

WATER QUALITY TEAM MEETING NOTES

**March 14, 2000
National Marine Fisheries Service Offices
Portland, Oregon**

I. Introductions and Review of the Agenda.

Mark Schneider of NMFS and Mary Lou Soscia of EPA welcomed everyone to the meeting, held March 14 at the Oregon Department of Environmental Quality offices in Portland, Oregon. The meeting was facilitated by Jacqueline Abel, who led a round of introductions and a review of the agenda. The group spent a few minutes reviewing the minutes from the last WQT meeting, making a few minor revisions.

II. Updates.

A. Spring Creek and John Day Dam and Oregon DEQ Waiver. Since the last WQT meeting, said Russell Harding, the Oregon Environmental Quality Commission met and approved TDG waivers for the 2000 Spring Creek Hatchery release, March 9-March 19, and the John Day Dam spill test. The former is a standard 120%/115% TDG waiver, similar to what we've seen in each of the past several years, Harding said; the latter is a somewhat more generous waiver, designed to give the Corps maximum flexibility in order to get meaningful results from this year's spill test.

Harding noted that the Commission will take up the systemwide spill waiver on March 31, at its meeting in The Dalles. A public hearing on this topic is scheduled for March 20.

B. Abatement Planning with Washington State. Chris Maynard of WDOE said that, as the WQT is aware, Washington's waiver process is somewhat different from Oregon's; the approvals for the Spring Creek and John Day spill operations were conveyed in the form of a letter from the WDOE managers. On another front, he said, WDOE is reviewing the 2000 monitoring and abatement plans at the PUD projects and the federal dams; we will review and comment on those plans before issuing a final letter approving or amending those plans. When might we expect that letter to appear? Schneider asked. By the end of this month, Maynard replied.

C. Water Quality Team 2000 Workplan. There hasn't been any change in the status of this document since the last time we met, Schneider said, because I haven't received any further input. At this point, he said, I think we should consider it a working document, and

start using it. The one near-term action item in the workplan that we should be aware of is the WQT's review of the Corps' 2000 Water Management Plan, said Schneider; to be honest, I haven't discussed that plan recently with Cindy Henriksen, but the last time I talked to her, she said we might expect to see the draft plan within the next two weeks. Rudd Turner said he had brought copies of the most recent draft of the 2000 Water Management Plan, dated March 8, to today's meeting; this document is Enclosure C. This will at least give you something to start gnawing on, he said, but do bear in mind that it will be substantially updated as further information is developed and further TMT discussion takes place.

D. Assessment of Relative Risks of Spill, Updating the Dissolved Gas Risk

Assessment of 1995. This is mainly an information item, said Schneider; some of you may recall that there was a document called the 1995 Dissolved Gas Risk Assessment, produced mainly by the Fish Passage Center in conjunction with the tribes. Essentially, it was a review of the literature available at that time on dissolved gas and biological effects, as well as a quantitative estimate of the risks involved in spill versus other routes of passage. I am now attempting to update this document, he said, gathering together all of the relevant literature and reports in progress, comparing that with specific items in the 1995 paper, and assessing what we've learned about the biological effects of spill and TDG over the past five years. This document will be in support of, if not actually attached to, the 2000 FCRPS Biological Opinion, Schneider said; if anyone has information on the topics I've listed, please give me a call.

III. Report from the Lower Snake River Temperature Monitoring Program Subgroup.

Rich Domingue described his recent presentation to the Implementation Team on the Lower Snake River temperature monitoring proposal developed by the WQT's temperature monitoring program subgroup; he said the IT wanted to clearly understand the position of the Technical Management Team and the Water Quality Team on the proposal. Basically, my answer was that the WQT had suggested that I take the proposal to the IT for their approval, said Domingue, but that there had been no effort, by the WQT itself, to express its approval or disapproval of the proposal. Also, he said, at that point, I hadn't taken the proposal to the TMT or the salmon managers for their approval; what the IT requested is that, before I bring the proposal back to them, I first seek TMT and WQT endorsement.

