

**TECHNICAL MANAGEMENT TEAM
MEETING NOTES
November 15, 2001
CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE
PORTLAND, OREGON**

DRAFT

COLUMBIA RIVER REGIONAL FORUM

**TECHNICAL MANAGEMENT TEAM
November 15th, 2001**

These notes were taken by Cathy Hlebechuk, Corps of Engineers, in advance of receipt of the official notes.

The Bonneville flow operation for chum that started 0600 hours Tuesday, November 20 will continue. Some fisheries managers remain concerned about the effects of the lower elevation levels on chum spawning, but expressed a desire to wait for a full face-to-face review of the data on Tuesday, November 27 before formally objecting or raising the issue to IT.

The current Bonneville flow operation for chum is to make best efforts to stay within the 11' -11.2' tailwater range from 0600-1700. If higher discharges are needed, those will occur between 1700 - 0600 hours. Best efforts will be made to concentrate the higher discharges in the 1700-2400 time frame.

1. Greeting and Introductions

The November 15 Technical Management Team conference call, held at the Customs House in Portland, Oregon, was convened to discuss the current chum operation. The call chaired by Cathy Hlebechuk 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. Discussion of System Operational Request 2001-11.

Earlier today, the Corps received SOR 2001-11, covering tailwater elevations at Bonneville Dam to protect chum and chinook spawning at the Ives/Pierce Island complex. This SOR, supported by ODFW and the U.S. Fish and Wildlife Service, requests the following specific operations:

- Beginning immediately and continuing until further notice, provide a minimum instantaneous tailrace elevation of 12 feet at Bonneville Dam as specified in SOR 2001-10.

Ron Boyce went through the background and justification for this SOR, the full text of which is available via the TMT's Internet homepage. Please refer to this document for details of Boyce's presentation.

In general, Boyce noted that there are now significant numbers of adult chum on the Ives/Pierce Island spawning grounds; chum have also been observed at the spawning habitat in Hamilton Springs and Hardy Creek. The heavy precipitation of the past several weeks has resulted in rising tributary and mainstem flows, said Boyce; field personnel have also counted 31 fall chinook redds, as well as numerous live coho adults in the area.

The concern is this, said Boyce: with the heavy precipitation of the past few weeks, tributary discharge has brought Hamilton Creek flows up, which initiated spawning in that system. We're concerned that, as tributary flows subside, if we don't maintain mainstem streamflows during the weekend, we will be leaving fish high and dry and limiting the spawning habitat available to chum, which should be showing up in peak numbers any time. Basically, said Boyce, in ODFW's view, all of the triggers specifically identified in the 2000 BiOp have been met; these fish would benefit if we were to maintain a 12-foot minimum tailwater elevation at Bonneville.

Hlebechuk said she had spoken to the National Weather Service about current local flows between Grand Coulee and Bonneville; they told her they were only 13 Kcfs, which Hlebechuk characterized as surprisingly low. The Snake River is contributing an additional 17 Kcfs-18 Kcfs, Hlebechuk said; the NWS also said there are virtually no local flows between Priest Rapids and Grand Coulee.

Shane Scott said he had visited the Ives/Pierce Island spawning grounds with both ODFW and WDFW field personnel on Tuesday; on that day, they counted 12 green chum near Duncan Creek, another 12 chum west of Pierce Island and an estimated 26 in the lower part of Hamilton Creek. These fish were just starting to dig redds, Scott added. Your feeling, based on Tuesday's survey, is that a 10-foot tailwater elevation at Bonneville is adequate, at least for the time being? Hlebechuk asked. Correct, Scott replied – frankly, I'm a little surprised we're even having this conversation.

Boyce replied that Scott's conversation with ODFW and WDFW field personnel is being taken out of context. In what way? Scott asked. Because there are likely to be a lot more fish showing up on the spawning grounds every minute, even as we speak, Boyce replied. Boyce and Scott debated the relevance and validity of Scott's observations and discussions with ODFW and WDFW field personnel, with Boyce expressing his concern that tailwater elevations need to be maintained at a higher level until the chum spawning flows operation officially begins on November 19. Don Englund of the Fish and Wildlife Service added that the concern isn't so much with the small number of chum adults that are currently on the spawning grounds, but with the large numbers of

spawners that, according to historical run timing information, should be arriving at the Ives/Pierce Island spawning complex within a matter of day. We want to ensure that, as the very high flows we're currently seeing from Hamilton Creek begin to subside, that there is adequate spawning habitat available to support the bulk of the spawning, Englund said.

Englund noted that, on Wednesday, Hamilton Creek discharge was measured at 500 cfs, which equates to a four-foot stage change in that system. Boyce said the whole impetus behind this SOR is to obtain some surety that the current water level over the spawning grounds will be maintained as the peak spawner numbers begin to arrive. Our concern is the level of mainstem flow that would be required to keep the Hamilton Creek spawning grounds watered up at this level through emergence, Hlebechuk replied – what do you estimate that flow would need to be?

We're not talking about maintaining these flows through emergence, Dave Wills replied – we know conditions can change a month or two months down the road. The flows we need for incubation are much less than the flows we need for spawning, he said – right now, we're just talking about providing enough flow so that we can get eggs into the gravel over a broad range of habitat, so that we have some spawning in the mainstem and some in the tributaries. We want to spread the risk, in other words, Wills said.

The problem, said Robyn MacKay, is that we can't increase the flows at Ives Island without substantially increasing Vernita Bar flows. As the action agencies have said previously, we're not interested in doing that, and with the end of the Vernita Bar operation so close, we're not sure why we would need to. I thought we could increase Grand Coulee outflow to 80 Kcfs-90 Kcfs without exceeding the Vernita Bar target flow, said Boyce. I don't believe so, MacKay replied – I'm not sure why that number keeps creeping up.

