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# United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



May 8, 2012

## **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: Valerie Newman

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 12-30**

### **CURRENT RESERVOIR CONDITIONS**

Elevation: 3615.19 Storage: 795,846 acre-feet; River Release: 2,500 cfs; Inflow: 2,710 cfs;

### **GENERAL COMMENTS:**

Snowpack conditions in the Bighorn River Basin is about 61% of average. Based on the May 1 water supply outlook, releases to the Bighorn River will be decreased to conserve storage. It has been reported the gate refurbishment contractor has completed work requiring a restriction on the maximum Afterbay level and therefore the level of the Afterbay can begin increasing at 2000 hour on May 8. In response, the following operations are required at Yellowtail Dam, powerplant, and Afterbay Dam.

**NOTE: This is the time period when fish are more susceptible to high levels of nitrogen gas super-saturation. The level of the Afterbay must be maintained no lower than elevation 3182.5 and no higher than elevation 3192, to provide a mixing flow of approximately 75% through the spillway gates and 25% through the sluice gates to maintain the total gas super-saturation levels within safe limits. This is a soft limit and may be deviated from during special or emergency operations required to meet energy demands.**

### **YELLOWTAIL TURBINE RELEASE:**

**At 1700 hour on Tuesday, May 8, 2012:**

*Decrease average daily turbine release to 2,600 cfs ( $\approx$  1,515 MW-Hrs/day using 41.2 cfs/mw).*

**At 1600 hour on Wednesday, May 9, 2012:**

*Decrease average daily turbine release to 2,350 cfs ( $\approx$  1,370 MW-Hrs/day using 41.2 cfs/mw).*

### **AFTERBAY RELEASE AND OPERATION:**

**At 1700 hour on Tuesday, May 8, 2012:**

*Maintain diversions to the Bighorn Canal at 420 cfs (gage height = 73.36 with +0.57 shift).*

*Decrease river release to 2,250 cfs (gage height = 59.94 with -0.14 shift).*

*Decrease total release from the Afterbay to 2,670 cfs.*

**At 1600 hour on Wednesday, May 9, 2012:**

*Maintain diversions to the Bighorn Canal at 420 cfs (gage height = 73.36 with +0.57 shift).*

*Decrease river release to 2,000 cfs (gage height = 59.72 with -0.14 shift).*

*Decrease total release from the Afterbay to 2,420 cfs.*

/S/ Tim H. Felchle