Since then, said Domingue, I have sent the proposal to FPAC; the response I received was that there is virtually no support for the proposal. To date, I have received comments from three individuals – John Yearsley, Jim Peterson and Stu McKenzie; frankly, said Domingue, I'm a little disappointed that more people haven't provided comments. The reason I'm here today, he said, is that, given the lack of support from FPAC, unless the WQT feels that there is some reason to move forward with this proposal, my suggestion is that we tell IT that the proposal, as currently formulated, is not what the WQT wants to see done.

After a few minutes of discussion, Schneider said he will take the proposal to the March 30 TMT meeting to see if there is any interest, in that body, in pushing for

implementation of the temperature monitoring proposal in 2000. If there is not, he said, the WQT co-chairs will notify the IT that there isn't sufficient support among the FPAC, TMT or WQT memberships to move forward with the proposal, and no further work is needed at this time. Basically, he said, we need to formally transmit an answer to the IT request, so that we can put this assignment to rest. It was agreed that the WQT co-chairs will also draft a letter to the IT, expressing the fact that there is no WQT agreement on the proposal as currently drafted, and that no further IT action is needed at this time.

Tom Lorz said that, while CRITFC has some concerns about the way the proposal is currently written, they still have some interest in the idea of additional Snake River temperature monitoring. He said he will be presenting a monitoring verification plan to FPAC at their March 31 meeting; if the salmon managers are still unwilling to support it, he said, the project will pretty much be dead, at that point.

Schneider expressed his thanks for all the hard work the WQT subgroup put in on the development of this monitoring proposal; I think you did a fine job, he said, and it's unfortunate that it couldn't go forward. Maybe the lesson to be learned here is that agreement as to the needs and priorities for these kinds of projects has to come first, Margaret Filardo observed.

IV. 2000 Biological Opinion Clean Water Act Discussions.

Soscia said the federal agencies are still discussing the package of information on water quality that will be either included in or attached to the 2000 FCRPS Biological Opinion; it will include an overview piece describing the water quality plan, a piece describing immediate near-term operations for temperature at Dworshak and Brownlee; a piece describing long-term temperature tools, including the one-dimensional and a possible two-dimensional temperature model; a piece that addresses the list of structural projects currently underway (the "A" list), as well as those on the table for further consideration (the "B" list); a piece on the decision process for the "B" list; a monitoring and evaluation framework and a risk assessment framework.

The BiOp schedule has changed, Soscia continued; it now calls for the distribution of a draft Biological Opinion to the co-managers on May 22. That means we need to produce an internal draft of the water quality information package by April 7, she said; we are discussing the possibility of coordinating a meeting with the states and tribes to talk about the Biological Opinion some time in April. We are also trying to develop a Memorandum of Agreement among the three states on the TMDL for the mainstem, the schedule for this effort, the resource responsibilities associated with the TMDL development process and the roles of the various entities involved.

Last week, we met with the Columbia River tribes in Spokane to talk about the mainstem TMDL, as well as the other work we're doing on the Columbia, in an effort to get the tribes involved in this work, Soscia said. There was good attendance from the upriver

tribes, but the only lower river tribe that attended was the Nez Perce. We will continue to work with the tribes to ensure that they have an opportunity to be fully involved in this effort, she said.

V. Report on Status of 2000 Dworshak Operations Agreement.

Soscia said there was a meeting last Friday to discuss Dworshak operations; this is a critical component of the Biological Opinion, because of the annual controversy over how to balance decisions on flow, dissolved gas and temperature. This year, we wanted to take a more proactive approach, and develop some agreement before the season begins on Dworshak operations, Soscia said; the State of Idaho and the Nez Perce Tribe have been working, over the past several months, to craft a position which they put out at last Friday's meeting.

Basically, the proposal on the table from Idaho and the tribe is that the conditions for the dissolved gas waiver will include the following, Soscia said: that Dworshak be at full pool (elevation 1600) by June 30; that full pool be maintained through July 31; that Dworshak be drafted no lower than elevation 1537 on August 31, leaving about 200 KAF to meet augmentation needs after August 31. All releases from Dworshak will be for the purposes of anadromous fish migration and water temperature control, and supported by scientifically-defensible water quality and fish migration studies and data. The studies should show that releases will achieve their purposes, Soscia said; releases from Dworshak will not interfere with the rearing and migration of Clearwater fall chinook smolts. Specific flow augmentation releases will be authorized jointly, in writing, by the designated representatives of the tribe and the state within this framework, after demonstration that there is scientifically-defensible support for the release. Releases will be approved only within the written concurrence of those parties. The Corps will maintain their dissolved gas and temperature monitoring network, including monitoring stations at Dworshak, Peck and Lewiston; these stations will be operated and maintained on a continuous basis during the period of the short-term activity exception, except that the Dworshak station will be operated and maintained year-'round.

