

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES
February 18, 2004
COE RESERVOIR CONTROL CENTER - CUSTOMS HOUSE
PORTLAND, OREGON**

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

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.

Bonneville Adult Ladder Attraction Spill:

Currently, there is a March 1 start date operation for beginning spill for adult fish attraction at Bonneville. FPAC discussed and developed a set of criterion that could be used in addition to the March 1 start date target, over the next few weeks. Dave Wills, USFWS, presented the criterion:

- Using a three day average, if less than 10 adult wild steelhead are observed passing Bonneville, do not spill.
- If 10 or more fish are observed, spill for three days, then reevaluate.

The 'threshold' number of ten fish was a compromise amongst the salmon managers based on historical data of fish passing the dam during this time period. BPA commented that this number seems very conservative. The salmon managers reported that the stock status review shows these fish are at a very high risk of extinction. FPOM is also looking at the issue and working to develop a longer term plan to put into the Fish Passage Plan. The salmon managers brought their proposal to TMT in the context of 2004. Handouts with data on steelhead numbers was provided, and can also be viewed on the TMT web page.

ACTION: *TMT members agreed to the following criteria from now until March 1st: If the numbers of wild adult steelhead rise appreciably over a three day period, TMT will revisit the issue and potentially start spill earlier than March 1st. (Note: Dave Statler, Nez Perce, raised a concern that the fish counts are not always immediately available. Therefore, how effective can the agreed-to process be?) There may be a follow-up discussion of this at the next TMT meeting.*

Salmon Managers Update of Adult Fish Counts in the Lower Snake:

The salmon managers discussed the criteria, relative to actively migrating adults, for stopping zero night time flow in the Lower Snake. They focused on the 'few, if any' language and developed the following criteria:

- Using a three day moving average, wild and total adult steelhead passing Lower Granite calculated separately. Using a sliding scale, "few" was calculated based on the run to date. (A more detailed description of the criteria was provided in a handout and can be found on the TMT web page.)

The Nez Perce did not object to the sliding scale proposal, but prefer a fixed criterion of less than 10 adults. Russ Kiefer, Idaho, said that the salmon managers' goal was to avoid a mid-season debate by defining the criteria before the season. He also noted that the criteria were based on a compromise amongst the salmon managers. The next step discussion will be what the impacts of zero nighttime flow are on these fish.

After further discussion and a caucus, the COE offered their interpretation of the language, because there are few if any fish in the river, zero nighttime flows are acceptable during this time period. Cindy Henriksen expressed appreciation for the work the salmon managers put into this, including the quick turnaround on a 'big question'. Given the uncertainties about impacts, the COE would like to continue the current operation of zero nighttime flow through the end of February. BPA agreed that there needs to be further exploration of the impacts, and at this time was not ready to move forward with the salmon managers' proposed criteria.

ACTION: The salmon managers proposed criteria will not be used at this time; operations will continue with zero nighttime flow. FPAC will revisit this issue at their next meeting and discuss what the next steps should be. TMT members agreed that additional study of the impacts of zero nighttime flow on adults is needed. There may be a follow-up discussion of this at the next TMT meeting.

Spring Creek Update:

Dave Wills reported that there was a meeting scheduled for later today (2/18); at this time the action agencies and USFWS are still in negotiations on how to approach the evaluation for Spring Creek hatchery releases. The release could occur as soon as March 4th. Dave will continue to update the TMT on this issue.

Spring/Summer Update:

A rough draft spring/summer update of the WMP will be available at the next TMT meeting. In the meantime, TMT members should look at the final from last year, dated May 7, 2003 – the document is available on the TMT web page. Any comments provided over the next week will be included in the first draft for '04. Scott Boyd, COE, will send the document in Word Perfect to anyone who requests it.

Operations Update:

The February final water supply forecast is out: Grand Coulee is at 59.8 MAF (95% normal); the Lower Granite Jan-July is 20.8 (97%); The Dalles April-Aug is 88.2 (95%). All forecasts are slightly down from the January final. Cindy Henriksen provided a handout of the QAdjust, which can also be found on the TMT web page. The handout included assumptions for 2004 operations, results of flow objectives, and period average flows (this was provided as requested by a TMT member).

Hungry Horse is at elevation 3516' and drafting to meet Columbia Falls. Grand Coulee is at 1263'. The BOR's February final forecast for Grand Coulee April-Aug is 2146 kaf (104% normal). The Libby final is 5.6 MAF (90% normal). VARQ is at elevation 2435'. The Dworshak final is 2.6 MAF (98% normal). Some flexibility is being used at Dworshak with the shifted flood control elevation, in order to avoid spill in March. Idaho supported steady, gradual shaping throughout the week, which is how the COE is

currently operating. Nez Perce and CRITFC support a high Dworshak elevation through April 30 to support Lower Granite flow augmentation.

