



IN REPLY REFER TO: MT-450

United States Department of the Interior

BUREAU OF RECLAMATION

Great Plains Region

Montana Area Office

P.O. Box 30137

Billings, Montana 59107-0137



July 7, 2006

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. 06-30**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3611.48; Storage: 812,735 acre-feet; River Release: 2,000 cfs; Inflow: 1,455 cfs;

GENERAL COMMENTS:

The drought is severely impacting the water supply in the Bighorn River Basin. The inflow to Bighorn Lake has decreased dramatically, causing storage to gradually decline. To slow the rate of decline, releases from Bighorn Lake to the Bighorn River will be gradually decreased. In addition, recent flow measurements were made on the Bighorn River and Canal; therefore new shifts of -0.30 and -0.19, respectively, will be applied.

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 Monday, July 10, 2006:

Decrease average daily turbine release to 2,255 cfs (\approx 1,670 MW-Hrs/day using 32.4 cfs/mw).

At 1700 hour on Tuesday, July 11, 2006:

Decrease average daily turbine release to 2,130 cfs (\approx 1,575 MW-Hrs/day using 32.4 cfs/mw).

At 1700 hour on Wednesday, July 12, 2006:

Decrease average daily turbine release to 2,005 cfs (\approx 1,485 MW-Hrs/day using 32.4 cfs/mw).

At 1700 hour on Thursday, July 13, 2006:

Decrease average daily turbine release to 1,880 cfs (\approx 1,390 MW-Hrs/day using 32.4 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1700 hour on Monday, July 10, 2006:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 74.32 with -0.19 shift).

Decrease river release to 1,875 cfs (gage height = 59.76 with a shift of -0.30).

Decrease total release from the Afterbay to 2,325 cfs.

At 1700 hour on Tuesday, July 11, 2006:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 74.32 with -0.19 shift).

Decrease river release to 1,750 cfs (gage height = 59.64 with a shift of -0.30).

Decrease total release from the Afterbay to 2,200 cfs.

At 1700 hour on Wednesday, July 12, 2006:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 74.32 with -0.19 shift).

Decrease river release to 1,625 cfs (gage height = 59.51 with a shift of -0.30).

Decrease total release from the Afterbay to 2,075 cfs.

At 1700 hour on Thursday, July 13, 2006:

Maintain diversions to the Bighorn Canal at 450 cfs (gage height = 74.32 with -0.19 shift).

Decrease river release to 1,500 cfs (gage height = 59.37 with a shift of -0.30).

Decrease total release from the Afterbay to 1,950 cfs.

/S/ Tim H. Felchle