There are exceptions to these operations, which may be granted under unusual circumstances, said Soscia; these exceptions must be made in writing to the tribe and the state, and may result in a meeting in Lewiston. Scientific data supporting the need for an exception will be attached to the written request, and a joint decision regarding the request for an exception will be issued in writing by the state and tribe. System operational requests for the use of Dworshak water for flow augmentation and temperature control will not be presented to the TMT until after the request for an exception is approved and issued by the designated state and tribal representative. Exceptions will be approved only with the written concurrence of both parties, she said.

NMFS will be responding to this proposal at a meeting on March 22, Soscia said; obviously, there are some problematic issues here, particularly the stipulation about the TMT's ability to request Dworshak flows. Basically, she said, the Nez Perce and the State of Idaho are expecting a counterproposal from NMFS on this operations plan, and I will be working

with NMFS on that counterproposal.

One of the things we've done is use the EPA model to run 12 different scenarios, to look at what kind of flows we might get under the operations prescribed in this plan, Soscia said. Personally, she said, I'm interested in something that strikes a balance between the needs of juvenile migrants and adult migrants. If anyone is interested in looking at that model information, she said, I will be happy to provide it.

The group devoted a few minutes of discussion to the differences between, and possible integration of, the Corps ColTemp and the EPA temperature model, as well as the feasibility of re-running the 12 scenarios on both models, using the same base-year assumptions. Could we at least get the hard data from the Corps model runs from Nancy Yun? Tom Lorz asked. Not yet, Turner replied, but I'll look into it. Can you report back to Tom after you have that internal discussion? Abel asked. I can do that, Turner replied.

In response to a question, Turner said there are some substantive legal, authoritative and operational issues associated with the Idaho/Nez Perce proposal for Dworshak operations; in general, I think it's fair to say that we will be working this one for awhile, he said. Soscia said she will provide a further update on this topic at the April WQT meeting.

VI. Report on Federal Caucus Public Meetings.

With respect to the Federal Caucus public meeting process, said Soscia, there were 15 meetings in all, the last of which was held last Thursday in Petersburg, Alaska. The comment period for the All-H paper ends on March 15; the comment period for the draft EIS ends on March 31. I attended two meetings last week, in Idaho Falls and Twin Falls, Soscia said; there were 500 people at the Idaho Falls meeting, and that meeting went until 12:30 a.m. Literally thousands of comments have been received so far; we're now in the process of synthesizing those comments, and figuring out how the All-H paper should be revised in response to those comments, she said.

VII. Report on Tribal/EPA Clean Water Act Meetings.

This topic was addressed under Agenda Item IV, above.

VIII. Report on Developments and IT Actions Regarding COE Dissolved Gas Monitoring Plan.

Schneider distributed Enclosure D, a summary of the negotiated edits with the Corps to clarify the IT language and develop a process for emergencies. By way of background, he said, the IT, at its February meeting, discussed the two options we developed for the response to an dissolved gas monitoring emergency; those two options, as you will recall, were that, in the event of a monitoring emergency, under Option 1, the Corps would first notify the TMT;

under Option 2, the Corps would first notify the Water Quality Team. You will further recall that the WQT strongly advocated Option 1, said Schneider, and that, if the TMT needed water quality assistance, they would come to us. Ultimately, after a lengthy discussion, the IT came up with the language at the bottom half of [Enclosure D], Schneider said; what it says, in essence, is that, in the event of an emergency, notify both the TMT and the WQT.

