



— BUREAU OF —
RECLAMATION

Buffalo Bill Reservoir Operations

Water Supply Forecasts and Reservoir Operations

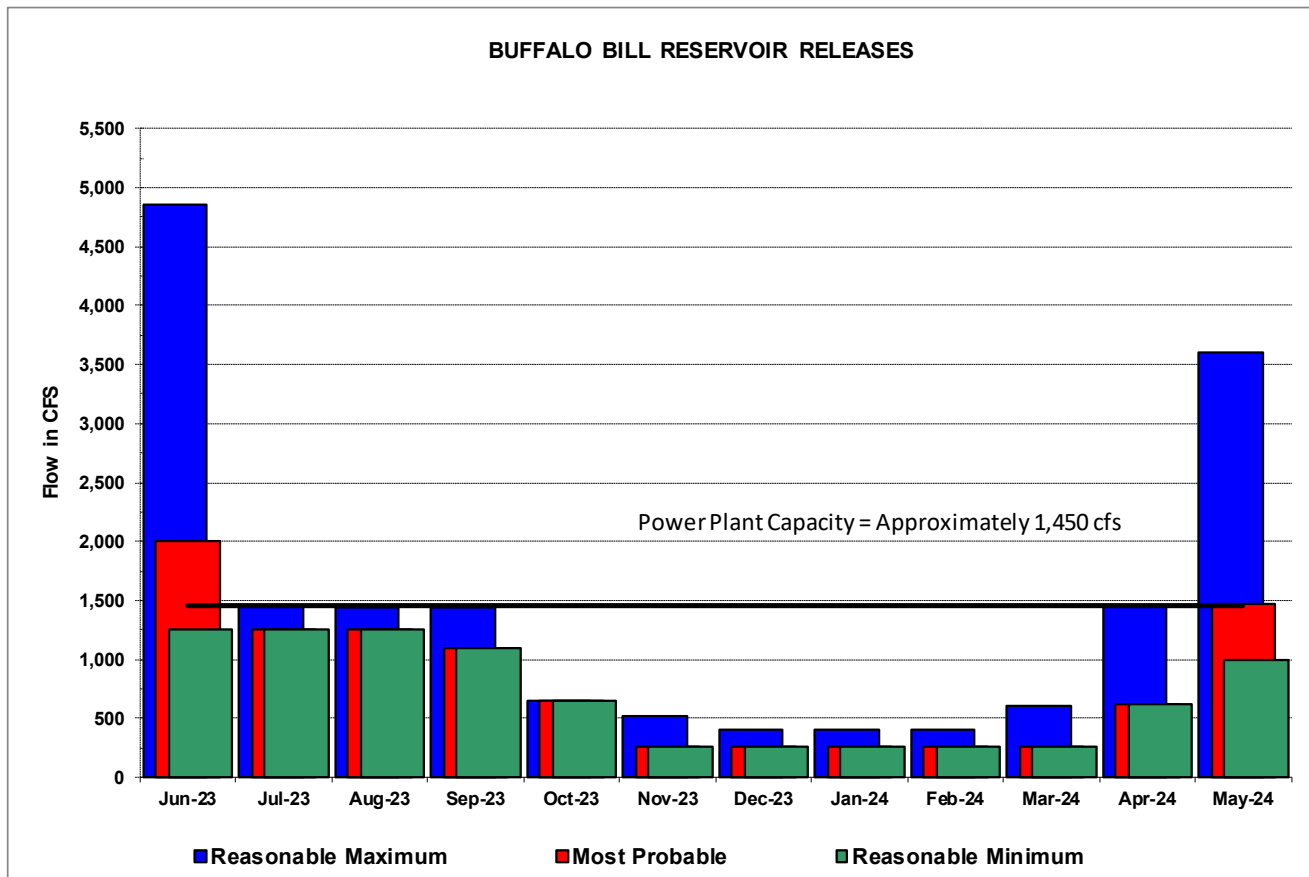
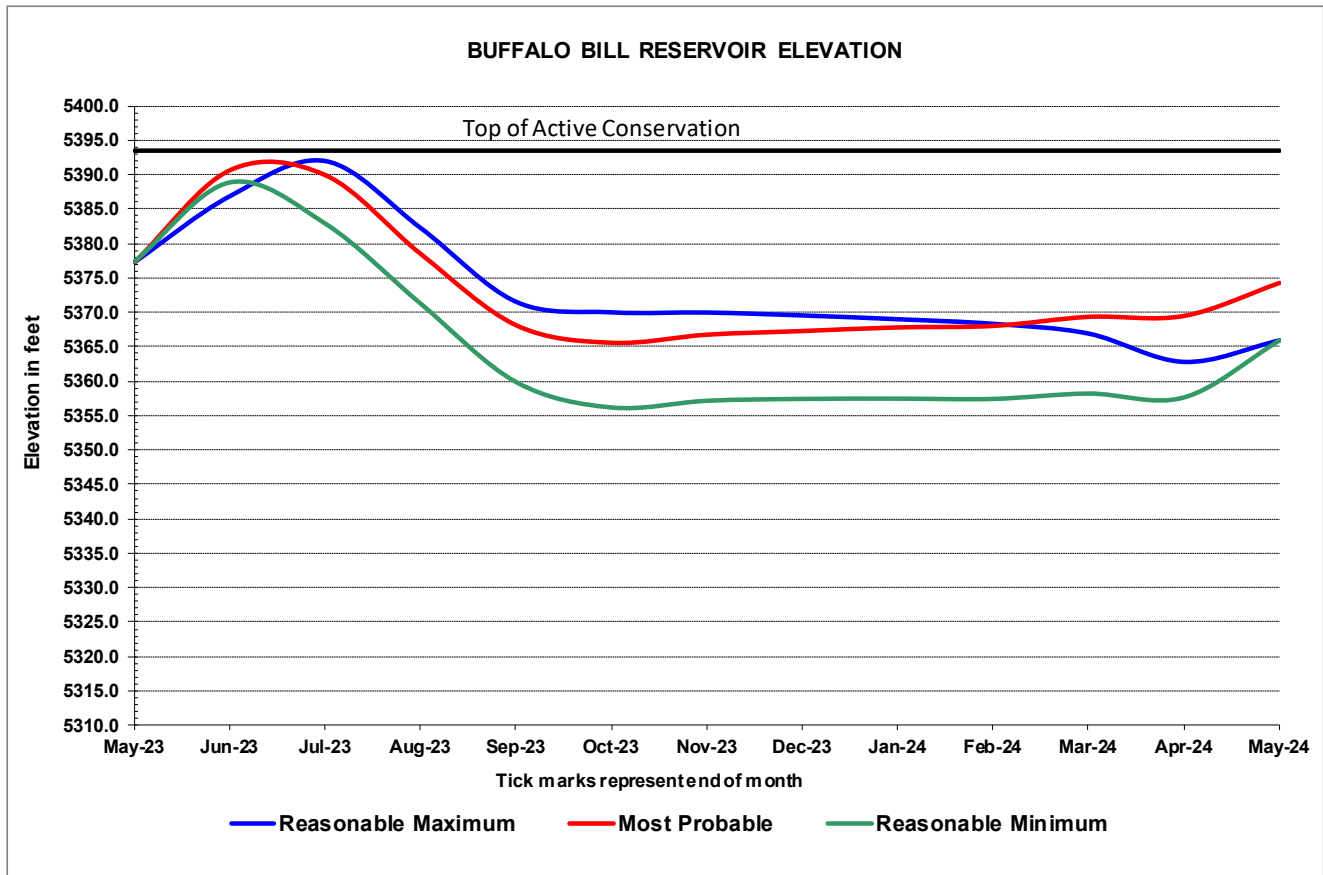
Prepared June 2023

