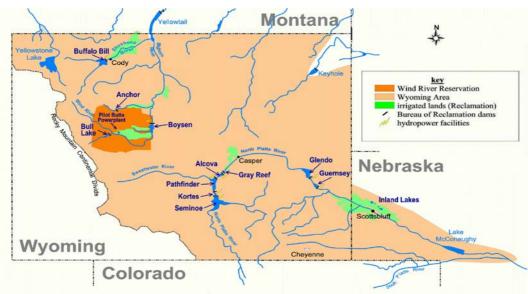


Bighorn Basin Water Supply and Utilization Report Wyoming Area Office Report for September 2016



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 September 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

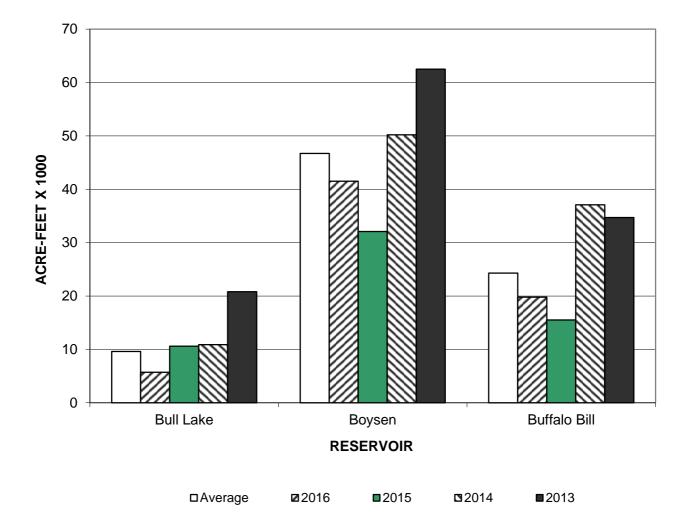
### **BIGHORN RIVER BASIN INFLOW**

September inflow was below average at Bull Lake, Boysen and Buffalo Bill Reservoirs.

								(10	000 acre-feet)
		September Inflow		September Historical Inflow			Accumulated Inflow (October-September)		
Reservoir	W. Yr. 2016	30 Yr. Avg. 1	% of Avg.	W. Yr. 2015	W. Yr. 2014	W. Yr. 2013	W. Yr. 2016	30 Yr. Avg.	% of Avg.
Bull Lake	5.7	9.6	59	10.6	10.9	20.8	176.0	184.1	96
Boysen	41.5	46.7	89	32.1	50.2	62.5	1072.6	908.7	118
Buffalo Bill	19.8	24.3	81	15.5	37.1	34.7	753.3	863.4	87

<sup>1</sup> Average is based on the 1985-2015 period.

## BIGHORN RIVER BASIN RESERVOIR INFLOW September



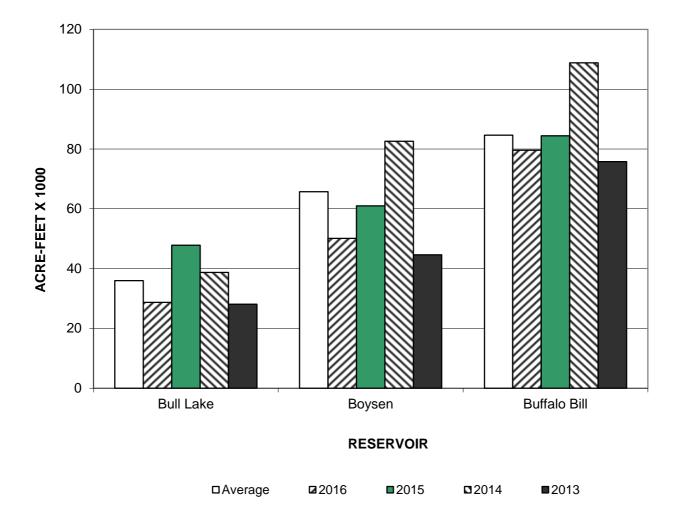
### **BIGHORN RIVER BASIN OUTFLOW**

September releases from Bull Lake, Boysen, and Buffalo Bill were below average.

								(10	000 acre-feet)
	SeptemberSeptemberOutflowHistorical Outflow					Accumulated Outflow (October-September)			
Reservoir	W. Yr. 2016	30 Yr. Avg. 1	% of Avg.	W. Yr. 2015	W. Yr. 2014	W. Yr. 2013	W. Yr. 2016	30 Yr. Avg.	% of Avg.
Bull Lake	28.7	36.0	80	47.8	38.7	28.1	201.7	183.2	110
Boysen	50.1	65.7	76	61.0	82.6	44.6	1080.6	906.0	119
Buffalo Bill	79.6	84.6	94	84.4	108.8	75.8	760.3	856.2	89

<sup>1</sup> Average is based on the 1985-2015 period.