Schneider said Cindy Henriksen had called him after that IT meeting, and had pointed out that there were some problems with the practical application of the IT's language. We discussed this issue at length, he said; the final outcome of those discussions is the paragraph at the top of this handout:

“If there is uncertainty with an abnormal reading at a gas monitoring station that persists for more than 48 hours, the COE will notify TMT and WQT chairs as soon as possible via telephone and email. If the COE plans to change fish passage operations because of the uncertainty, it should notify both the TMT members and the WQT chairs of the proposed change. TMT members will whether or not a meeting or conference call is needed and advise the COE of this need. The COE will then convene a TMT meeting. If the WQT chairs determine that a water quality issue exists, the issue will be framed by the WQT, and forwarded from the chairs of the WQT to the chair of TMT or IT, as appropriate. Each state's fishery and water quality agencies will work together prior to any TMT meeting on this issue to balance and assure consistency of the proposed actions with fishery management requirements and state water quality standards.”

Schneider noted that the last sentence of this paragraph needs to be amended to include the tribes, as well as the state fishery and water quality agencies. Rudd Turner said that, while he probably needs to check back with Corps management to be sure that they officially endorse this procedure, his sense is that this language is workable. Schneider said he had run this paragraph by Jim Athearn earlier this morning, and that Athearn said he had no problem with it.

I guess what I'm suggesting is that we have now arrived at some workable language, said Schneider; therefore, I believe that our work is done on this issue, and we can put it to rest.

Several WQT members raised concerns about this language, particularly on the lack of direct contact to the state water quality agencies. Ultimately, Schneider proposed that, rather than trying to change this language yet again, a separate WQT process be created, under which he, as WQT co-chair, would convene a WQT subgroup, including representatives from the state water quality agencies and tribes, in the event that a monitoring emergency occurs. We can add this language to the WQT Guidelines, he said, to be used whenever a situation requires a quick response. It was agreed that adding such language to the WQT Guidelines would answer the concerns raised at today's meeting. In response to a concern raised by Chuck Rice of EPA, Abel suggested that the WQT revisit the appointment of the specific

members of the WQT emergency team, as well as who will draft the additional language for the TMT Guidelines, once Soscia (who had stepped away to attend another meeting) returned.

When Soscia returned, the group spent a few minutes debating which entities need to be informed when monitoring-related emergencies occur; Soscia argued that water quality agencies need to be specifically referenced in the above language. She suggested that the first sentence be amended to read "...the COE will notify TMT members, WQT chairs and the water quality agencies as soon as possible." Turner said he is concerned about the logistics of such a change; if the Corps is going to be expected to notify all of the state and tribal water quality agencies in the region, as well as all of the TMT members and the WQT chairs, that's a very long list of folks to contact, he said. Actually, I'm just suggesting that the Corps contact the state water quality agencies in Oregon, Washington and Idaho, Soscia said.

Harding and Chris Maynard said they don't care who notifies them of such emergencies, as long as they're in the loop. Schneider reiterated his suggestion that the above language not be changed, but that the WQT designate an emergency response subgroup, to be notified by the WQT co-chairs when these types of emergency situations occur. After a few minutes of discussion, no WQT disagreements were raised to Schneider's suggestion; it was agreed that the WQT emergency subgroup membership will include Harding, Maynard and Jim Bellatty from Idaho DEQ, as well as Soscia, Schneider, Patti Stone and any other tribal representatives on the WQT, and Margaret Filardo of the Fish Passage Center.

It was agreed that Schneider and Abel will work together to draft a sentence or two for the WQT Guidelines. In response to a suggestion from Harding, Schneider said he will provide a report on this topic at the next IT meeting.

IX. Report on John Day Dam Spill Test.

Joe Carroll reported that the John Day Dam spill test occurred February 12 through the 19th; the goal of this test was to evaluate the effectiveness of the new flow deflectors at that project, and to study near-field gas levels during the test. We operated the full spillway – bays 2 through 19, uniformly, at three spill levels – 6 Kcfs, 8 Kcfs and 10 Kcfs, Carroll said. That means that, during the test, total spill at the project was 108 Kcfs, 144 Kcfs and 180 Kcfs. In addition, said Carroll, we operated those treatments at powerhouse flows of 50 Kcfs, 100 Kcfs and 150 Kcfs; we also fluctuated The Dalles forebay elevation between 155 feet and 160 feet.

The purpose of all of these arrangements was to study spill at those deflected bays under a range of tailwater elevations, Carroll said – in other words, to look at gas production under a range of deflector submergence depths and tailwater elevations. There were 34 logging instruments in place during the test, providing data on total dissolved gas, dissolved oxygen and temperature.

