WATER QUALITY TEAM MEETING NOTES

October 8, 2002
National Marine Fisheries Service Offices
Portland, Oregon

1.Introductions and Review of the Agenda.

Mark Schneider of NMFS, WQT co-chair, welcomed everyone to the meeting, held October 8 at the National Marine Fisheries Service's offices n Portland, Oregon. The meeting was facilitated by Richard Forester. The meeting agenda and a list of attendees are attached as Enclosures A and B. Please note that some of the enclosures referenced in these meeting notes may be too lengthy to routinely attach to the minutes; please contact Kathy Ceballos (503/230-5420) to obtain copies.

2. Chief Joseph/Grand Coulee Power Generation Swap for Spill.

Marian Valentine led this presentation, noting that the Chief Joseph/Grand Coulee power-for-spill issue is truly regional in scope. For that reason, said Valentine, there has been a request that we form an ad hoc committee to evaluate the issue. You will recall that the June 2000 report on dissolved gas abatement at Chief Joseph concluded that flow deflector installation at Chief Joseph, together with joint operation of Grand Coulee and Chief Joseph Dams to transfer spill to Chief Joseph and generation to Grand Coulee, would provide the greatest TDG reduction benefit in the Mid-Columbia. This alternative would also have the benefit of increasing generation flow capacity at Grand Coulee, increasing reliance on the less-saturating spillway at Chief Joseph, and reducing the cost of effective gas abatement over other options considered. She added that the Chief Joseph/Grand Coulee swap is also an interim measure that can be implemented to improve water quality now, while funding for the Chief Joseph flow deflectors is still up in the air. Valentine emphasized, however, that water quality improvements would be limited to the 50-mile reach between Chief Joseph and Grand Coulee only.

Valentine moved to a series of overhead slides, which covered the following major topics:

- An overview of historical spill at Chief Joseph and Grand Coulee
- An example of mixed-river TDG
- Output of modeled alternatives – TDG below Grand Coulee Dam (graph)

What you're saying is that even without the installation of flow deflectors at Chief Joseph, this operational alternative could provide a dissolved gas benefit, because the water in the Chief Joseph forebay would be lower in gas, and would dilute the gas generated by spill at Chief Joseph? Schneider asked. Correct, Valentine replied. She added that, as Corps research has shown, some level of spill through the drum gates at Grand Coulee can actually de-gas the river -- another piece of the puzzle of how to implement this alternative.

Valentine spent a few minutes going through a graph showing actual hourly spill and flow at Chief Joseph, the percent of time spill flow is exceeded, and what 1997 hourly spill would have been with the Chief Joseph/Grand Coulee swap in place. Valentine provided the same information for TDG below Grand Coulee with and without the swap, noting that, with the swap in place, 1997 river conditions would have resulted in an exceedance of the 120% TDG standard only about 15% of the time, compared to the 50% of the time it was exceeded without the swap in place. Obviously, said Valentine, if we can get flow deflectors installed at Chief Joseph in addition to this operational swap, that alternative will provide the greatest TDG reduction benefit in the Mid-Columbia.

Valentine then distributed Enclosure C, a proposed scope of work for the ad hoc committee to examine the generation/spill swap for Grand Coulee and Chief Joseph dams in the absence of flow deflectors. She noted that this document represents her attempt to outline the specific tasks this group would be asked to undertake:

- Determine the water quality benefit of the spill/generation swap
- Determine measurement points for comparing TDG
- Determine how to apply the TDG standard at Chief Joseph
- Determine system capacity for implementing this swap
- Determine the conditions under which this swap would be implemented
- Other issues from the WQT

Valentine added that she is proposing that the ad hoc committee include representatives from Reclamation, the Corps, NMFS, WDOE, the Colville Tribes, the Fish and Wildlife Service and BPA. She asked Chris Maynard whether WDOE feels Task 1 would be necessary; Maynard replied that, in his agency's view, it would be acceptable to rely on historic data and analysis, rather than revisiting this question.

Another participant asked what benefit the WQT sees in having Washington Department of Ecology involved in the ad hoc group. We have a regionally-negotiated spill priority list, Valentine replied; at Chief Joseph and Grand Coulee, that spill priority list would look very different if we do the spill/generation swap. If we do transfer all spill to Chief Joseph, she said, we might see TDG levels at the fixed monitoring site in the 130%-140% range during certain times of the year. How would WDOE view that? Valentine asked – would they see the Corps as way out of compliance, or as doing a good thing because we're reducing gas levels above Chief Joseph? Aren't gas levels already high below Chief Joseph? the WDOE participant asked. Yes, but not that high, Valentine replied. You're already out of compliance with the 110% standard,

the WDOE participant replied. Again, she asked, what do you see as WDOE's role in that group – to offer technical assistance, or to provide a waiver for the exceedance of the 110% standard? In my view, your role would be to provide regulatory guidance, Valentine replied.