Oregon doesn't want to violate the Vernita Bar agreement, said Boyce. However, if it is possible to achieve a 12-foot tailwater elevation at Bonneville without violating that agreement, would the action agencies have a problem with doing so? How much additional water would be required from Grand Coulee if the action agencies implement this SOR? asked Scott. I believe it would be an additional 20 Kcfs, Boyce replied. My understanding from Grant PUD is that the most they could do is a day-average of 85 Kcfs-90 Kcfs so that they would not be putting out more than 55 Kcfs during the day, said Hlebechuk. In response to another question from Scott, MacKay noted that the current day-average flow at Priest Rapids is about 70 Kcfs, down to 45 Kcfs over the weekend to allow for redd counting at Vernita Bar.

It sounds, then, as though we could bump Priest Rapids discharge up to 90 Kcfs and still stay within the 55 Kcfs Vernita Bar flow constraint, said Boyce. However, that still wouldn't get you to a 12-foot tailwater elevation at Bonneville, Scott Bettin observed. Obviously tides and tributary flows have an influence, said Hlebechuk, but if you look at the graph of Bonneville tailwater elevations vs. flows over the past couple of

years, a 12-foot tailwater elevation at Bonneville equates to a flow of 131 Kcfs, on average. At 125 Kcfs, the average tailwater depth is about 11.5 feet.

The group devoted several minutes of intense discussion to the question of whether or not to implement SOR 2001-11; in particular, to the issue of whether or not BPA is willing to increase Grand Coulee discharge in an effort to increase the tailwater elevation at Bonneville sooner than November 19. MacKay observed that, although there has been a substantial amount of rain on the west side of the Cascades, precipitation totals east of the Cascades, particularly in the Snake Basin, remain well below normal for this time of year.

Greg Lange from Grant PUD said his utility is willing to release up to 90 Kcfs from Priest Rapids, except for the 10-hour redd counting period on Sunday, November 18, during which Priest Rapids outflow cannot exceed 37 Kcfs. Are we sure the Vernita Bar operation is going to end on Sunday? Hlebechuk asked. I haven't heard anything to the contrary, Lange replied; every indication is that the redd counts have gone as expected. In response to a question from Boyce, Lang said the maximum average flow on Sunday will likely be about 60 Kcfs. Couldn't you pond a higher volume on Sunday while the redd-counting operation is going on, then release that water Sunday night? one participant asked. We could, but given current mild temperatures, we won't have the load, Lang replied, and Grant is unwilling to spill that additional water.

Boyce noted that another reason for the timing of this SOR is the fact that chinook spawners have also been arriving in large numbers below Bonneville Dam – the most recent count was 31 redds and 99 live adult chinook. The chinook don't spawn in the creeks, he said; their preferred spawning grounds are in the island area. That habitat is only accessible under the higher flows we're advocating in this SOR, Boyce said.

What I'm hearing is that it should be possible to increase Priest Rapids outflow by approximately 20 Kcfs except on Sunday, when flows will have to be lower unless we can figure out a marketing strategy that will allow us to pond, then release a higher volume of water on Sunday night, said Boyce. You would need to pick up an additional 2,000 MW of load to make that work, Bettin replied – that simply isn't feasible on a Sunday night.

After a few minutes of discussion, Bettin asked Wagner whether NMFS would be opposed to the action agencies' implementing the chum operation, in the form of an 11.2-foot minimum tailwater elevation at Bonneville, on November 20. NMFS is comfortable with starting with an 11.2-foot tailwater elevation at Bonneville, monitoring the situation and making adjustments as necessary, Wagner replied. As the BiOp states, the chum spawning operation will begin upon the completion of the Vernita Bar operation, he said; the goal is to provide a level tailwater elevation that approximates the elevation that would be provided under a Bonneville flow of 125 Kcfs.

David Wills said he is very uncomfortable with an 11.2-foot minimum tailwater elevation at Bonneville; to me, he said, 11.5 to 12 feet was minimal for chum spawning,

and 11.2 feet is too low. I would ask that the 11.2-foot elevation be elevated to the IT before it is implemented, Wills said. What if the 11.2-foot tailwater minimum turns out to be equivalent to a flow of 125 Kcfs at Bonneville, said Wagner – would that be acceptable, in your view? I would like to meet at least the BiOp minimum, Wills replied – 11.2 feet is simply too low. Oregon will not accept anything less than the 125 Kcfs specified in the BiOp, said Boyce.

It sounds to me as if what has been agreed to is, upon completion of the Vernita Bar operation, the action agencies are willing to provide a flow of 125 Kcfs at Bonneville, which is expected to result in a tailwater elevation of between 11.2 and 11.5 feet, Silverberg said. Haven't I just heard both ODFW and USFWS say they are willing to live with the BiOp minimum of 125 Kcfs at Bonneville, although both would clearly prefer a higher tailwater elevation? The Fish and Wildlife Service would prefer to manage to a stable 11.5-foot tailwater elevation below Bonneville, rather than to a specific flow level, Englund said.

After a few minutes of additional discussion, Bettin said the action agencies are willing to implement an 11.5-foot minimum tailwater elevation at Bonneville beginning at 6 a.m. on November 20; the actual elevation will vary somewhat. Bettin explained that, from the standpoint of operational reality, it is virtually impossible to hit an exact tailwater elevation of 11.5 feet hour after hour, hence the need for an operating range.

Given the lateness of the hour, it was agreed to end the discussion here and take this topic up again at the next TMT meeting on November 28. If any major changes in system conditions impact this operation in the interim, it was agreed to re-convene via conference call. Meeting notes prepared by Jeff Kuechle, BPA contractor.