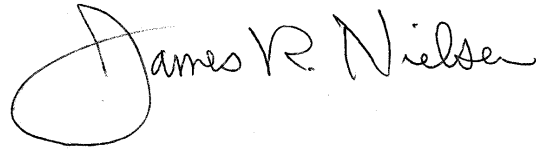


## **SYSTEM OPERATIONAL REQUEST:#98-2**

**TO:**        **Brigadier General Griffin**    **COE-NPD**  
              **William Branch**                **COE-RCC**  
              **Cindy Henriksen**               **COE-RCC**  
              **Bolyvong Tanovan**               **COE-RCC**  
              **Dave Geiger**                     **COE-P**  
              **John Keys III**                     **USBR-Boise**  
              **Jack Robertson**                 **Acting BPA-Administrator**  
              **Greg Delwiche**                  **BPA-PGP-5**  
              **Mark Maher**                     **BPA-PG-5**



**FROM:**        **Jim Nielsen, Chairperson, Salmon Managers**

**DATE:**        **January 27, 1998**

**SUBJECT:**    **Reservoir Operations and Effect on Spring and Summer Flows.**

### **SPECIFICATIONS:**

Operate storage reservoir releases to meet upper rule curve flood control requirements. Manage upper Snake River reservoirs to maximize reservoir elevations by April 1. If necessary, postpone reservoir drafts to avoid impacting spring and summer migration flow requirements and winter/spring instantaneous flow requirements at Vernita Bar and Ives and Pierce islands.

### **JUSTIFICATION:**

Federal operating agencies are currently operating the hydrosystem primarily to meet power generation requirements. Recently the agencies and tribes discussed the operations to date and the resulting flood control elevations. The present reservoir elevations are far below the flood control requirements and we are concerned that this will impact the provision of flows for salmon and steelhead during the spring and summer period.. Presently Grand Coulee is at elevation 1268, Hungry Horse at 3526.4, Libby at 2404.1, and Dworshak at 1509.71. The end of January flood control elevations are 1290 feet for Grand Coulee, 3549.5 feet for Hungry Horse, 2409.4 feet for Libby and 1564.3 feet for Dworshak. Although we recognize that the Dworshak operation is presently at minimum outflow, we are concerned that the operations of reservoirs to date and the planned specific operations of other reservoirs such as Grand Coulee may jeopardize the implementation of fish protection measures. The spring and summer flows at McNary and Lower Granite will already be impacted by the projected inability of system operators to fill Dworshak reservoir to its end of March flood control elevations. Our concern is emphasized by the below average January runoff volume forecast for these watersheds. Brownlee runoff

volume is predicted at 58% of average, The Dalles at 82%, Grand Coulee at 86% and 94% at Arrow. These runoff volume forecasts and the draft below flood control requirements have significant potential to impact salmon and steelhead flow protection required by the Biological Opinion. Dworshak reservoir is unlikely to reach its flood control elevation in April. The Upper Snake River reservoirs should be operated to full by April 1, to balance as much as possible the low Dworshak elevations and to assist in meeting spring and summer flow targets at Lower Granite Dam.

The USBR has advised us that Grand Coulee Reservoir will be drafted an additional 10 feet by February 15 and held at that elevation for four to eight weeks. This is far below the flood control requirement. The operation is to facilitate work on the drum gates. The draft of Grand Coulee and other reservoirs for power generation and maintenance has potential for impacting the provision of Vernita Bar flows, Ives, Pierce Island flows, and spring and summer migration flows. A daily average flow of 135 kcfs is required at Vernita Bar in order to meet the Vernita Bar Settlement Agreement minimum flows in March and April. In addition, emerging fall chinook and chum salmon will require instantaneous flows of 130 kcfs below Bonneville Dam at Ives and Pierce islands spawning areas.

*\*The Salmon Managers are state, federal and tribal entities who have legally recognized mandates and jurisdictions to manage salmon resources in the Columbia River Basin. The following have participated in the preparation of this SOR: Oregon Department of Fish & Wildlife, National Marine Fisheries Service, Columbia River Inter-Tribal Fish Commission, U.S. Fish & Wildlife Service, Idaho Department of Fish and Game, Washington Department of Fish and Wildlife.*