Schneider said he will have further discussion with both Valentine and the appropriate parties within WDOE about this topic between now and the next WQT meeting. Jim Irish said for the record that when this ad hoc group is formed, he will be the BPA representative.

3. Corbett and Washougal/Camas TDG Monitoring Comparison/Alternate Forebay Monitoring Location.

Schneider said his goal is for the WQT to reach consensus on a recommendation regarding these monitoring alternatives as soon as possible. Joe Carroll was the first presenter; he said his subject matter today would be data from a geographic area ranging from Camas to John Day Dam, relating to BiOp RPA 132. Among his main topic areas:

- The original purpose of the Corps' fixed monitoring system
- The current fixed monitoring system array
- The current water quality monitoring layout at John Day
- The alternative monitoring layout at John Day
- Results from the 2002 water quality monitoring season

Carroll also provided the following conclusions with respect to the current fixed monitoring situation at John Day:

- On some days the John Day forebay fixed monitoring station is likely not representative of what may be needed for some monitoring purposes. That is not to say that the John Day forebay station is not providing important information, said Carroll; in particular, it may be providing an accurate measurement of temperature and TDG conditions in the fishway.

Moving on, Carroll described the current monitoring network at The Dalles. He went through some of the data from the 2002 monitoring season at this project, then went through the same information from Bonneville Dam. In general, he said, it appears that the forebay monitoring stations at both projects are representative. Carroll also provided 2002 data from the Bonneville tailwater.

In conclusion, Carroll offered the following recommendations:

- Based on our stated purposes in establishing these stations, relocating the Camas/Washougal station offers marginal benefit from relocation of the current fixed monitoring station; the Corps recommends maintaining the current station at Camas, with additional monitoring at the Corbett site.
- Warrendale is currently inconsistent with other monitoring sites. The Corps recommends its retirement in favor of another tailwater site.

- Bonneville forebay: no change.
- The Dalles tailwater: move closer to a mixed location.
- John Day: continue the current sampling location, recognizing that some elevated readings may result which will need to be interpolated. Provide additional monitoring at the alternative sites, and continue thermal profiling and logging.

The question to the WQT is, what do we do with this list of recommendations? said Schneider. Unfortunately, we probably don't have time to decide that today. He suggested that the group table this decision for now, and take it up again at the next WQT meeting. Dick Cassidy observed that Carroll's recommendations are being made to the Corps' Portland District, so any WQT comments should also be made to COE Portland. After a few minutes of discussion, it was agreed that the WQT will come to its November meeting prepared to make a final recommendation to COE Portland District on this issue.

4. Decision Criteria and Spill Management.

Dick Cassidy distributed a handout titled "Corps Spill Change Guidance for Columbia/Snake" (Enclosure D). He noted that this is the guide the Corps used on a daily basis during the 2002 spill season when changes in spill were necessary. He spent a few minutes going through the contents of this document; please refer to Enclosure D for details. Cassidy noted that the items on this list are essentially the 14 reasons why it is not always possible for the Corps to spill exactly up to the 115%/120% TDG standards; they also explain why exceedances of these standards occur on a regular basis. He asked the WQT to review this document, with an eye toward discussing them further at the next WQT meeting,

With respect to Item 4 on this list, Carroll said he was under the impression that the final project-by-project progressions or spill plots are now available. I certainly looked for them, but wasn't successful in finding them, Cassidy replied – to me, that was the single most-important product that did not make it into the final DGAS report. Schneider suggested that it may be useful for him and Cassidy to discuss this document with the state water quality agencies.

5. Bonneville Spill – 2002 Performance After Deflector Construction.

Steve Rainey began this agenda item by distributing Enclosure E, a memo outlining NMFS' conclusions regarding Bonneville spill performance following flow deflector construction, as well as emerging TDG trends from the John Day forebay to camas fixed monitoring stations. He addressed the following major topic areas:

- What is the new gas cap relative to the dominant Camas gauge?
- How does performance this year compare to prior spillway configuration (12 deflectors)?
- Why is the cap so variable?
- Is there a need to lower the center 12 deflectors at Bonneville?
- What are the implications of this information in terms of voluntary spill in the Lower Columbia River?
- What can be done to gain greater RCC responsiveness in managing Bonneville spill to

optimize both TDG and fish survival needs?

Please refer to Enclosure E for the full details of Rainey's presentation.

What NMFS has advocated for, and will pursue through the FFDRWG process, is that the wind be factored into the parameters the RCC has to work with, Rainey said. We would like to see this model funded as a line-item in Bonneville's Fish and Wildlifre program, he added.

6. Removable Spillway Weir.

[NOTE – the tape was inaudible during this final agenda item]

7. Water Quality Team Review of Research Proposals.

At Schneider's suggestion, it was agreed that any comments on the research proposals will be submitted to him following today's meeting.

8. Next WQT Meeting Date.

The next Water Quality Team meeting was set for Tuesday, November 12 from 1:30 to 4:30 p.m. Meeting summary prepared by Jeff Kuechle, BPA contractor.