Next Meeting, March 3, 9am-noon:

Agenda items:

- CRITFC 2004 River Operations Plan
- Spring/summer Update
- Spring Creek Update
- Continue Criteria Discussion(s) from today?

1. Greeting and Introductions

The February 18 Technical Management Team meeting 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 Henriksen at 503/808-3945.

2. Bonneville Adult Ladder Attraction Spill December Through March.

David Wills said FPAC discussed this issue at some length at its meeting yesterday; there were various opinions about how much, if any, attraction spill is needed at the Bonneville adult ladders. We did develop a proposed criterion for defining when attraction spill might be most useful, he said; you look at a moving three-day average, and if the running three-day wild steelhead count hits 10 or greater, then spill would be initiated, and evaluated for three days. The concern is that we didn't want to have a stoplog there if we saw large numbers of steelhead moving at an unexpected time of year, Wills said.

What kind of data exists about the influence of attraction spill on wild steelhead? John Wellschlager asked. I'm not sure what data exists, Wills replied, but it has customarily been provided when the fish begin to move. Basically, we don't want to wait too long to optimize passage conditions once the steelhead start to move, added Chris Ross. It sounds as though there is no way to quantify that, however, said Wellschlager. That's correct, said Ross – it's best professional judgement. Ross added that the ladders themselves are very efficient; once the fish are guided into the ladders, they pass the project very efficiently. In response to a question from Henriksen, Ross said there are studies, at Bonneville and other projects, that show that attraction spill is effective in helping adult migrants find ladder entrances.

The Fish Passage Plan specifically states that attraction spill will be provided from March 1 through December 1? Wellschlager asked. Yes, but the FPP was a part of the BiOp consultation, Ross replied. Wellschlager said that, while he understands the need for attraction spill, 10 fish per day seems like a very low threshold. Not as low as some FPAC members wanted to see, Wills replied – it was a compromise. Bear in mind that we're talking about 10 wild listed steelhead, which is one of the species we're trying hardest to protect, given the risk of extinction for this stock shown in the stock status

review, said Ross – numbers are low, and they tend to increase rapidly once passage begins. We wanted to be sure we had good passage conditions once passage begins in earnest, he said.

Is FPAC's criteria proposal for this year only? Henriksen asked. We didn't discuss that specifically, Wills replied; I guess I would say let's look at it this year, and see what happens with the BiOp remand. But isn't there a parallel process looking at this issue through FPOM? Henriksen asked. Yes, that's correct, Ross replied – our recommendation is to re-initiate attraction spill for 2004 only, while the FPOM subcommittee looks at the issue longer-term.

Russ Kiefer reiterated that wild winter steelhead are a critically depressed population, and said that, in IDFG's view, it is important to provide whatever protection the salmon managers deem appropriate for this species. Ross noted that the FPP doesn't mandate or prohibit spill during the December 1-March 1 period; he noted that these criteria might be applied in addition to the guidance in the FPP, if a surge in wild steelhead passage is seen during that period. We agree that once the steelhead start moving, we want to keep them moving, said Henriksen; in years past, however, we've seen them starting to move around March 1. It seems to us that the March 1 date is reasonable; however, if we do see a large upsurge in steelhead movement, we're certainly willing to engage in conversation about re-initiating attraction spill at Bonneville, Henriksen said. And that was the intent of this criterion, said Wills. That's reasonable, said Wellschlager; however, from my perspective, I'm not sure the criterion you propose – 10 fish per day for three days – is. That's why we propose three consecutive days of 10 or more fish, Ross replied. Henriksen noted that the most recent adult steelhead counts at Bonneville are now linked to the TMT homepage.

Turner noted that the last three days of counting (ending on February 12) showed five, five and zero wild adult steelhead moving past Bonneville. Henriksen said that, in her opinion, the three-day, 10-fish-per-day criteria are somewhat awkward, because the counts often hover around the 10-fish-per-day level at this time of year. Wellschlager suggested that something farther outside the norm, in terms of passage numbers, might be more appropriate.

