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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 17, 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. 07-18**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3620.26; Storage: 875,594 acre-feet; River Release: 1,500 cfs; Inflow: 3,750 cfs;

### **GENERAL COMMENTS:**

The BIA has requested irrigation deliveries to begin on May 21 and be gradually increased during the week. As a result, the following operation changes are required 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 0800 hour on Monday, May 21, 2007:**

*Increase average daily turbine release to 1,480 cfs (≈ 880 MW-Hrs/day using 40.3 cfs/mw).*

**At 1600 hour on Monday, May 21, 2007:**

*Increase average daily turbine release to 1,530 cfs (≈ 910 MW-Hrs/day using 40.3 cfs/mw).*

**At 0800 hour on Tuesday, May 22, 2007:**

*Increase average daily turbine release to 1,580 cfs (≈ 940 MW-Hrs/day using 40.3 cfs/mw).*

**At 0800 hour on Wednesday, May 23, 2007:**

*Increase average daily turbine release to 1,630 cfs (≈ 970 MW-Hrs/day using 40.3 cfs/mw).*

**At 0800 hour on Thursday, May 24, 2007:**

*Increase average daily turbine release to 1,680 cfs (≈ 1,000 MW-Hrs/day using 40.3 cfs/mw).*

**At 1600 hour on Thursday, May 24, 2007:**

*Increase average daily turbine release to 1,730 cfs (≈ 1,030 MW-Hrs/day using 40.3 cfs/mw).*

**AFTERBAY RELEASE AND OPERATION:**

**At 0800 hour on Monday, May 21, 2007:**

*Increase diversions to the Bighorn Canal to 50 cfs (gage height = 70.33 with 0.0 shift).  
Maintain river release at 1,500 cfs (gage height = 59.15 with a shift of -0.08).  
Increase total release from the Afterbay to 1,550 cfs.*

**At 1600 hour on Monday, May 21, 2007:**

*Increase diversions to the Bighorn Canal to 100 cfs (gage height = 71.11 with 0.0 shift).  
Maintain river release at 1,500 cfs (gage height = 59.15 with a shift of -0.08).  
Increase total release from the Afterbay to 1,600 cfs.*

**At 0800 hour on Tuesday, May 22, 2007:**

*Increase 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).  
Increase total release from the Afterbay to 1,650 cfs.*

**At 0800 hour on Wednesday, May 23, 2007:**

*Increase diversions to the Bighorn Canal to 200 cfs (gage height = 72.21 with 0.0 shift).  
Maintain river release at 1,500 cfs (gage height = 59.15 with a shift of -0.08).  
Increase total release from the Afterbay to 1,700 cfs.*

**At 0800 hour on Thursday, May 24, 2007:**

*Increase diversions to the Bighorn Canal to 250 cfs (gage height = 72.66 with 0.0 shift).  
Maintain river release at 1,500 cfs (gage height = 59.15 with a shift of -0.08).  
Increase total release from the Afterbay to 1,750 cfs.*

**At 1600 hour on Thursday, May 24, 2007:**

*Increase diversions to the Bighorn Canal to 300 cfs (gage height = 73.07 with 0.0 shift).  
Maintain river release at 1,500 cfs (gage height = 59.15 with a shift of -0.08).  
Increase total release from the Afterbay to 1,800 cfs.*

/S/ Tim H. Felchle