End of May Elevation and Storage: 5377.32 FT & 521,350 Acre-Feet

Actual Inflows (1,000 Acre-Feet):

<u>Month</u>	<u>Inflow</u>	<u>Percent of Normal</u>
June 22	443.3	134
July 22	168.4	97
August 22	49.4	113
September 22	26.7	106
October 22	30.6	106
November 22	20.3	85
December 22	16.6	98
January 23	14.6	94
February 23	12.4	94
March 23	14.8	68
April 23	36.0	79
May 23	243.2	129

BUFFALO BILL RESERVOIR



BBRAOP V1.04 Run: 06-Jun-2023 12:43
Based on a most probable April - July inflow of 639 kaf

BUFFALO BILL RESERVOIR MONTHLY OPERATIONS

Buffalo Bill Reservoir		Initial Cont		518.0 kaf		Maximum Cont		643.1 kaf		Minimum Cont		41.8 kaf		
	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Monthly Inflow	kaf	260.0	100.0	42.0	19.7	26.8	20.4	16.3	16.3	13.4	21.9	41.7	157.2	735.7
Shoshone Release	kaf	11.2	6.2	6.2	6.0	6.2	6.0	6.2	6.2	5.8	6.2	6.0	12.0	84.2
Non-Power Release	kaf	35.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	37.6
Total Flow Below Dam	kaf	47.1	6.2	6.2	6.0	6.2	6.0	6.2	6.2	5.8	6.2	6.0	13.7	121.8
Buffalo Bill Release	kaf	50.6	49.9	50.4	50.0	15.2	5.9	6.1	6.1	5.7	6.1	21.9	54.0	321.9
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	3.6
Heart Mtn Release	kaf	18.0	17.1	16.6	5.9	14.9	0.0	0.0	0.0	0.0	0.0	5.5	18.6	96.6
Heart Mtn Delivery	kaf	42.0	48.0	41.0	33.0	8.0	0.0	0.0	0.0	0.0	0.0	7.0	36.0	215.0
Total Outflow	kaf	158.0	121.5	114.5	95.2	44.6	12.2	12.6	12.6	11.8	12.6	40.7	122.6	758.9
Spill/Waste	kaf	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	34.7
End-Month Targets	kaf	620.0	626.2				463.9					470.0		
End-Month Content	kaf	620.0	598.5	526.0	450.5	432.7	440.9	444.6	448.3	449.9	459.2	460.2	494.8	
Est Total Storage	kaf	623.4	601.9	529.4	453.9	436.1	444.3	448.0	451.7	453.3	462.6	463.6	498.2	
End-Month Elevation	ft	5390.72	5388.00	5378.50	5368.11	5365.56	5366.74	5367.27	5367.80	5368.02	5369.34	5369.48	5374.28	
Net Change Content	kaf	102.0	-21.5	-72.5	-75.5	-17.8	8.2	3.7	3.7	1.6	9.3	1.0	34.6	-23.2
Flow Below BB Pwr	kaf	97.7	56.1	56.6	56.0	21.4	11.9	12.3	12.3	11.5	12.3	27.9	67.7	443.7
Flow Below BB Pwr	cfs	1642	912	921	941	348	200	200	200	200	200	469	1101	
Spring Inflow	kaf	3.6	3.7	3.7	3.6	3.7	3.6	3.7	3.7	3.5	3.7	3.6	3.7	43.8
Passing Cody Gage	kaf	119.3	76.9	76.9	65.5	40.0	15.5	16.0	16.0	15.0	16.0	37.0	90.0	584.1
