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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



July 9, 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
Area 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. 07-30**

CURRENT RESERVOIR CONDITIONS:

Elevation: 3636.89; Storage: 1,032,379 acre-feet; River Release: 1,750 cfs; Inflow: 1,120 cfs;

GENERAL COMMENTS:

Warm weather has increased the algae growth considerably in the Bighorn Canal. To assist with the maintenance of the algae growth in the canal, 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 1100 hour on Monday, July 9, 2007:

Decrease average daily turbine release to 1,960 cfs (\approx 1,336 MW-Hrs/day using 35.2 cfs/mw).

At 0700 hour on Monday, July 10, 2007:

Increase average daily turbine release to 2,010 cfs (\approx 1,370 MW-Hrs/day using 35.2 cfs/mw).

At 1300 hour on Monday, July 10, 2007:

Increase average daily turbine release to 2,060 cfs (\approx 1,405 MW-Hrs/day using 35.2 cfs/mw).

At 1700 hour on Monday, July 10, 2007:

Increase average daily turbine release to 2,110 cfs (\approx 1,439 MW-Hrs/day using 35.2 cfs/mw).

AFTERBAY RELEASE AND OPERATION:

At 1100 hour on Monday, July 9, 2007:

Decrease diversions to Bighorn Canal to 280 cfs (gauge height = 73.36 with new shift of -0.45).

Maintain river release at 1,750 cfs (gauge height = 59.42 with a shift of -0.08).

Decrease total release from the Afterbay to 2,030 cfs.

At 0700 hour on Tuesday, July 10, 2007:

Increase diversions to Bighorn Canal to 330 cfs (gage height = 73.75 with new shift of -0.45).

Maintain river release at 1,750 cfs (gage height = 59.42 with a shift of -0.08).

Increase total release from the Afterbay to 2,080 cfs.

At 1300 hour on Tuesday, July 10, 2007:

Increase diversions to Bighorn Canal to 380 cfs (gage height = 74.11 with new shift of -0.45).

Maintain river release at 1,750 cfs (gage height = 59.42 with a shift of -0.08).

Increase total release from the Afterbay to 2,130 cfs.

At 1700 hour on Tuesday, July 10, 2007:

Increase diversions to Bighorn Canal to 430 cfs (gage height = 74.45 with new shift of -0.45).

Maintain river release at 1,750 cfs (gage height = 59.42 with a shift of -0.08).

Increase total release from the Afterbay to 2,180 cfs.

/S/ Tim H. Felchle