WATER QUALITY TEAM MEETING NOTES

May 21, 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 May 21 at the National Marine Fisheries Service's offices in 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. Database Development.

Bruce Crawford from the State of Washington's Interagency Committee for Outdoor Recreation led this presentation. He said that, two years ago, the Washington State legislature passed a bill requiring the state to develop a comprehensive strategy for monitoring watershed health for salmon recovery. The report on the strategy and action plan has to be submitted to the legislature and the Governor's office by December 1, 2002, he explained.

It's a very large effort, which goes well beyond the ESA and recovering salmon, Crawford said. Working from a series of overheads, he then provided a detailed presentation on this effort, copies of which can be obtained by calling Crawford at 360/902-2956. Crawford touched on the following main topic areas:

- Strategy highlights
- Policy issues
- Strategy components
- Status (baseline)
- Trend monitoring
- Status and Trends
- Interactions with existing monitoring
- Monitoring gaps (water)
- Monitoring gaps (salmon)
- Monitoring gaps (habitat)

- Comprehensive strategy (water)
- Comprehensive strategy (salmon)
- Comprehensive strategy (freshwater habitat) -- all three measured systematically at the regional scale (EMAP)
- Why EMAP? What is it?
- Some sample EMAP data
- Status and trend policy questions
- Strategy scale
- How precise should this effort be? (the current proposal: 90% confidence of detecting a 17% change for each of the 62 WRIAs, cost $6.2 million per year)
- What is validation monitoring?
- Validation approach
- Effectiveness monitoring
- Implementation monitoring
- Compliance monitoring
- Habitat restoration projects
- Watershed planning
- Data access and management (current proposal: a web portal approach, rather than a repository)
- Policy decisions

The group asked a few clarifying questions, focused primarily on the adequacy of the existing body of water quality data for the purposes of Washington's comprehensive strategy for monitoring watershed health; Laura Hamilton noted that the Corps has more than 30 years of fixed monitoring station-generated water quality data. Crawford said the Corps' data may or may not be useful for Washington's purposes, primarily because it was collected for a specific purpose, rather than being randomly collected. Still, the Corps data may be of assistance to your effort, Hamilton said; we weren't sure you were aware of its existence. It may well be a useful addition to the web portal, Crawford agreed.

Schneider noted that Washington's is just one of many sophisticated database development efforts ongoing and planned in the region; this raises the concern, he said, that there may not be adequate coordination and communication between these efforts. Crawford agreed, noting that he was unaware of the WQT's existence until Schneider contacted him. He asked anyone with further questions to contact him directly at 360/902-2956.

3. FCRPS Scheduled Outages.

Vern Perry of the Corps briefed the WQT on 2002 scheduled generation outages. He noted that the most recent information on unit outages is available by tapping into the TMT website (www.nwd-wc.usace.army.mil/TMT/), then going to "Documents," then "Generation Status." Perry also distributed a handout (Enc. F) summarizing the current unit outages in the system, noting that these include both scheduled maintenance

outages and forced outages, as well as Enclosure G, a detailed unit-by-unit explanation of these outages and when each unit is expected to be back in service.

Perry spent a few minutes going through this information, noting that one of the most problematic outages is Lower Granite's Unit 1, which will not be back in service until late July at the earliest. Because of the forced outage at Lower Granite, powerhouse capacity at the project will be limited to 93 Kcfs until late June, when Unit 5 is scheduled to be back on line.

Overall, however, so far this year, it looks as though we're in good shape, in terms of current unit outages, Schneider said. So far, that's true, Scott Bettin replied, forced outages can occur at any time. Perry reminded the WQT that there will be no voluntary spill at Lower Monumental Dam this year due to the stilling basin erosion at that project; we're hoping to avoid spill completely at that project in 2002, he said, but it will depend on the runoff. He added that the erosion is scheduled for repair as soon as the freshet has passed; those repairs will be completed in time to allow voluntary spill to occur at Lower Monumental in the spring of 2003.

4. FCRPS Unscheduled Outages.

Scott Bettin distributed the most recent version of the TMT spill priority list (Enc. H), which comes into play if forced spill occurs due to unscheduled outages, lack of load or sudden increases in flow. He went briefly through its contents, noting that the installation of flow deflectors has greatly increased the spill capacity at many of the eight mainstem dams. Bettin noted that the loss of the DSI load has eliminated one of the main tools in the anti-forced spill toolbox, because when the aluminum companies were operating, their ability to use load 24 hours a day greatly reduced lack-of-load-induced spill.

Bettin also discussed the sometimes-paradoxical effects of Biological Opinion implementation and of the new flow deflectors installed at many projects in the FCRPS.