The discussion continued in this vein for some minutes. Henriksen reiterated that the Corps would like to see a steady rise in wild steelhead passage over two, three or four consecutive days before re-initiating attraction spill. Ross noted that there is always a delay in the counts, because the video is not being reviewed daily. Basically, the intent of these criteria is that we don't want to wait too long to provide spill once fish start moving upstream, Ross said. Ultimately, Henriksen said the Corps will resume attraction spill at the Bonneville adult ladders on March 1, unless wild steelhead counts increase appreciably for at least three consecutive days. Everyone will be watching the numbers, said Henriksen; if a surge in wild steelhead passage numbers is seen, then we'll certainly discuss that at TMT. Dave Statler observed that, without up-to-date information, such a discussion will lack meaning. I can't answer that, Henriksen replied; WDFW is doing the counting, and they're the ones who are controlling the timing of that information.

3. Salmon Managers Update on Adult Fish Counts In the Lower Snake River: Criteria for Decisions.

Wills said FPAC had also discussed this issue at its meeting yesterday, with the goal of developing criteria for determining when “few, if any” adult steelhead are arriving at Lower Granite for the purpose of starting and stopping the zero nighttime flow operation at the Lower Snake projects. The greatest consensus we were able to reach was on a sliding scale for total or wild adult steelhead arriving at Lower Granite over a three-day moving average, he said. This year’s total run was about 170,000 steelhead; the “few fish” criterion for the total steelhead column was set at 65 fish. The wild run for this year showed about 43,000-45,000 fish; the criterion for wild fish, given that total run size, would be a three-day period of 20 fish or less passing Lower Granite. In response to a question from Wellschlager, Wills agreed that these criteria are somewhat conservative, and err on the side of the fish.

Statler said the Nez Perce Tribe would have preferred to define “few, if any” as less than 10 adults passing Lower Granite, but they will not object to the sliding scale as proposed. Kiefer added that the goal of the sliding scale was to avoid discussion of what constitutes “few, if any” to facilitate in-season decision-making. In other words, he said, we didn’t want to have lengthy discussions of what “few, if any” means in the middle of the migration season. But we’re not in the migration season, Wellschlager observed. This is for the winter period, Wills clarified – again, we’re concerned about getting caught with substantial numbers of fish moving, and having zero nighttime flow in the river at that time.

Henriksen asked whether FPAC had discussed the biological impacts of zero nighttime flow on migrating adult steelhead. Wills said the salmon managers have not yet reached consensus on what the data show; Cindy’s question is a fair one, but those discussions are ongoing, he said. Russ Kiefer noted that, given that uncertainty and difference of opinion, these criteria are intended as a compromise that takes that uncertainty into account. If you want to re-open that discussion, Kiefer said, that’s a much larger debate, and we’re not going to resolve it at TMT today. Again, the intent of these criteria was to reach agreement within the region on what “few, if any” means, so that we don’t have to debate that in-season; I would personally prefer to keep the discussion focused on the “few, if any” criteria, Kiefer said. Statler said the Nez Perce Tribe agrees with IDFG’s position.

Henriksen said that, while these criteria are helpful, this is a multi-purpose system, and the Corps has other responsibilities in addition to fish passage. If you’re saying you would like to have a discussion of the biological impacts of zero nighttime flow in the Snake River during the winter, we’ll probably need to put that on a future TMT agenda, Silverberg observed. Wellschlager asked for some time to discuss these criteria with others at BPA, since today is the first time he has seen them. It was so agreed.

The group discussed the overall movement of adult steelhead through the system during the winter months. Ross noted that many steelhead are moving to tributaries below the Snake; there is no link to total steelhead counts at Bonneville and passage

upward through the Snake system. The bottom line is that we don't know precisely what triggers the start of the steelhead migration into the Snake in February or March, he said; that uncertainty was reflected in the development of these criteria. It was agreed to revisit the biological impacts of zero nighttime flow issue at a future TMT meeting.

In the interim, given the lack of consensus among the salmon managers on what the biological information tells us, we aren't likely to change our current operation of the system, Henriksen said. Statler observed that the agreement is that the Snake projects can be operated at zero nighttime flow as long as there are "few, if any" adult steelhead present; such a decision would run counter to that agreement. The salmon managers were asked to define "few, if any" steelhead, he said; we have done so. If you're just going to ignore the criteria we developed, said Kiefer, it would appear that FPAC wasted its time. He added that, last year, on one day in late February, 151 migrating adult steelhead were counted passing Little Goose Dam. If we wait until two weeks from now to reach agreement, and something similar happens in the interim, he said, then we really will have wasted our time.

