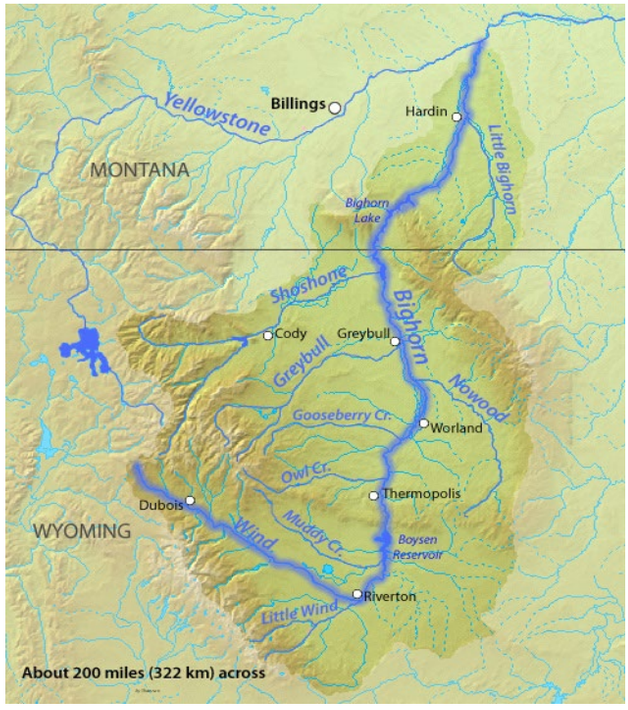
Yellowtail Dam Water Supply and Projected Operations

BUREAU OF RECLAMATION

August 2025



Bighorn River Basin Map Source: DEMIS Mapserver

August Operating Range			
Forecast	**Minimum**	**Median**	**Maximum**
Monthly Average Inflow (cfs)	1,710	1,925	2,645
Monthly Average River Release (cfs)	2,000	2,000	2,000
End of August Elevation (feet)	3625.9	3627.5	3632.5

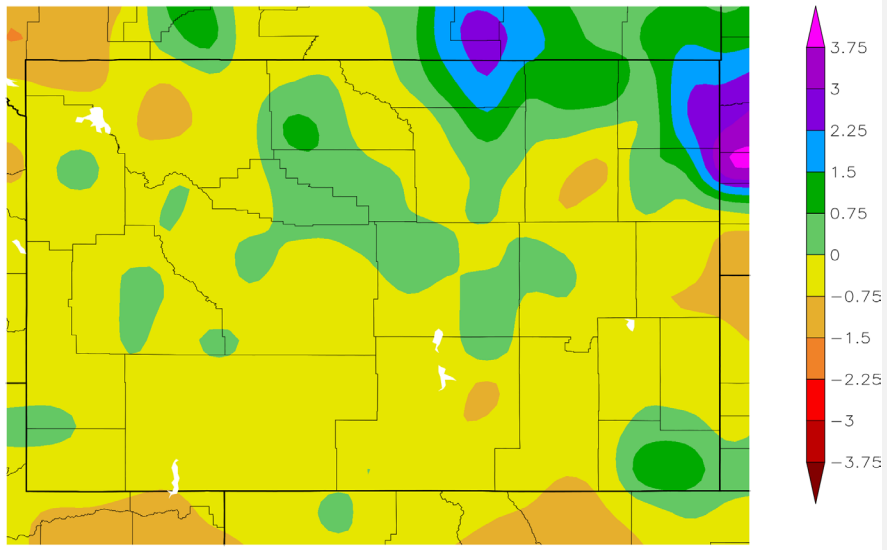
August 2025 Inflow Forecast (kaf)		
August Volume		119
Percent of Average		74
Water Year	**Historical Inflow**	**Rank**
2024	155	13
2023	229	5
2022	150	15
2021	141	17
30 Year Average	160	

Climate Departure from Normal

July 1 through July 31, 2025

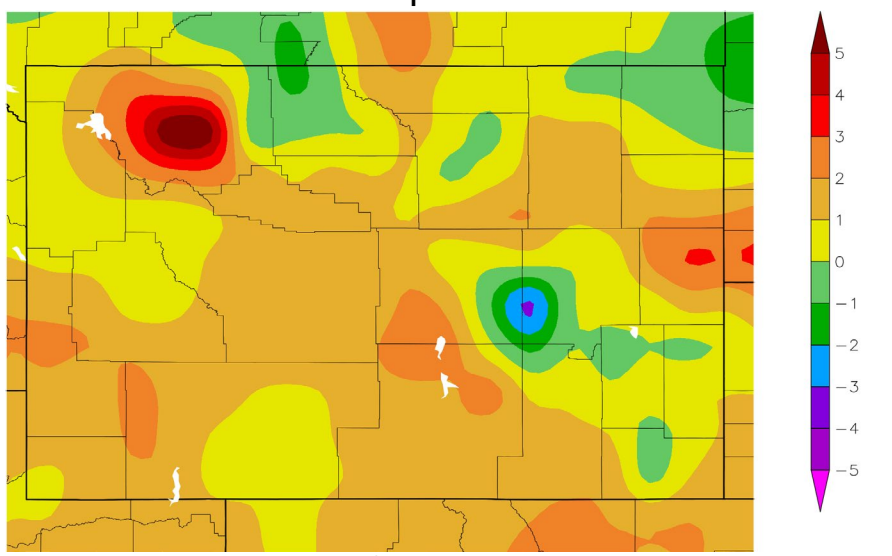
Precipitation

Departure from Normal (inches)



