Review of the Corps of Engineers "2002 Water Management Plan" Sub-Strategy: Other Actions to Enhance Water Management 7.3 Water quality Actions

## 7.3.2 Total Dissolved Gas Monitoring

Monitoring of the physical and biological effects of the Biological Opinion (BiOp) spill program has been and continues to be a necessary part of the water quality activities associated with the spill program. Additionally, physical monitoring of total dissolved gas (TDG) at the fixed monitoring stations throughout the Columbia and Snake rivers as well as biological monitoring of juvenile and adult salmonid migrants has been a requirement of the state water quality agencies as part of the annual waiver of water quality standards. A detailed description of the two monitoring programs needs to be provided.

In the past the monitoring planning was done in concert with the annual Water management Plan(WMP). When the WMP was distributed for review and comment at the Water Quality Team (WQT) on January 8, 2002 the absence of monitoring plan discussions was noted. The Corps representative explained that the monitoring plans would be addressed in subsequent planning documents. The discussion of the TDG monitoring in Section 7.3.2 is inadequate for this purpose and no mention is made in the WMP of plans for biological monitoring. We strongly recommend that the Corps include a full discussion of the two monitoring program plans either as a component of the final Water Management Plan or in companion planning documents.

## 7.3.3 Total Dissolve Gas Monitoring Review

The third sentence should be changed to, "NMFS believes that some forebay locations, such as the Camas site, have <u>may need</u> to be changed. The BiOp clearly indicates that there may be a problem with representativeness of the sampling of fixed monitoring stations (FMS), particularly forebay stations, but the BiOp called for a careful technical evaluation of the conditions at the stations and a coordination with the WQT in making of final decisions. The WMP should reflect these points more accurately.

A subgroup of the WQT has been working on this issue for a number of months and is nearing the end of its efforts. The subgroup has developed a set of criteria for FMS performance, has applied these criteria to nearly half of the FMS locations and has concluded its discussions of the Camas site in particular. The WMP should reflect these efforts and findings. Also, the current draft makes reference to a due date of February 2001 for the development of a plan to review the FMS system. It is currently a year later. This reference in a planning document for calendar 2002 makes no sense.

## 7.3.4 Total Dissolved Gas Model

The draft WMP makes reference in this section to a due date of spring 2001 for the development of TDG models to be used as river management tools. This reference in a planning document for calendar 2002makes no sense. Further, as the draft describes, the Corps and BPA conducted workshops on the SYSTDG model in February and March of 2001. At that time the model was described as being management capable at that time. The draft seems to contradict what the region was told at the workshops. This should be clarified.

## 7.3.5 Temperature Model and Temperature Monitoring Needs

The first sentence needs to be clarified. It states, "Water temperature <u>alteration</u>, <u>elevation or depression</u> caused by impoundment of pools behind dams can result in a change of water temperature regime of the river." The underlined words are suggestions that might help but th original intent of the statement is not clear to the reader.

The second paragraph in this section states that the geographic scope of the model called for by Action 143 of the RPA is unclear. It then proceeds to state the specific geographic guidance provided in the BiOp. Clearly, the primary focus of this action item is the Snake River and Lower Granite Reservoir. Hells Canyon and Dworshak Dams are mentioned because these are the major structures offering control of water releases into the reach of concern. Bonneville Dam is mentioned because the thermal effects of changes in the Snake River are likely to have influence further downstream. In cases where technical future decisions or action item implementation guidance was anticipated by the BiOp the Water Quality Team was identified as a source to the region. If clarification of technical matters is required in the WMP or other actions related to the BiOp the Corps should consider bringing the issue to the WQT.