Following a caucus break, Wellschlager said that, from BPA's perspective, there is still some doubt that the biological need to abandon the zero nighttime flow operation has been sufficiently demonstrated. What I'm wrestling with is the question of whether resuming nighttime flow has a quantifiable biological benefit, he said; also, to me, it hasn't been sufficiently demonstrated that the existing attraction flow is insufficient to allow adult migrants to pass the projects in the absence of nighttime flow. He said that, in the absence of that quantifiable information, BPA will plan to resume nighttime flow at the Snake projects on March 1.

Henriksen reiterated that today is the first time the action agencies have seen the criteria; this is excellent work, she said, and we do appreciate all of the hard work FPAC put into developing the criteria. One question I have, however, is how these criteria would translate into actual operations at the Lower Snake projects. The way we read the language from the Water Control Manual, she said, is that, *because* there are few if any fish passing Lower Granite during the winter months, based on previous studies, we can go to zero nighttime flow at the Lower Snake projects during the winter months. That interpretation was made with input from NOAA Fisheries, she added. Based on that understanding, she said, we do plan to continue the zero nighttime flow operation through the end of February – particularly since there is no consensus among the salmon managers about what the detrimental impacts of this operation to salmon actually are. That interpretation runs counter to the language in the 2004 Water Management Plan, Statler said. It sounds as though, regardless of our good-faith efforts, the Corps has decided to operate the way they want to operate, he said.

The 2004 Water Management Plan states "From December to February, 'zero' minimum project discharge is permitted on a limited basis. Under an agreement between the Corps of Engineers and the fisheries agencies, zero riverflow is allowed for water storage during low power demand periods (at night and on weekends) when there are few, if any, actively migrating anadromous fish present in the Snake River." The group devoted a few minutes of discussion to this language and the action agencies' interpretation of it; Statler observed that he is somewhat taken aback by the process

through which the Corps' interpretation has been made. Silverberg noted that anyone who wishes to elevate this issue to the Implementation Team is free to do so.

Wellschlager observed that, while today's discussion has focused on semantic interpretation of the language in the Water Management Plan, the real issue is the fact that the detrimental biological impacts of zero nighttime flow on adult steelhead migrants have not been demonstrated. Without that piece of evidence to support the criteria, he said, the interpretation of this language is a secondary issue. Wills said he will discuss this issue in more detail with the other salmon managers, and will inform Silverberg if a TMT conference call is needed on this issue prior to the next regularly-scheduled TMT meeting.

4. Spring Creek Update.

Wills said the Fish and Wildlife Service, the Corps and BPA have had a number of good discussions about how to craft a corner collector evaluation in conjunction with the Spring Creek Hatchery release in March. There is no consensus yet among these three groups about how to craft that evaluation, Wills said, but as soon as we reach agreement, we'll let the TMT know. In response to a question, Wills said the Spring Creek fish need to be released no earlier than March 4 and no later than March 12. He noted that he has coordinated with the Corps to ensure that the downstream gauges will be operating, and the necessary waiver from Oregon DEQ is in hand. Now we just need to craft the operation, he said.

5. Spring/Summer Update.

Scott Boyd asked the TMT to use the final 2003 WMP spring/summer update as a starting-point for the discussion of the 2004 spring/summer update; he said he hopes to have a rough first draft available for discussion at the March 3 TMT meeting. There is a lot of uncertainty about what we'll be doing, particularly with respect to spill, in 2004, so any input the other TMT participants may have would be helpful, he said. If anyone has comments on the 2003 spring/summer update, or on what should be in the 2004 update, please email them to me by Wednesday, February 25, Boyd said. He stressed, however, that the TMT will have a number of other opportunities to provide comments on the 2004 spring/summer update to the Water Management Plan.

6. Operations Update.

Henriksen began by saying that the February final water supply forecast is now available. It shows that for Grand Coulee, January-July, the forecast is now 59.8 MAF, 95% of average, a slight decline from the January final. At Lower Granite, April-July, the February final forecast shows a slight increase to 20.8 MAF, 97% of average. At The Dalles, for the April-August period, the new forecast shows 88.2 MAF, 95% of average, down slightly from the January final.

Based on that new forecast, she said, the Corps has prepared a new Q-adjust run, available via hot-link from today's TMT agenda. Mary Karen Scullion said both flow targets and reservoir elevation targets changed slightly as a result of the new forecast.