# BIGHORN RIVER BASIN RESERVOIR OUTFLOW September



### BIGHORN RIVER BASIN STORAGE

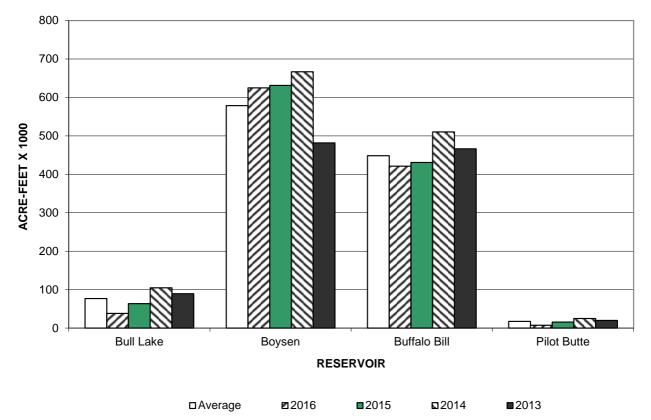
Storage at the end of September was below average at all Bighorn Basin Reservoirs except Boysen Reservoir.

								(1000 acre-feet)
	Т	otal Storag	е	End of September			Total	Percent
	Enc	d of Septem	ber	His	torical Stor	age	Conservation	of
Reservoir	W. Yr.	30 Yr.	% of	W. Yr.	W. Yr.	W. Yr.	Storage	Capacity
	2016	Avg. 1	Avg.	2015	2014	2013	Capacity	
Bull Lake	38.3	76.7	50	63.7	104.8	89.2	152.5	25
Boysen	624.9	578.7	108	631.1	666.8	481.5	741.6	84
Buffalo Bill	421.3	448.3 <sup>2</sup>	94	430.8	510.2	466.4	646.6	65
Pilot Butte	7.4	17.3	43	15.4	25.0	19.8	33.7	22

<sup>1</sup> Average is based on the 1985-2015 period.

<sup>2</sup> 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 2015.

### BIGHORN RIVER BASIN RESERVOIR STORAGE End of September



#### **BIGHORN RIVER BASIN GENERATION**

Generation during September was below average at Boysen, Buffalo Bill, and Shoshone Powerplants.

							()	nergy in gig	a-watt hours)
	September Gross Generation			September Historical Generation			Accumulated Gross Gen. (October-September)		
Powerplant	W. Yr. 2016	Avg.	% of Avg.	W. Yr. 2015	W. Yr. 2014	W. Yr. 2013	W. Yr. 2016	Avg.	% of Avg.
Boysen <sup>1</sup>	4.4	5.4	81	4.9	7.2	1.1	67.8	61.1	111
Pilot Butte <sup>2</sup>	0.0	0.4	0	0.0	0.0	0.0	0.0	2.3	0
Heart Mtn. 3	3.1	2.7	115	2.8	3.3	3.2	18.2	15.0	121
Buffalo Bill <sup>3</sup>	3.3	6.7	49	4.5	12.8	4.0	56.8	68.5	83
Shoshone <sup>3</sup>	1.6	1.9	84	1.6	1.7	1.7	17.0	20.5	83
Spirit Mtn. ⁴	2.9	2.9	100	3.2	3.4	3.3	17.3	15.6	111

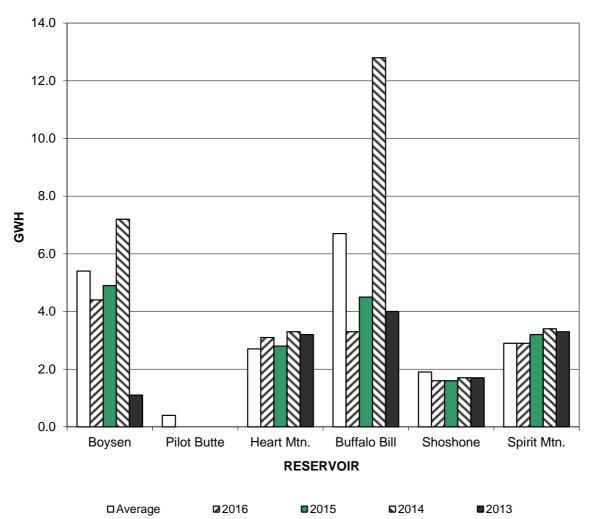
(Energy in giga-watt hours)

<sup>1</sup> Average is based on the 1985-2015 period.

<sup>2</sup> Average is based on the 1990-2015 period. Pilot Butte Powerplant is currently in "mothballed" status and does not generate electricity.

<sup>3</sup> Average is based on the 1993-2015 period.

<sup>4</sup> Average is based on the 1996-2015 period.



BIGHORN RIVER BASIN GROSS GENERATION September