5. Reasonable and Prudent Alternative Action #143.

Schneider reminded the group that there are some 199 action items identified in the 2000 Biological Opinion; RPA #143 calls for the identification of a Snake River water temperature model and the development of a water quality data collection strategy to support the model, with the goal of creating a tool that will allow the river to be better managed for fish. A WQT subgroup was formed to address this RPA, Schneider said; I wanted to give you an update on the subgroup's activities today.

Schneider distributed Enclosure C, a document titled "RPA #143 – Snake River Water Temperature Monitoring and Modeling." He said the subgroup met last week; one of the primary topics at that meeting was monitoring and data collection. We tried to identify all of the projects being undertaken to collect water temperature data in 2002,

Schneider said; that is the list included under Item 1 in Enclosure C. Schneider spent a few minutes going through this list of seven studies.

Schneider then distributed Enclosure D, a table titled "Temperature and Discharge Tables for Lower Snake River Mainstem." He explained that this table is a sample of the data in a database developed by Stu McKenzie; at last week's meeting, the subcommittee told McKenzie that they would like to see his database brought completely up to date. Essentially, this is the kind of data the subgroup feels will be needed to answer the questions inherent in RPA #143, Schneider said; it should be updated soon, and available for use.

Next, Schneider drew the team's attention to Enclosure E, a memo titled "Resolution of Question 10 ('What are the optimal Snake River water temperatures, thermal profiles or thresholds for migrating juvenile and adult listed salmonids?')." He noted that the group has generated about a dozen questions in all, which they are now attempting to answer. Eventually, he said, once we've developed our proposed answers, we'll be bringing all of these questions and answers back to the full WQT for consideration. Question 10 attempts to get at the biological impacts of temperature, and what sort of a temperature regime is conducive to good migratory conditions, he explained. Schneider said any suggestions as to how the question might better be worded would be welcome. He added that a more formal interim report will be provided to the WQT soon, covering the conceptual model of the dynamics of Dworshak operations, the prioritized list of questions and the tools needed to answer them, a summary of existing and planned models, the historical matrix of Lower Snake water temperature data through 2002, and the plan and timeline for the final report from the RPA #143 subgroup.

6. Spill Cap/TDG Performance Trends and Update on 2002 Results.

Schneider said this agenda item has its roots in the last WQT meeting, a discussion of how power operational decisions are made in the context of the Biological Opinion, as well as how scheduled and unscheduled outages affect spill. Steve Rainey led the presentation, distributing copies of a presentation titled "Deflector Optimization (Gas Fast-Track)" (Enc. I). This is basically an update on the gas fast-track program, Rainey explained; he then went through his presentation point by point. Please refer to Enclosure I for full details of Rainey's presentation. Some of the main topic areas of this presentation included:

- The schedule and goals of the deflector optimization program
- The status of deflector optimization in the Lower Columbia
- The status of deflector optimization in the Lower Snake
- New TDG influences (2002) in the Lower Snake and Columbia Rivers (six new deflectors at Bonneville, four new deflectors at McNary, no voluntary spill at Lower Monumental, April 24-hour spill at Little Goose, the Lower Granite Removable Spillway Weir)

- The result of these new TDG influences: a lot of uncertainty and range-finding to identify appropriate waiver spill levels at fixed monitoring stations
- The fixed monitoring station (FMS) reading ranges, to date, in 2002 (by project)
- The Lower Granite RSW
- 2002 TDG trends at COE projects (consistently within the 120%/115% TDG limits, greater spill volumes than expected in terms of TDG performance with the new deflectors, new spill schedules are aiding gas performance, many projects are operating at less than spill cap spills and are experiencing low TDG levels, forebay fixed monitoring stations at downstream sites are becoming spill control points, the new structural and operational changes have meant a steep learning curve for project operators, the Lower Granite RSW promises to pay TDG dividends, and the deflector program will be completed with Little Goose end-deflector installation prior to the 2004 spill season.)

Rainey noted that it is NMFS' hope that the lessons learned in 2002 will allow for much more efficient system operations in 2003. The group devoted a few minutes of discussion to the nuances of the 2002 spill operations, and the complexities involved in meeting the desired spill levels this year. Ultimately, Rainey asked anyone with comments or questions on his presentation to contact him directly. Hamilton noted that the Corps' most recent spill and TDG data is available via the TMT homepage by clicking on "Documents," then "Operations," then "Spill Charts."

7. Re-Engagement on Mainstem Columbia River Water Quality Plan.

Schneider said this item has to do with the regional water quality planning group; the next meeting of this group is scheduled for May 30. I would encourage all of you to go back to the office and ensure that your agency's representative will be in attendance on the 30th.

8. Next WQT Meeting Date.

The next meeting of the Water Quality Team is set for Tuesday, June 11.
Meeting summary prepared by Jeff Kuechle, BPA contractor.