

# United States Department of the Interior

# **BUREAU OF RECLAMATION**

**Great Plains Region** Montana Area Office P.O. Box 30137 Billings, Montana 59107-0137



MT-450

June 4, 2007

# **FAXOGRAM: Water Order Change**

To: Chief, Power Supply and Billing Division, WAPA, Watertown, South Dakota

Attention: F-6001

Chief, Power Dispatching Branch, WAPA, Loveland, Colorado

Attention: J-4120

Facilities Manager, Hardin, Montana Attention: MT-300: Tom Tauscher Project Manager, Mills, Wyoming

Attention: WY-4000, WY-4100, WY-6400

Assistant Superintendent, National Park Service, Lovell, Wyoming

Attention: Jim Staebler

From: Reservoir and River Operations, Billings, Montana

Subject: Yellowtail Water Release Order - BHR No. 07-21

# **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3628.06; Storage: 941,283 acre-feet; River Release: 1,500 cfs; Inflow: 3,530 cfs;

### **GENERAL COMMENTS:**

This FAXOGRAM confirms the operation change that was required and made on May 31, 2007. Due to the recent rains, the BIA requested a reduction in irrigation deliveries to the Bighorn Canal. As a result, the following operation change was required and made at Yellowtail Dam and Powerplant.

NOTE: This is the time period when fish are more susceptible to high levels of nitrogen gas super-saturation. To provide a more desirable mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates to maintain the total gas super-saturation levels at safe limits, the minimum Afterbay elevation should be maintained at or above elevation 3183 whenever possible. This is only a soft limit and may be deviated from during special or emergency operations.

#### **TURBINE RELEASES:**

#### **At 1700 hour on Thursday, May 31, 2007:**

Decrease average daily turbine release to 1,580 cfs ( $\approx$  948 MW-Hrs/day using 40.0 cfs/mw).

# AFTERBAY RELEASE AND OPERATION:

#### At 1700 hour on Thursday, May 31, 2007:

Decrease diversions to the Bighorn Canal to 150 cfs (gage height = 71.71 with 0.0 shift). Maintain river release at 1,500 cfs (gage height = 59.15 with a shift of -0.08). Decrease total release from the Afterbay to 1,650 cfs.