survive past Bonneville if this spill is not provided. This is out of a total release of about 15 million fish, said Bettin.

We can talk about incremental benefits, said Paul Wagner, but the real issue here is the fact that there has been a historical commitment, on the part of the action agencies, to provide spill in support of the Spring Creek Hatchery release. Has something changed? Wagner asked. One thing that has changed is the fact that chum are now a listed species, while the Spring Creek chinook are a hatchery stock, said Bettin; protecting the Ives/Pierce Island chum is a higher priority than providing spill for the Spring Creek Hatchery fish.

Boyce expressed discomfort with the direction of this debate -- we shouldn't be talking about whether we should be protecting these fish at all, he said; we should be talking about what we can do for these fish.

Henriksen reiterated her concern about the adverse impacts of a lower river flow of 170 Kcfs on the system's ability to meet its April 10 flood control target elevations. In response to a question from Boyce, Henriksen said the current SSARR run shows detailed current reservoir elevation data; based on that data, she said, if we are to meet those April 10 flood control targets, the Corps is projecting an average flow at Bonneville of 120-125 Kcfs over the next month or so. Any additional flow in the lower river between now and April 10 will diminish the volume we have in storage, she said.

Wills observed that there is considerable uncertainty associated with the water supply forecast at this point in the season. That is true, Henriksen agreed. The group then discussed possible compromise flows – flows at which at least some spill can be provided at Bonneville, without severely impacting storage reservoir refill probability. Wagner noted that lower river flows were also about 125 Kcfs at this point in the 2001 season; the TMT ultimately agreed to spill 50 Kcfs at Bonneville in support of the Spring Creek release. The concern, of course, is depth compensation -- the depth of coverage over the redds, and potential TDG impacts if there isn't enough water over the highest redds, Wagner said.

The discussion continued in this vein for some minutes. Boyce reiterated his request that the action agencies use the inherent flexibility in the system to provide the requested flow and spill at Bonneville without detrimentally impacting later refill probability. If you can point us in the direction of that flexibility, Bettin replied, we're willing to listen. Henriksen said that, while there is some flexibility in the system to provide additional flow, an additional 50 Kcfs isn't just flexibility – it's a major change in operation.

If we were to provide 50 Kcfs spill, Henriksen said, how much powerhouse flow would be needed to provide adequate depth compensation? At least 150 Kcfs in total flow, Wills replied. Then let's explore the option of 150 Kcfs as the total flow at Bonneville for a few days, said Henriksen.

After a few minutes of additional discussion, Boyce observed that, in his opinion, the winter power drafts have emptied the reservoirs to the extent that it is not possible to meet the Spring Creek spill request. They have been drafted for power, but only to an extent that the action agencies are confident of meeting their April refill targets, Tony Norris replied. At this point, Boyce requested a caucus break, to give the salmon managers an opportunity to discuss how best to proceed with this issue.

When the meeting resumed, Boyce said the salmon managers had agreed that the SOR stands as written; this being the case, he said, we would like a response from the action agencies about the SOR. If it has to be all or nothing, Bettin replied, then the operation you'll see is 125 Kcfs at Bonneville with no spill. In other words, said Henriksen, we will continue to operate toward the April 10 refill targets.

Saying "the SOR stands" could mean many things, Henriksen said – what is your understanding of what it means? That the operations requested in SOR 2002-1 -- increase

Bonneville outflow to 170 Kcfs flow and 80 Kcfs spill beginning at 8 a.m. Monday, with TDG not to exceed 105% TDG over the chum redds, with spill ramping up gradually until 85% of the Spring Creek juveniles have passed Bonneville -- will be implemented as written, Boyce replied. We do not, however, want this operation to conflict with the operation to achieve the April 10 rule curve elevations, he added.

It sounds, then, as though BPA's response to this SOR is that they will provide 125 Kcfs total flow at Bonneville, with no spill, said Boyce. If the salmon managers' position is that we must implement all or nothing of this SOR, with no possibility for a compromise operation, that's correct, Bettin replied. There simply isn't enough physical flexibility in the system to implement this SOR as written, Bettin said.