Passing Cody Gage	cfs	2005	1251	1251	1101	651	260	260	260	261	260	622	1464	
Shoshone Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Shoshone Release	kaf	11.2	6.2	6.2	6.0	6.2	6.0	6.2	6.2	5.8	6.2	6.0	12.0	84.2
Generation	gwh	2.169	1.235	1.206	1.121	1.127	1.088	1.128	1.131	1.059	1.136	1.103	2.223	15.726
Max Generation	gwh	2.160	2.232	2.232	2.160	2.232	2.160	2.232	2.232	2.088	1.562	2.160	2.232	25.682
% Max Generation		100	55	54	52	50	50	51	51	51	73	51	100	
Ave kwh/af		194	199	195	187	182	181	182	182	183	183	184	185	187
End-Month Power Cap	mw	3	3	3	3	3	3	3	3	3	2	3	3	
Buffalo Bill Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Buffalo Bill Release	kaf	50.6	49.9	50.4	50.0	15.2	5.9	6.1	6.1	5.7	6.1	21.9	54.0	321.9
Generation	gwh	12.951	13.024	13.050	12.847	4.086	1.604	1.663	1.666	1.559	1.672	5.936	13.401	83.459
Max Generation	gwh	12.960	13.392	13.392	12.960	12.053	10.368	9.374	10.714	10.022	10.714	12.182	13.392	141.523
% Max Generation		100	97	97	99	34	15	18	16	16	16	49	100	
Ave kwh/af		256	261	259	257	269	272	273	273	274	274	271	248	259
End-Month Power Cap	mw	18	18	18	18	16	14	13	14	14	14	17	18	
Spirit Mtn Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Spirit Mtn Release	kaf	33.3	34.4	34.4	33.3	22.9	0.0	0.0	0.0	0.0	0.0	12.5	34.4	205.2
Generation	gwh	2.998	3.249	3.176	3.008	2.288	0.000	0.000	0.000	0.000	0.000	1.284	2.804	18.807
Max Generation	gwh	3.240	3.348	3.348	3.240	3.348	2.592	2.678	3.348	3.007	3.248	1.296	3.348	36.041
% Max Generation		93	97	95	93	68	0	0	0	0	0	99	84	
Ave kwh/af		90	94	92	90	100						103	82	92
End-Month Power Cap	mw	5	5	4	4	3	0	0	0	0	0	2	4	
Heart Mtn Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Heart Mtn Release	kaf	18.0	17.1	16.6	5.9	14.9	0.0	0.0	0.0	0.0	0.0	5.5	18.6	96.6
Generation	gwh	4.309	4.094	3.974	1.412	3.567	0.000	0.000	0.000	0.000	0.000	1.317	4.453	23.126
Max Generation	gwh	4.320	4.464	4.464	4.320	3.571	0.000	0.000	0.000	0.000	0.000	1.728	4.464	27.331
% Max Generation		100	92	89	33	100	0	0	0	0	0	76	100	
Ave kwh/af		239	239	239	239	239						239	239	239
End-Month Power Cap	mw	6	6	6	6	5	0	0	0	0	0	2	6	
Total Generation	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Total Generation	gwh	22.427	21.602	21.406	18.388	11.068	2.692	2.791	2.797	2.618	2.808	9.640	22.881	141.118
End-month Power Cap	mw	32	32	31	31	27	17	16	17	17	16	24	31	