Over a period of eight days, we ran 16 different treatments, Carroll continued; in addition to those treatments that looked at the impact of tailwater elevation on dissolved gas

production, we also operated Bay 1, which is not deflected, in combination with the other four bays on the north end of the project, to look at gas production in the non-deflected bay. The third objective of the test was to evaluate entrained powerhouse water, and its effects on dissolved gas downstream.

What we saw, in terms of test results, pretty much confirmed what we've seen at John Day in the past, said Carroll – gas levels were highest up close to the stilling basin, and TDG levels were highest, not surprisingly, at the highest levels of spill and tailwater submergence. We saw near-field gas levels as high as 145% during the test, Carroll said; those peaks were seen near the middle of the spillway, at the deepest section. Generally, TDG levels were lower at the shallower north end of the spillway; gas levels there peaked at around 135%.

With respect to the data from the transects nearest the current fixed monitoring station site, Carroll said, during the test, we never exceeded 120% TDG for longer than an hour. Peak TDG concentrations at that site, 4,000 feet below the dam, were shifted away from the shore, toward the middle of the spill plume; they were only a few percentage points higher than the readings at the fixed monitoring station.

In general, said Carroll, we did see a strong relationship between tailwater elevation and deflector submergence and gas production; we're still trying to sort out which factor – tailwater depth, stilling basin depth or depth of deflector submergence – is most important. The non-deflected bay appeared to be producing somewhat higher gas levels than the deflected bays, Carroll said; ultimately, we hope to be able to use this information to develop an assessment of the need for end-bay flow deflectors at John Day. With respect to the third objective, he said, we were able to do flow field management so that at least one treatment of powerhouse water was quantifiable; at least under the treatment conditions (low tailrace elevation, low powerhouse discharge) it appeared that all of the powerhouse water was being entrained by the spill jets.

In general, said Carroll, we saw the lowest gas production when tailrace elevations were lowest – in other words, there was a direct relationship between tailrace elevation and gas production. He added that a draft report on the 2000 John Day spill test will be available from the Corps some time toward the end of May.

X. WQT Comments on TMT's 2000 Draft Water Management Plan.

Turner drew the WQT's attention to the March 8 draft of the 2000 Water Management Plan (Enclosure C), as well as a handout showing the various links on the TMT website (<http://www.nwd-wc.usace.army.mil/TMT/welcome.html>). If you click on "Meeting Agendas/Minutes" for 2000, said Turner, under "Supporting Documents," you will see a link to the 2000 Water Management Plan; this is the best place to find the current draft of this document.

The 2000 Water Management Plan is still a work in progress, said Turner, and is under

development by the TMT. He asked the WQT to review the current draft of the plan, and to provide any comments they may have as soon as possible. Schneider asked that any comments the WQT membership may have be provided to him by March 21, so that he and Russell Harding can consolidate and forward them to Cindy Henriksen.

XI. Transboundary Gas Group Draft Framework Document.

Dave Zimmer noted that one of the primary goals of the Transboundary Gas Group, since its formation in 1999, has been the development of a systemwide gas abatement study plan. About six months ago, he said, Mark Schneider approached Monte McClendon and I to ask if we would help the TGG put together the framework for this plan, to help guide coordination of gas management activities, and to help develop some sort of systemwide evaluation approach. Basically, said Zimmer, what Monte and I have done is bring together the work products created by the various TGG subgroups into a plan that could serve as a roadmap for moving ahead with systemwide planning and evaluation, and as a focal point for securing a group of funds to get on with that work.

Zimmer spent a few minutes going through the contents of the draft framework document, then noted that Eric Stiles will be presenting it at the March 16 TGG meeting in Spokane. Please contact Schneider to obtain a copy of this document. The bottom line, said Zimmer, is that we estimate that it would cost approximately \$400,000-\$500,000 over two years to accomplish the Phase I data gathering, planning and modeling work called for in the draft framework, in addition to the in-kind services that would be required from the project owners.

XII. Next WQT Meeting Date.

The next meeting of the Water Quality Team was set for Tuesday, April 11, from 1 p.m. to 4 p.m. at NMFS' Portland offices (the meeting was subsequently canceled). Meeting notes prepared by Jeff Kuechle, BPA contractor.