What might the action agencies be willing to provide, in terms of a compromise? Boyce asked. We talked before the break about the possibility of providing 50 Kcfs spill, with a powerhouse flow to be determined – something on the order of 150 Kcfs total flow at Bonneville, Henriksen said. That's where we broke for the caucus, so we never heard a response from the salmon managers, she said.

So the SOR stands, but it has been rejected by the action agencies, Boyce said. We are trying to work with you to implement this SOR, but we're not willing to jeopardize Biological Opinion operations to provide Spring Creek spill, Bettin replied. It sounds as though we need a better understanding of the flow and spill volumes it might be possible to provide at Bonneville without jeopardizing April 10 refill, Litchfield said. Again, said Henriksen, there is a new water supply forecast due out on Friday; it might be possible to explore some sort of a compromise, with spill in the 50 Kcfs range and flow in the 150 Kcfs range, for some fixed period -- say, three days. Obviously, intensive monitoring of TDG levels at the chum redds would be a necessary component of such an operation. Would that spill be around the clock? Litchfield asked. We could meet the 150 Kcfs flow around the clock, said Bettin, but we might want to turn spill on and off as appropriate to meet downstream TDG needs at the redds.

The group devoted a few minutes of discussion to this proposed operation. Ultimately, Wills said that, in his view, there would be value in having the IT discuss this operation at a conference call tomorrow. The issue, he said, is that the salmon managers feel they have crafted a reasonable operation; there is adequate flexibility in the system to implement that operation, and the question is, why can't this SOR request be met? Oregon would also like to join the Fish and Wildlife Service in elevating this issue to IT, said Boyce, in the hopes of obtaining a fuller explanation of why this SOR cannot be implemented.

For the record, said Henriksen, the action agencies are not refusing to implement this SOR – they physically cannot implement this SOR while meeting all of their other requirements. On the other hand, she said, the action agencies have offered a compromise of providing 150 Kcfs of flow and 50 Kcfs of spill for three days at Bonneville, and the salmon managers have refused that compromise.

Wills reiterated that, in his opinion, this discussion needs to be elevated to the IT. Boyce suggeste 10 flood control elevations while meeting the 125 Kcfs minimum flow at Bonneville for chum protection, Bettin replied.

A few minutes of further TMT discussion yielded the following issue statement to be elevated to the IT: What are the acceptable risks associated with the full implementation of SOR 2002-1, and how should those risks be calculated? To me, said Wagner, the issue here is simple – we can implement this SOR if we're willing to place April 10 refill in jeopardy at some projects – what magnitude of risk is acceptable? Are the SOR supporters willing to add half a MAF of additional risk to meeting the April 10 target elevations? Norris said – that's something you probably need to talk about internally prior to the IT call.

Henriksen said she will contact the IT to let them know this issue will be elevated; it is expected that a 1 p.m. Thursday conference call will be convened to resolve this issue.

3. Next TMT Meeting Date.

An IT conference call to resolve this issue will be convened at 2 p.m. Thursday, March 7. The next face-to-face meeting of the Technical Management Team was changed to Thursday, March 14 from 1 p.m. to 4 p.m.. Meeting summary prepared by Jeff Kuechle, BPA contractor.

TMT Participant List

March 6, 2002

Name	**Affiliation**
Scott Bettin	BPA
Ron Boyce	ODFW
Ruth Burris	PGE
Dick Cassidy	COE
Don Englund	USFWS
Margaret Filardo	FPC
Russ George	Water Management Consultants Inc.
Laura Hamilton	COE
Richelle Harding	D. Rohr & Associates
Cindy Henriksen	COE
Jim Litchfield	Consultant (Montana)

Ningjen Liu	IdaCorp Energy
Kyle Martin	CRITFC
Tony Norris	Reclamation
Mike O'Bryant	Columbia Basin Bulletin
Bill Rudolph	NW Fish Letter
Howard Schaller	USFWS
Shane Scott	WDFW
Rudd Turner	COE
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Steve Wallace	PacifiCorp
David Wills	USFWS