BBRAOP V1.04 Run: 06-Jun-2023 12:43
Based on reasonable minimum April-July inflow of 554 kaf

BUFFALO BILL RESERVOIR MONTHLY OPERATIONS

Buffalo Bill Reservoir		Initial Cont		518.0 kaf		Maximum Cont		643.1 kaf		Minimum Cont		41.8 kaf		
	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Monthly Inflow	kaf	200.0	75.0	28.2	17.4	21.0	18.4	14.3	12.9	11.5	17.6	37.1	148.6	602.0
Shoshone Release	kaf	6.0	6.2	6.2	6.0	6.2	6.0	6.2	6.1	5.8	6.1	6.0	6.2	73.0
Non-Power Release	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Flow Below Dam	kaf	6.0	6.2	6.2	6.0	6.2	6.0	6.2	6.1	5.8	6.1	6.0	6.2	73.0
Buffalo Bill Release	kaf	49.0	50.5	51.6	51.5	15.3	5.9	6.1	6.2	5.7	6.2	21.1	51.6	320.7
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	3.6
Heart Mtn Release	kaf	15.8	16.5	15.4	4.4	14.8	0.0	0.0	0.0	0.0	0.0	6.3	0.0	73.2
Heart Mtn Delivery	kaf	42.0	48.0	41.0	33.0	8.0	0.0	0.0	0.0	0.0	0.0	7.0	36.0	215.0
Total Outflow	kaf	113.1	121.5	114.5	95.2	44.6	12.2	12.6	12.6	11.8	12.6	40.7	94.1	685.5
Spill/Waste	kaf	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
End-Month Targets	kaf	626.2	626.2		475.0		463.9					463.9	550.0	
End-Month Content	kaf	604.9	558.4	472.1	394.3	370.7	376.9	378.6	378.9	378.6	383.6	380.0	434.5	
Est Total Storage	kaf	608.3	561.8	475.5	397.7	374.1	380.3	382.0	382.3	382.0	387.0	383.4	437.9	
End-Month Elevation	ft	5388.81	5382.80	5371.15	5359.75	5356.06	5357.04	5357.31	5357.35	5357.31	5358.09	5357.53	5365.82	
Net Change Content	kaf	86.9	-46.5	-86.3	-77.8	-23.6	6.2	1.7	0.3	-0.3	5.0	-3.6	54.5	-83.5
Flow Below BB Pwr	kaf	55.0	56.7	57.8	57.5	21.5	11.9	12.3	12.3	11.5	12.3	27.1	57.8	393.7
Flow Below BB Pwr	cfs	924	922	940	966	350	200	200	200	200	200	455	940	
Spring Inflow	kaf	3.6	3.7	3.7	3.6	3.7	3.6	3.7	3.7	3.5	3.7	3.6	3.7	43.8
Passing Cody Gage	kaf	74.4	76.9	76.9	65.5	40.0	15.5	16.0	16.0	15.0	16.0	37.0	61.5	510.7
Passing Cody Gage	cfs	1250	1251	1251	1101	651	260	260	260	261	260	622	1000	
Shoshone Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Shoshone Release	kaf	6.0	6.2	6.2	6.0	6.2	6.0	6.2	6.1	5.8	6.1	6.0	6.2	73.0
Generation	gwh	1.166	1.218	1.176	1.085	1.085	1.044	1.081	1.065	1.012	1.066	1.049	1.103	13.150
Max Generation	gwh	2.160	2.232	2.232	2.160	2.232	2.160	2.232	2.232	2.088	1.562	2.160	2.232	25.682
% Max Generation		54	55	53	50	49	48	48	48	48	68	49	49	
Ave kwh/af		194	196	190	181	175	174	174	175	174	175	175	178	180
End-Month Power Cap	mw	3	3	3	3	3	3	3	3	3	2	3	3	
Buffalo Bill Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Buffalo Bill Release	kaf	49.0	50.5	51.6	51.5	15.3	5.9	6.1	6.2	5.7	6.2	21.1	51.6	320.7
Generation	gwh	12.628	13.020	13.072	12.874	3.993	1.555	1.611	1.638	1.506	1.640	5.505	12.814	81.856
Max Generation	gwh	12.960	13.392	13.392	12.960	12.053	10.368	9.374	10.714	10.022	10.714	12.182	13.392	141.523
% Max Generation		97	97	98	99	33	15	17	15	15	15	45	96	
Ave kwh/af		258	258	253	250	261	264	264	264	264	265	261	248	255
End-Month Power Cap	mw	18	18	18	18	16	14	13	14	14	14	17	18	
Spirit Mtn Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Spirit Mtn Release	kaf	33.3	34.4	34.4	33.3	22.8	0.0	0.0	0.0	0.0	0.0	13.3	34.4	205.9
Generation	gwh	3.033	3.136	2.977	2.770	2.090	0.000	0.000	0.000	0.000	0.000	1.223	2.797	18.026
Max Generation	gwh	3.240	3.348	3.348	3.240	3.348	2.592	2.678	3.348	3.007	1.741	1.296	3.348	34.534
% Max Generation		94	94	89	85	62	0	0	0	0	0	94	84	
Ave kwh/af		91	91	87	83	92						92	81	88
End-Month Power Cap	mw	5	4	4	4	3	0	0	0	0	0	2	4	
Heart Mtn Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Heart Mtn Release	kaf	15.8	16.5	15.4	4.4	14.8	0.0	0.0	0.0	0.0	0.0	6.3	0.0	73.2
Generation	gwh	3.782	3.950	3.687	1.053	3.543	0.000	0.000	0.000	0.000	0.000	1.508	0.000	17.523
Max Generation	gwh	4.320	4.464	4.464	4.320	3.571	0.000	0.000	0.000	0.000	0.000	1.728	4.464	27.331
% Max Generation		88	88	83	24	99	0	0	0	0	0	87	0	
Ave kwh/af		239	239	239	239	239						239		239
End-Month Power Cap	mw	6	6	6	6	5	0	0	0	0	0	2	6	
Total Generation	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Total Generation	gwh	20.609	21.324	20.912	17.782	10.711	2.599	2.692	2.703	2.518	2.706	9.285	16.714	130.555
End-month Power Cap	mw	32	31	31	31	27	17	16	17	17	16	24	31	

