

WATER QUALITY TEAM MEETING NOTES

June 11, 2002

**National Marine Fisheries Service Offices
Portland, Oregon**

Introductions and Review of the Agenda.

Mark Schneider of NMFS, WQT co-chair, welcomed everyone to the meeting, held June 11 at the National Marine Fisheries Service's offices in Portland, Oregon. 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) or kathy.ceballos@noaa.gov, to obtain copies.

2. Report and Technical Discussion of Subgroup's Work on RPA #143.

Schneider noted that the main purpose of today's meeting is to allow for an in-depth discussion of the work accomplished by the WQT subgroup formed to address BiOp RPA # 143, which covers Snake River water temperature monitoring and modeling. The subgroup has a lot to report to the WQT, said Schneider, and would benefit greatly from the full group's participation in discussing anticipated work products and applications. Jim Ruff noted that NMFS management truly appreciates the subgroup's efforts, and is fully supportive of the work the subgroup is doing.

Schneider touched briefly on the background of RPA #143, noting that Snake River water temperatures and, in particular, the use of cool water from Dworshak in an effort to control those temperatures, are issues that predate the BiOp. He also discussed some of the studies and research proposals that have been put forward to address this issue in the past.

Schneider noted that RPA #143 mandates the development of models that will allow the Snake River to be better managed for temperature; it also discusses the monitoring and data collection needs associated with this effort. He then introduced Stu McKenzie, one of the leaders in the subgroup effort.

McKenzie said one of the handouts for this meeting was a list or matrix of questions developed by the subgroup; this matrix is attached to the agenda for today's meeting (Enclosure A); we were trying to list the various things we needed to know, in terms of the data needed and a suggested analytical approach, he explained. The list

has been altered somewhat to put the highest-priority questions first, McKenzie said. Obviously, he said, we needed to look at what data already exists, what data is being collected this year, and what data still needs to be collected in order to fill the most important data gaps.

Joe Carroll then led a presentation on the interim index table to data inventory, calendar year 2002. This table, Enclosure C, lists the water quality and meteorological studies planned or underway in 2002. Carroll characterized this list as a work in progress, and asked anyone who knows of other studies that should be included in this list to contact him directly at 541/298-6656 or joe.h.carroll@nwp01.usace.army.mil. He then spent a few minutes going through the specific studies contained on the list.

Carroll also distributed Enclosure D, an overview of water quality projects planned for the Lower Snake River in 2002. Again, he spent a few minutes going through this list, which included:

- Lower Snake River temperature and water quality studies in 2002
- Numerically simulating the hydrodynamic and water quality environment for migrating salmon in the Lower Snake River
- Monitoring water temperatures in the Lower Snake River reservoirs with emphasis on Lower Granite Reservoir
- The effects of summer flow augmentation on the migratory behavior and survival of juvenile Snake River fall chinook salmon.

Gene Spangrude of the Corps' Walla Walla District described his ongoing study of the differences between fish ladder temperatures and reservoir temperatures at McNary and Lower Granite Dams; we have separated each of the ladders into about 25 segments, he said, and to date, we haven't seen a lot of differences in the temperatures in the top segments of the ladder and the bottom segments of the ladder.

Carroll continued on through Enclosure C; Schneider suggested that more information about the river-mile locations of each of the ongoing and planned monitoring locations in 2002 would be very helpful. Carroll said the addition of more precise location information is one of the logical next steps in this analysis.

Continuing on, Carroll touched on some of the other studies planned for 2002, including weather data, hourly spill and powerhouse discharge information, six-times hourly discharge per spill bay and turbine data, as well as various TDG studies. He also discussed the Tiffan/Rondorf study, the goal of which is to provide fishery managers with an understanding of the migratory behavior and survival of juvenile fall chinook salmon in the Snake River, to allow the maximum recovery benefits of summer flow augmentation to be achieved. Carroll also touched on planned upstream Snake River temperature logging stations.

Carroll referenced the Corps' plans to do some additional monitoring and data

collection at the Anatone fixed monitoring station location; there is reason to believe that inflow from the Grand Ronde River 6,000 feet upstream of the gauge may be biasing the data collected there. Carroll said average temperatures at Anatone were about 1 degree C. warmer than temperatures just upstream of the confluence during the months of June and July. By August and September, however, this effect tends to dissipate, as Snake River temperatures begin to equal Grand Ronde River temperatures.

The group discussed various additional studies that might be included in the subgroup matrix; Bill Hevlin mentioned Chris Peery's work using pressure-sensitive tags. Carroll said he will contact Peery directly to see whether or not the results of his study might be useful to the RPA #143 subgroup. Basically, said McKenzie, our goal is to ensure that we collect the data that will fill in the crucial gaps and allow us to develop a model that truly represents actual in-river conditions. Even identifying all of those key gaps, however, has been a challenge, McKenzie said.

Jim Irish thanked McKenzie and Carroll for all of their hard work in assembling the data in support of this effort; they really deserve an A for effort, he said.

So what's the next step for the Water Quality Team? Schneider said the RPA #143 subgroup will be drafting an interim report on its activities to date which will then be submitted to the WQT, the IT and NMFS.

Spangrude then expanded on his earlier description of his fish ladder temperature studies work, using a series of photos and graphs to illustrate the results of his upstream-to-downstream water temperature investigation. He noted that, in some cases, the water at the bottom of the Lower Granite ladder can actually be cooler (by up to 4 degrees C) than the water at the top, depending on water source. Again, he said, we don't see such a dramatic difference in upper and lower ladder temperatures at McNary or the other Lower Snake River projects.

3. Report on the Mainstem/Systemwide Water Quality Planning Group Meeting of May 30, 2002.

Schneider said this subgroup has met twice to date, most recently in late May. The group is composed of policy-level representatives from the states, Tribes, PUDs and Federal agencies; it has been meeting to satisfy the BiOp requirement to develop a mainstem/systemwide comprehensive water quality plan. The plan will gather together all of the water quality-related activities going on in the mainstem and put them into an organized context – a roadmap to water quality activities, if you will, Schneider said.

The main subgroup task to date has been the development of a mainstem/systemwide province water quality summary, Schneider said; the project solicitation process it was intended to inform ended June 3, and the water quality summary has now been provided to the Council. There will be an open, public review of each of the proposals in the third week of July; in the interim, the ISRP and CBFWA will

be reviewing the projects. CBFWA will then make its recommendations to the Council in October, he explained.

The Council has indicated that there will be \$37 million available to fund projects in the mainstem/systemwide province through the Council process, Schneider continued; of that total, approximately \$28 million will be absorbed by ongoing projects, leaving only about \$9 million for new projects.

The main upcoming activity of the subgroup is the development of the actual plan, said Schneider; you will recall that an outline for the plan was developed last fall. During discussion at the last two meetings, the issue of contaminants and toxic materials came up again, in particular, how it might be dealt with, in addition to dissolved gas and water temperature, in the mainstem/systemwide water quality plan. All I can say there is, stay tuned, Schneider said; the next subgroup meeting is set for July 10.

4. Next WQT Meeting Date.

The next meeting of the Water Quality Team was set for Tuesday, July 9 (Subsequently, the July and August meetings of the WQT were cancelled). Meeting summary prepared by Jeff Kuechle, BPA contractor.