

RECLAMATION

Managing Water in the West

BUFFALO BILL RESERVOIR OPERATIONS

Water Supply Forecasts and Reservoir Operations

Prepared July 2018

End of Month Elevation and Storage: 5,389.58 FT & 615,187 Acre-Feet

Actual Inflows (1,000 Acre-Feet):

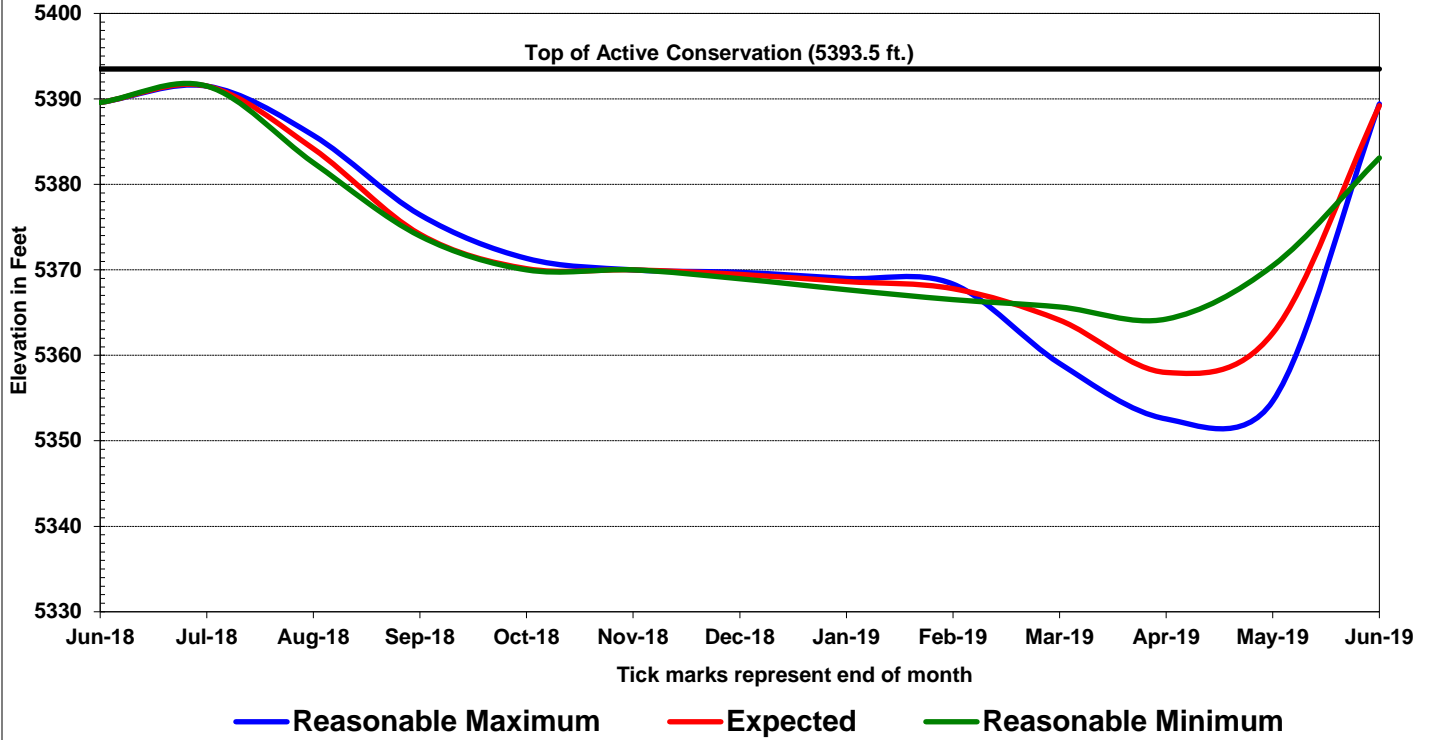
<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
July 17	283.6	177
August 17	61.2	146
September 17	55.0	233
October 17	55.0	214
November 17	49.6	227
December 18	33.3	212
January 18	25.4	172
February 18	17.9	137
March 18	23.8	112
April 18	76.5	167
May 18	451.3	258
June 18	554.1	175