BBRAOP V1.04 Run: 06-Jun-2023 12:43
Based on reasonable maximum April - July inflow of 829 kaf

BUFFALO BILL RESERVOIR MONTHLY OPERATIONS

Buffalo Bill Reservoir		Initial Cont		518.0 kaf		Maximum Cont		643.1 kaf		Minimum Cont		41.8 kaf		Total
2023		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	
Monthly Inflow	kaf	400.0	150.0	74.2	36.0	33.7	27.5	18.8	17.9	15.7	23.5	62.1	275.0	1134.4
Shoshone Release	kaf	11.3	11.3	11.4	11.4	6.2	7.7	8.0	8.0	7.5	8.0	12.0	12.6	115.4
Non-Power Release	kaf	205.0	3.6	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	16.4	130.4	360.1
Total Flow Below Dam	kaf	216.3	14.9	14.5	13.0	6.2	7.7	8.0	8.0	7.5	8.0	28.4	143.0	475.5
Buffalo Bill Release	kaf	51.4	52.0	51.7	51.0	15.3	19.7	13.5	13.5	12.6	25.2	47.1	56.0	409.0
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	3.6
Heart Mtn Release	kaf	18.0	18.6	18.6	18.0	14.8	0.0	0.0	0.0	0.0	0.0	7.2	18.6	113.8
Heart Mtn Delivery	kaf	42.0	48.0	41.0	33.0	8.0	0.0	0.0	0.0	0.0	0.0	7.0	36.0	215.0
Total Outflow	kaf	328.0	133.8	126.1	115.3	44.6	27.7	21.8	21.8	20.4	33.5	90.0	253.9	1216.9
Spill/Waste	kaf	203.0	0.0	3.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.3	306.0
End-Month Targets	kaf	590.0	626.3		475.0		463.9	470.0	470.0	470.0	470.0	475.0		
End-Month Content	kaf	590.0	606.2	554.3	475.0	464.1	463.9	460.9	457.0	452.3	442.3	414.4	435.5	
Est Total Storage	kaf	593.4	609.6	557.7	478.4	467.5	467.3	464.3	460.4	455.7	445.7	417.8	438.9	
End-Month Elevation	ft	5386.91	5388.98	5382.26	5371.55	5370.03	5370.00	5369.58	5369.03	5368.36	5366.94	5362.83	5365.96	
Net Change Content	kaf	72.0	16.2	-51.9	-79.3	-10.9	-0.2	-3.0	-3.9	-4.7	-10.0	-27.9	21.1	-82.5
Flow Below BB Pwr	kaf	267.7	66.9	66.2	64.0	21.5	27.4	21.5	21.5	20.1	33.2	75.5	199.0	884.5
Flow Below BB Pwr	cfs	4499	1088	1077	1076	350	460	350	350	349	540	1269	3236	
Spring Inflow	kaf	3.6	3.7	3.7	3.6	3.7	3.6	3.7	3.7	3.5	3.7	3.6	3.7	43.8
Passing Cody Gage	kaf	289.3	89.2	88.5	85.6	40.0	31.0	25.2	25.2	23.6	36.9	86.3	221.3	1042.1
Passing Cody Gage	cfs	4862	1451	1439	1439	651	521	410	410	410	600	1450	3599	
Shoshone Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Shoshone Release	kaf	11.3	11.3	11.4	11.4	6.2	7.7	8.0	8.0	7.5	8.0	12.0	12.6	115.4
