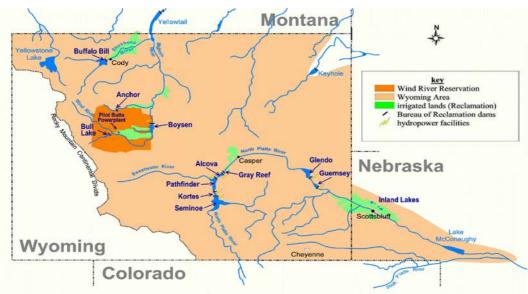


Bighorn Basin Water Supply and Utilization Report Wyoming Area Office Report for October 2016



The Wyoming Area Office of the Bureau of Reclamation is responsible for the operation of Reclamation reservoirs in Wyoming east of the Continental Divide except for Keyhole Reservoir. Four off-stream reservoirs in Nebraska commonly referred to as the Inland Lakes also fall within the Wyoming Area. The North Platte River Basin Reservoirs have a combined storage capacity of 2,800,000 acre-feet. The major reservoirs in the Shoshone and Wind/Bighorn Basins have a combined storage capacity of 1,600,000 acre-feet.



United States of America Department of the Interior Bureau of Reclamation Wyoming Area Office P.O. Box 1630 Mills, Wyoming 82644-1630

Report for October 2016 WATER SUPPLY AND UTILIZATION REPORT BIGHORN RIVER BASIN WYOMING AREA OFFICE

This report concerns the operation of Reclamation facilities in the Shoshone and Wind/Bighorn River Basins.

Reclamation defines a water year as the time period of October 1 through September 30. Water year is abbreviated in this report as W. Yr.

Other organizations furnished information for the Water Supply and Utilization Report. Their cooperation is greatly appreciated.

This report is available on the Internet and can be accessed by following these steps:

- 1. Log on to the Great Plains Home Page at <u>http://www.usbr.gov/gp</u>
- 2. Select Water Operations.
- 3. Select Water Management Information.
- 4. Select Water Supply Report.
- 5. Under Bighorn Basin, select the current report or reports from the previous 12 months

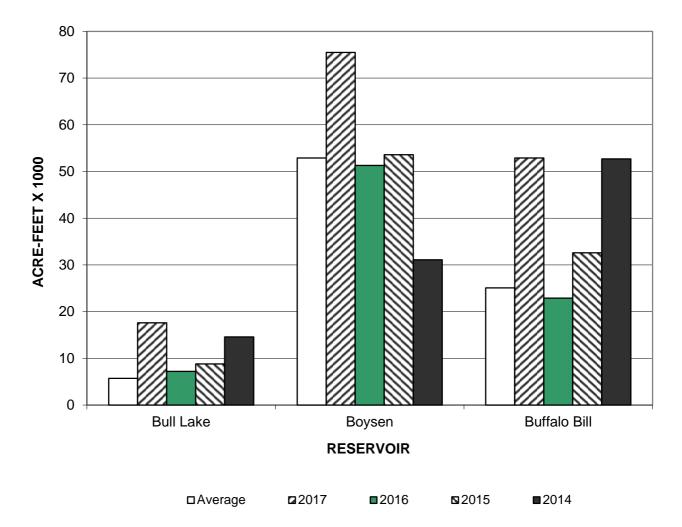
BIGHORN RIVER BASIN INFLOW

October inflow was above average at Bull Lake, Boysen, and Buffalo Bill Reservoirs.

(1000 acre-feet										
	October Inflow			October Historical Inflow			Accumulated Inflow (October)			
Reservoir	W. Yr. 2017	30 Yr. Avg. 1	% of Avg.	W. Yr. 2016	W. Yr. 2015	W. Yr. 2014	W. Yr. 2017	30 Yr. Avg.	% of Avg.	
Bull Lake	17.6	5.7	309	7.2	8.8	14.6	17.6	5.7	309	
Boysen	75.5	52.9	143	51.3	53.6	31.1	75.5	52.9	143	
Buffalo Bill	52.9	25.1	211	22.9	32.6	52.7	52.9	25.1	211	

¹ Average is based on the 1987-2016 period.





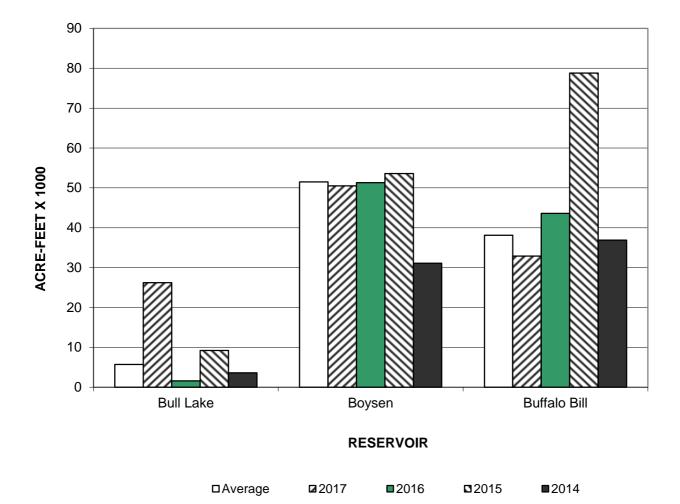
BIGHORN RIVER BASIN OUTFLOW

October releases were near or above average at Bull Lake and Boysen Reservoirs. Bull Lake outflow was increased to lower the reservoir for an inspection. The Bull Lake release was stored in Pilot Butte Reservoir.

