

## **Proposed Change in 2007 Summer Spill Operation at Bonneville Dam**

### **Background**

The Action Agencies, along with the Regional Forum Fish Facility Design Review Work Group (FFDRWG) and Studies Review Work Group (SRWG), have been working since fall 2005 to improve the survival of juvenile salmon and steelhead that pass through the Bonneville Dam spillway. In 2006, new spill operations were implemented and tested for both the spring and summer juvenile fish migration periods. The tested spring spill operation was 100 Kcfs for 24 hours/day. The summer spill operation was 75 Kcfs during the day and spill to the total dissolved gas (TDG) spill cap at night (approximately 120 Kcfs). Results for the summer test did not indicate a survival improvement compared to previous years. A new summer spill operation intended to improve TDG performance and juvenile fish egress was developed during the spring of 2007. To obtain a juvenile fish egress improvement, it was necessary to increase the daytime spill discharge from 75 Kcfs to 85 Kcfs. The SRWG has developed a plan to evaluate this new operation.

### **2007 Fish Operations Plan (FOP)**

The Bonneville Dam spring spill operation as described in the FOP is 100 Kcfs spill 24 hours/day from April 10 through June 30, 2007. Summer spill operations call for a set daytime spill cap of 75 Kcfs and spill to the TDG spill cap at night from July 1 through August 31, 2007. This is the same operation that was implemented in 2006.

### **Proposed Change to the FOP**

The Action Agencies intend to implement the new summer spill operation for the period of the planned evaluation, which runs from June 21 through July 15, 2007. Therefore, the planned operation is to spill 85 Kcfs during daytime hours and spill to the TDG spill cap at night, from June 21 through July 15. From July 16 through August 31, the Action Agencies intend to revert back to the agreed upon FOP summer spill levels, which is 75 Kcfs during daytime hours and spill to the TDG spill cap at night. The actual change in spill amount is not quantifiable because the volume of spill is determined in part by the TDG spill cap; however, it is probable that there will be no net difference or a small net increase in spill.

### **Rationale for Change**

The justification for these spill changes is twofold:

1. Advancing the date to June 21 from July 1 provides a better match between the study period and actual 2007 subyearling Chinook salmon migration timing at Bonneville Dam. This will result in a biological evaluation that is more representative of the fish run.
2. Based on hydraulic model observations, the new operation is expected to increase subyearling Chinook salmon survival.

### **Coordination**

The modified summer spill operation at Bonneville Dam was developed and coordinated through the Regional Forum Fish Facility Design Review Working Group (FFDRWG) and Studies Review Working Group (SRWG). Implementation of the proposed change in daytime operation for biological testing was agreed upon by FFDRWG members from the Corps, BPA, NOAA Fisheries, ODFW, USFWS, IDFG and CRITFC. The evaluation of the new operation was

developed and coordinated through SRWG. The Corps has coordinated the spill changes described above with the signatories to the 2007 Agreement and no objections have been raised.