Generation	gwh	2.151	2.232	2.232	2.157	1.146	1.418	1.472	1.469	1.373	1.459	2.151	2.234	21.494
Max Generation	gwh	2.160	2.232	2.232	2.160	2.232	2.160	2.232	2.232	2.088	1.562	2.160	2.232	25.682
% Max Generation		100	100	100	100	51	66	66	66	66	93	100	100	
Ave kwh/af		190	198	196	189	185	184	184	184	183	182	179	177	186
End-Month Power Cap	mw	3	3	3	3	3	3	3	3	3	2	3	3	
Buffalo Bill Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Buffalo Bill Release	kaf	51.4	52.0	51.7	51.0	15.3	19.7	13.5	13.5	12.6	25.2	47.1	56.0	409.0
Generation	gwh	12.957	13.397	13.401	12.965	4.166	5.387	3.701	3.696	3.443	6.820	12.190	13.384	105.507
Max Generation	gwh	12.960	13.392	13.392	12.960	12.053	10.368	9.374	10.714	10.022	10.714	12.182	13.392	141.523
% Max Generation		100	100	100	100	35	52	39	34	34	64	100	100	
Ave kwh/af		252	258	259	254	272	273	274	274	273	271	259	239	258
End-Month Power Cap	mw	18	18	18	18	16	14	13	14	14	14	17	18	
Spirit Mtn Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Spirit Mtn Release	kaf	33.3	34.4	34.4	33.3	22.8	0.0	0.0	0.0	0.0	0.0	13.3	34.4	205.9
Generation	gwh	2.923	3.139	3.195	2.921	2.361	0.000	0.000	0.000	0.000	0.000	1.229	2.533	18.301
Max Generation	gwh	3.240	3.348	3.348	3.240	3.348	2.592	2.678	3.348	3.007	1.741	1.296	3.348	34.534
% Max Generation		90	94	95	90	71	0	0	0	0	0	95	76	
Ave kwh/af		88	91	93	88	104						92	74	89
End-Month Power Cap	mw	5	5	5	4	3	0	0	0	0	0	2	4	
Heart Mtn Power	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Heart Mtn Release	kaf	18.0	18.6	18.6	18.0	14.8	0.0	0.0	0.0	0.0	0.0	7.2	18.6	113.8
Generation	gwh	4.309	4.453	4.453	4.309	3.543	0.000	0.000	0.000	0.000	0.000	1.724	4.453	27.244
Max Generation	gwh	4.320	4.464	4.464	4.320	3.571	0.000	0.000	0.000	0.000	0.000	1.728	4.464	27.331
% Max Generation		100	100	100	100	99	0	0	0	0	0	100	100	
Ave kwh/af		239	239	239	239	239						239	239	239
End-Month Power Cap	mw	6	6	6	6	5	0	0	0	0	0	2	6	
Total Generation	2023	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Total Generation	gwh	22.340	23.221	23.281	22.352	11.216	6.805	5.173	5.165	4.816	8.279	17.294	22.604	172.546
End-month Power Cap	mw	32	32	32	31	27	17	16	17	17	16	24	31	