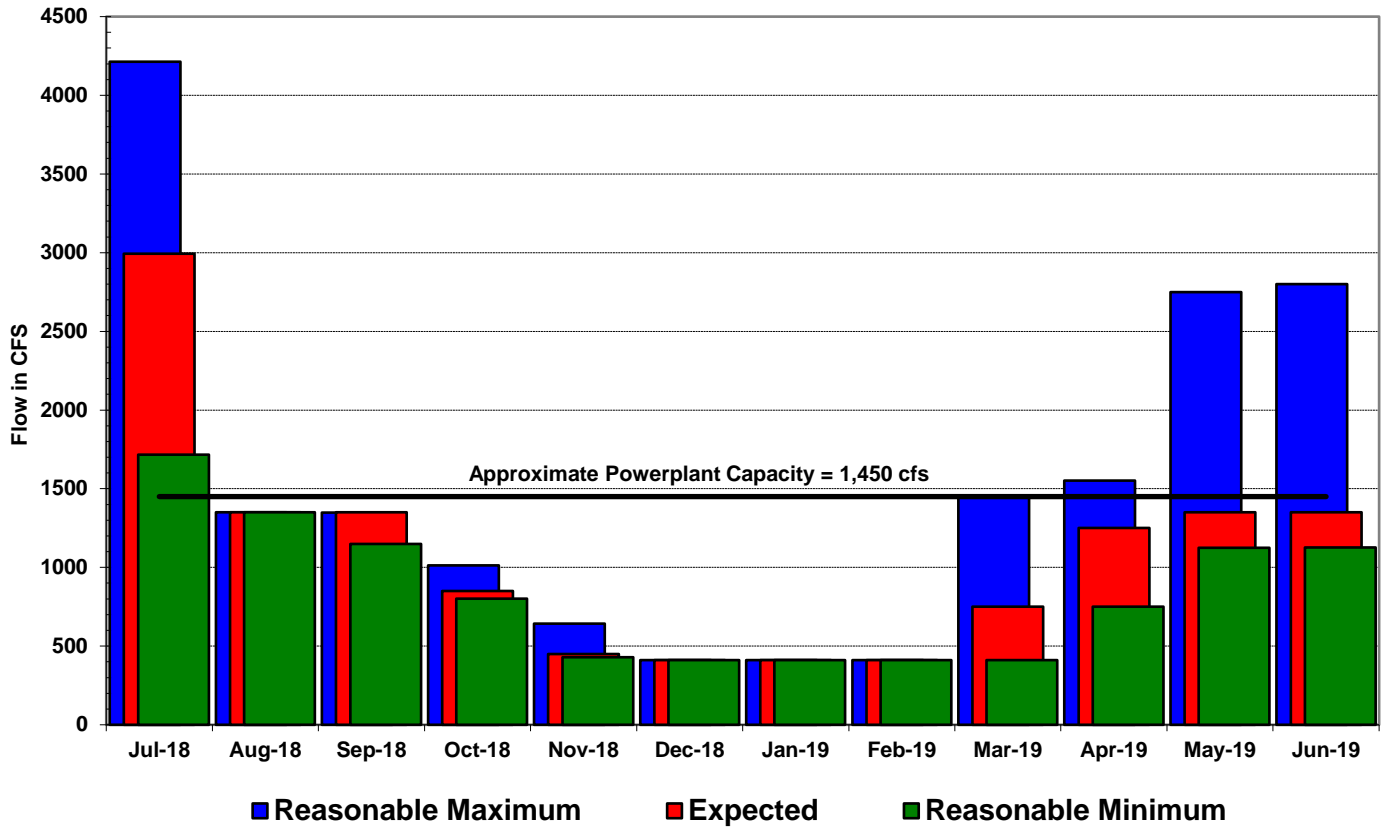
U.S Department of the Interior
Bureau of Reclamation
Great Plains Region
Wyoming Area Office
Mills, Wyoming

Buffalo Bill Reservoir

BUFFALO BILL RESERVOIR ELEVATION



SHOSHONE RIVER FLOW BELOW BUFFALO BILL DAM



BBRAOP V1.04 Run: 02-Jul-2018 15:02
 Based on a reasonable maximum April-July inflow of 1,400 kaf