Grand Coulee is operating to maintain a Bonneville minimum flow of 125 Kcfs from February through April; that target is achieved in almost every year of the 59-year study. Meeting McNary’s flow targets (247.3 Kcfs spring, 200 Kcfs summer) looks likely in the spring and unlikely in the summer. With respect to the prospects for reservoir refill, she said, under the most recent Q-adjust run, Libby refill occurs in 29 out of 59 years; Hungry Horse refill in 44 of 59 years, Grand Coulee refill in 48 of 59 years and Dworshak refill in 39 of 59 years. The Q-adjust run also provides the following project-by-project flow projections during the spring and summer periods:

Period average flow (Kcfs)

	Feb 1-29	Mar 1-31	Apr 1-15	Apr 16-30	May 1-31	June 1-30	July 1-31	Aug 1-15	Aug 16-31
LIB	4.0	4.0	4.0	4.0	14.2	16.4	24.0	17.2	14.7
HGH	2.0	1.8	1.1	4.2	2.0	8.7	6.7	5.0	4.5
GCL	62.4	96.7	98.7	117.0	136.3	144.8	122.2	107.6	105.2
PRD	67.4	102.7	107.2	129.8	163.3	180.2	138.5	116.5	110.5
DWR	2.0	4.2	6.8	15.0	14.3	5.1	10.7	12.3	10.9
BRN	19.4	18.4	24.1	24.3	18.0	14.6	12.8	16.8	12.7
LWG	38.7	47.0	70.0	89.8	110.2	94.7	48.8	40.5	31.8
MCN	115.7	157.6	186.1	220.8	272.8	277.8	192.3	161.5	145.1
BON	175.8	202.8	245.3	285.1	291.0	201.4	169.0	151.3	

Henriksen emphasized that actual flows will vary, and will be set by TMT in response to the size and shape of the anticipated runoff at each of these projects.

Grand Coulee is currently at elevation 1263, said Tony Norris. In response to a question, Scullion said that, for the purpose of this run, she assumed a standard BiOp operation at Dworshak – elevation 1520 by August 31. Again, she said, that will be adjusted in season based on the actual size and shape of the 2004 runoff.

Hungry Horse is at 3516 and drafting to meet the Columbia Falls minimum flow, said Norris. Reclamation’s February final forecast for Hungry Horse, April-August, is 2.1 MAF, 104% of average. The February final forecast at Libby is 5.6 MAF, 90% of normal, Henriksen said. Therefore, the revised March 31 VARQ elevation at that project is 2435 feet; we’re currently at elevation 2400. Dworshak’s February final forecast is 2.6 MAF, 98% of average. The March 31 shifted flood control elevation at that project is 1533.2; the project is currently at 1511. Dworshak outflow has been increased to 8 Kcfs, but even so, assuming average inflow, we will have to release greater than minimum outflow to avoid overfilling the project, she said. We’re using some of the available operational flexibility now to avoid larger releases later in March, she said, during a period when we will have only two small units available. We don’t want to spill at Dworshak, she said. Couldn’t we release 8 Kcfs in March, rather than now, given that

we're currently well below the flood control elevation at Dworshak? Statler asked. No, because based on the ESP runs, we need to move that water out now, to avoid being above the flood control elevation at that project or having to spill in March, Henriksen replied.

Statler said the Nez Perce Tribe would prefer to see the action agencies use their existing operational flexibility to retain as much storage as possible in Dworshak for release in April and May, mimicking, to the greatest extent possible, a naturally-peaking hydrograph. CRITFC agrees with that position, said Kyle Martin. In response to a question, Julie Ammann said Dworshak will continue to release 8 Kcfs during through Monday, February 23; the operation will be re-evaluated at that point. In response to another question, Ammann said the 8 Kcfs is not currently being load-shaped; the project is releasing a straight 8 Kcfs through the day. That operation is preferable, from the point of view of the fishermen downstream from that project, Kiefer said.

7. Other.

Henriksen reminded the group that the comment period on the summer spill program has been extended to Friday, February 20.

8. Next TMT Meeting Date.

The next Technical Management Team meeting was set for Wednesday, March 3. Meeting summary prepared by Jeff Kuechle.

TMT Attendance List
February 18, 2005

Name	Affiliation
Donna Silverberg	Facilitation Team
Robin Harkless	Facilitation Team
Kyle Martin	CRITFC
Russ George	WMCI
Tim Heizenrater	PPM
Steve Kern	PNGC
Mike O'Bryant	CBB
Rudd Turner	COE
Julie Ammann	COE
Davis Wills	USFWS
John Wellschlager	BPA
Nic Lane	BPA

Chris Ross	NOAAF
Tony Norris	USBR
Bruce McKay	Consultant
Ruth Burris	PGE
Dave Ryan	PPM
David Benner	FPC
Scott Boyd	COE
Dan Bedbury	EWEB
Martin Hatscher	SCL
Dave Statler	NPT
Russ Kiefer	IDFG
Lance Elias	PPL
Tom Le	PSE