(1000 acre-feet										
	October Outflow			October Historical Outflow			Accumulated Outflow (October)			
Reservoir	W. Yr. 2017	30 Yr. Avg. 1	% of Avg.	W. Yr. 2016	W. Yr. 2015	W. Yr. 2014	W. Yr. 2017	30 Yr. Avg.	% of Avg.	
Bull Lake	26.2	5.7	460	1.6	9.2	3.6	26.2	5.7	460	
Boysen	50.5	51.5	98	51.3	53.6	31.1	50.5	51.5	98	
Buffalo Bill	32.9	38.1	86	43.6	78.8	36.9	32.9	38.1	86	

¹ Average is based on the 1987-2016 period.

BIGHORN RIVER BASIN RESERVOIR OUTFLOW October



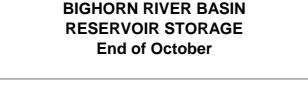
BIGHORN RIVER BASIN STORAGE

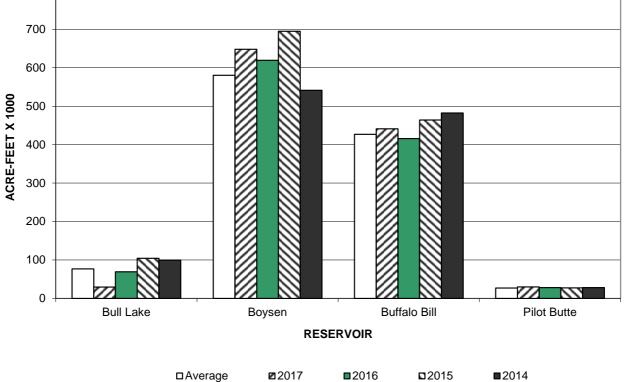
Storage at the end of October was above average at Pilot Butte, Boysen, and Buffalo Bill Reservoirs. Bull Lake storage was well below average due to the inspection of the dam.

	0		•	•				(1000 acre-feet)
	Т	otal Storag	е	End of October			Total	Percent
	Ei	nd of Octob	er	His	torical Stor	age	Conservation	of
Reservoir	W. Yr.	30 Yr.	% of	W. Yr.	W. Yr.	W. Yr.	Storage	Capacity
	2017	Avg. 1	Avg.	2016	2015	2014	Capacity	
Bull Lake	29.7	76.7	39	69.4	104.4	99.8	152.5	19
Boysen	648.2	580.5	112	619.5	695.1	541.6	741.6	87
Buffalo Bill	441.3	426.8 ²	103	415.7	464.0	482.2	646.6	68
Pilot Butte	29.8	27.2	110	28.0	27.3	28.3	33.7	88

800

¹ Average is based on the 1987-2016 period.
² This does not reflect a long term average because in 1992 the capacity of the reservoir was increased to approximately 646,565 acre-feet as a result of raising the dam. The average used here reflects data from 1993 through 2016.





BIGHORN RIVER BASIN GENERATION

Generation was above average at Heart Mtn. and Spirit Mtn. Powerplants.

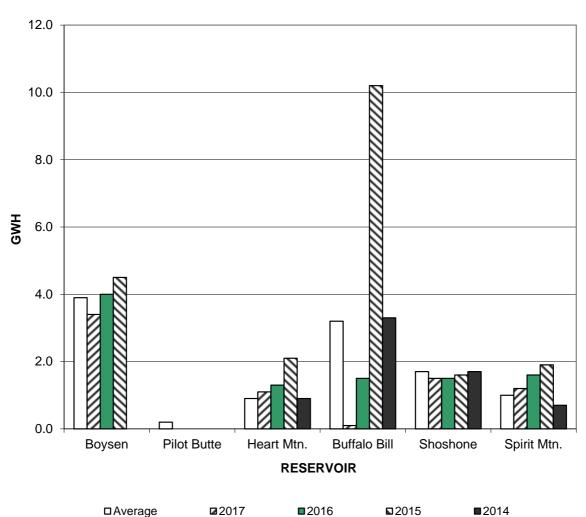
	(Energy in giga-watt hours)									
	October		October			Accumulated Gross Gen.				
	Gross Generation			Historical Generation			(October)			
Powerplant	W. Yr.	Avg.	% of	W. Yr.	W. Yr.	W. Yr.	W. Yr.	Avg.	% of	
	2017		Avg.	2016	2015	2014	2017		Avg.	
Boysen ¹	3.4	3.9	87	4.0	4.5	0.0	3.4	3.9	87	
Pilot Butte ²	0.0	0.2	0	0.0	0.0	0.0	0.0	2.0	0	
Heart Mtn. ³	1.1	0.9	122	1.3	2.1	0.9	1.1	0.9	122	
Buffalo Bill ³	0.1	3.2	3	1.5	10.2	3.3	0.1	3.2	3	
Shoshone ³	1.5	1.7	88	1.5	1.6	1.7	1.5	1.7	88	
Spirit Mtn. ⁴	1.2	1.0	120	1.6	1.9	0.7	1.2	1.0	120	

¹ Average is based on the 1987-2016 period.

² Average is based on the 1990-2016 period. Pilot Butte Powerplant is currently in "mothballed" status and does not generate electricity.

³ Average is based on the 1993-2016 period.

⁴ Average is based on the 1996-2016 period.



BIGHORN RIVER BASIN GROSS GENERATION October