BUFFALO BILL RESERVOIR MONTHLY OPERATIONS

Buffalo Bill Reservoir		Initial Cont Elev 611.8 kaf 5389.69 ft				Maximum Cont Elev 643.1 kaf 5393.59 ft				Minimum Cont Elev 41.8 kaf 5259.64 ft			
2018		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Monthly Inflow	kaf	318.1	75.3	39.8	29.6	25.3	19.7	16.8	15.1	23.5	55.0	214.7	453.1
Shoshone Release	kaf	11.3	9.6	8.6	6.2	6.0	6.2	6.2	5.6	6.5	12.5	13.2	11.7
Non-Power Release	kaf	173.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.6	15.0	76.4	80.2
Total Flow Below Dam	kaf	184.9	9.6	8.6	6.2	6.0	6.2	6.2	5.6	34.1	27.5	89.6	91.9
Buffalo Bill Release	kaf	51.9	51.1	50.1	33.7	28.6	15.3	15.3	13.9	51.4	52.2	57.2	53.1
Municipal Delivery	kaf	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Heart Mtn Release	kaf	18.6	18.6	18.0	18.6	0.0	0.0	0.0	0.0	0.0	9.0	18.6	18.0
Heart Mtn Delivery	kaf	48.0	41.0	33.0	8.0	0.0	0.0	0.0	0.0	0.0	7.0	36.0	42.0
Total Outflow	kaf	303.7	120.6	110.0	66.8	34.9	21.8	21.8	19.8	85.8	96.0	201.7	205.3
Bypass/Spill	kaf	173.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.6	15.0	76.4	80.2
End-Month Targets	kaf	626.2	580.9	510.7	473.5	463.9	461.8	456.8	452.1	389.8	348.8	361.8	609.6
End-Month Content	kaf	626.2	580.9	510.7	473.5	463.9	461.8	456.8	452.1	389.8	348.8	361.8	609.6
Est Total Storage	kaf	629.6	584.3	514.1	476.9	467.3	465.2	460.2	455.5	393.2	352.2	365.2	613.0
End-Month Elevation	ft	5391.50	5385.73	5376.44	5371.34	5370.00	5369.71	5369.00	5368.34	5359.05	5352.56	5354.65	5389.41
Net Change Content	kaf	14.4	-45.3	-70.2	-37.2	-9.6	-2.1	-5.0	-4.7	-62.3	-41.0	13.0	247.8
Flow Below BB Pwr	kaf	236.8	60.7	58.7	39.9	34.6	21.5	21.5	19.5	85.5	79.7	146.8	145.0
Flow Below BB Pwr	cfs	3851	987	986	649	581	350	350	351	1391	1339	2387	2437
Spring Inflow	kaf	3.7	3.7	3.6	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6
Passing Cody Gage	kaf	259.1	83.0	80.3	62.2	38.2	25.2	25.2	22.8	89.2	92.3	169.1	166.6
Passing Cody Gage	cfs	4214	1350	1349	1012	642	410	410	411	1451	1551	2750	2800

Shoshone Power	2018	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Shoshone Release	kaf	11.3	9.6	8.6	6.2	6.0	6.2	6.2	5.6	6.5	12.5	13.2	11.7
Generation	gwh	2.227	1.904	1.657	1.161	1.109	1.142	1.139	1.026	1.159	2.154	2.238	2.158
Max Generation	gwh	2.232	2.232	2.160	2.232	2.160	2.232	2.232	1.369	1.152	2.160	2.232	2.160
% Max Generation		100	85	77	52	51	51	51	75	101	100	100	100
Ave kwh/af		197	198	193	187	185	184	184	183	178	172	170	184
End-Month Power Cap	mw	3	3	3	3	3	3	3	2	2	3	3	3
Buffalo Bill Power	2018	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Buffalo Bill Release	kaf	51.9	51.1	50.1	33.7	28.6	15.3	15.3	13.9	51.4	52.2	57.2	53.1
Generation	gwh	13.400	13.402	12.949	9.071	7.794	4.193	4.187	3.795	13.386	12.963	13.117	12.961
Max Generation	gwh	13.392	13.392	12.960	13.392	12.960	13.392	13.392	10.947	13.392	12.960	13.392	12.960
% Max Generation		100	100	100	68	60	31	31	35	100	100	98	100
Ave kwh/af		258	262	258	269	273	274	274	273	260	248	229	244
End-Month Power Cap	mw	18	18	18	18	18	18	18	16	18	18	18	18
Spirit Mtn Power	2018	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Spirit Mtn Release	kaf	34.4	34.4	33.3	26.6	0.0	0.0	0.0	0.0	0.0	16.0	34.4	33.3
Generation	gwh	3.225	3.300	3.063	2.701	0.000	0.000	0.000	0.000	0.000	1.310	2.169	2.611
Max Generation	gwh	3.348	3.348	3.240	3.348	3.240	3.348	3.348	0.000	0.000	2.699	3.348	3.240
% Max Generation		96	99	95	81	0	0	0	0	0	49	65	81
Ave kwh/af		94	96	92	102						82	63	78
End-Month Power Cap	mw	5	5	4	4	0	0	0	0	0	2	3	5
Heart Mtn Power	2018	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Heart Mtn Release	kaf	18.6	18.6	18.0	18.6	0.0	0.0	0.0	0.0	0.0	9.0	18.6	18.0
Generation	gwh	4.453	4.453	4.309	4.453	0.000	0.000	0.000	0.000	0.000	2.154	4.453	4.309
Max Generation	gwh	4.464	4.464	4.320	4.464	0.000	0.000	0.000	0.000	0.000	2.160	4.464	4.320
% Max Generation		100	100	100	100	0	0	0	0	0	100	100	100
Ave kwh/af		239	239	239	239						239	239	239
End-Month Power Cap	mw	6	6	6	6	0	0	0	0	0	3	6	6
Total Generation	2018	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Total Generation	gwh	23.305	23.059	21.978	17.386	8.903	5.335	5.326	4.821	14.545	18.581	21.977	22.039
End-month Power Cap	mw	32	32	31	31	21	21	21	18	20	26	30	32