



# United States Department of the Interior



BUREAU OF RECLAMATION  
Missouri Basin Region  
Montana Area Office  
PO Box 30137  
Billings, MT 59107-0137

IN REPLY REFER TO:  
MT-450

April 1, 2024

## 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  
Project Manager, Mills, Wyoming  
Attention: WY-4000, WY-4100, WY-6040  
Superintendent, National Park Service, Lovell, Wyoming  
Attention: James R. Hill

From: Reservoir and River Operations, Billings, Montana

Subject: **Yellowtail Water Release Order - BHR No. 24-31**

### **CURRENT RESERVOIR CONDITIONS:**

Elevation: 3621.05 feet; Storage: 823,922 acre-feet; River Release: 3,500 cfs; Canal Diversion: 0 cfs  
Inflow: 2,470 cfs; River Gage Shift: -0.15 feet

### **GENERAL COMMENTS:**

Releases to the Bighorn River are being increased. In response, the following operation changes are required at Yellowtail Dam, Powerplant and Afterbay Dam.

**SPECIAL NOTE:** To provide the proper mixing of water releases to the Bighorn River in attempt to minimize PSAT levels, it is desirable to maintain the Yellowtail Afterbay Reservoir between a maximum elevation of 3192.0 feet and a minimum elevation of 3183.0 feet and provide a mixing flow of approximately 75% through the radial gates and 25% through the sluice gates.

### **YELLOWTAIL TURBINE RELEASE:**

**At 1600 hour on Wednesday, April 3, 2024:**

*Increase average daily turbine release to 3,680 cfs. (≈ 2,555 MW-Hours/day using 34.6 cfs/mw)*

**At 1600 hour on Thursday, April 4, 2024:**

*Increase average daily turbine release to 3,930 cfs. (≈ 2,725 MW-Hours/day using 34.6 cfs/mw)*

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

**At 1600 hour on Wednesday, April 3, 2024:**

*Maintain diversion to Bighorn Canal at 0 cfs.*

*Increase river release to 3,750 cfs. (gage height = 60.91 ft and apply a new shift of -0.15 ft)*

*Increase total release from the Afterbay to 3,750 cfs*

**At 1600 hour on Thursday, April 4, 2024:**

*Maintain diversion to Bighorn Canal at 0 cfs.*

*Increase river release to 4,000 cfs. (gage height = 61.06 ft and apply a new shift of -0.15 ft)*

*Increase total release from the Afterbay to 4,000 cfs*