Departure from Normal (°F)

Temperature



HPRCC using provisional data from NOAA Regional Climate Centers

CLIMATE SUMMARY

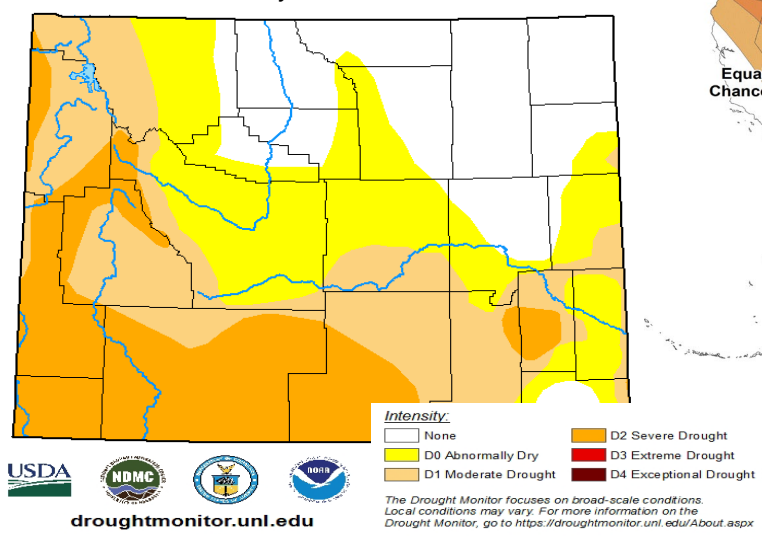
Precipitation in the Bighorn River basin above Yellowtail Dam was above average in the valleys and below average in the rest of the basin during July. The average temperature for July was above average for the basin.

Based on the climate outlook for August, there is an equal chance that precipitation will be either below, near or above average. There is a 33 to 50 percent chance the temperature will be above average.

Drought conditions in the Bighorn River basin range from none to severe.

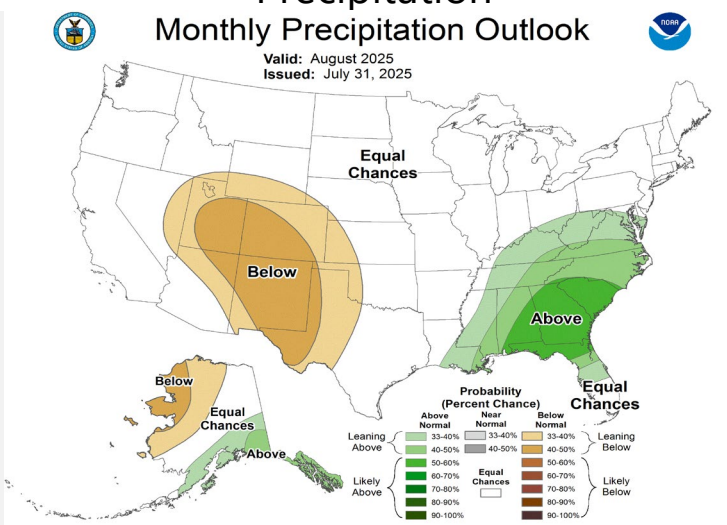
Wyoming Drought Monitor Map

July 29, 2025

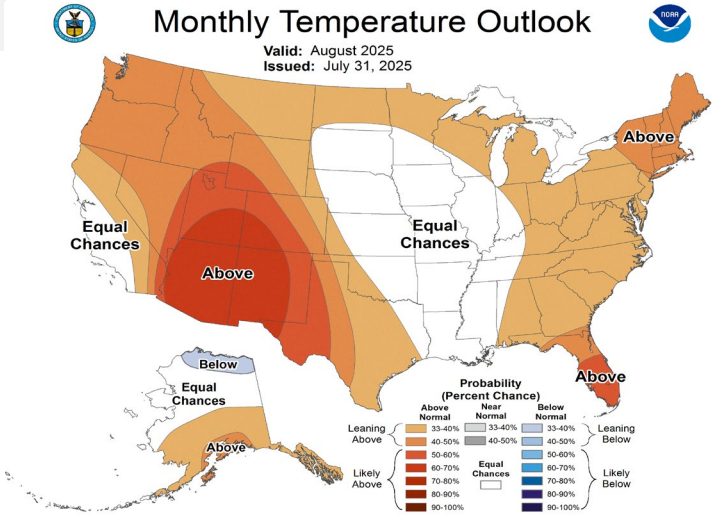


August Climate Outlook

Precipitation



Temperature

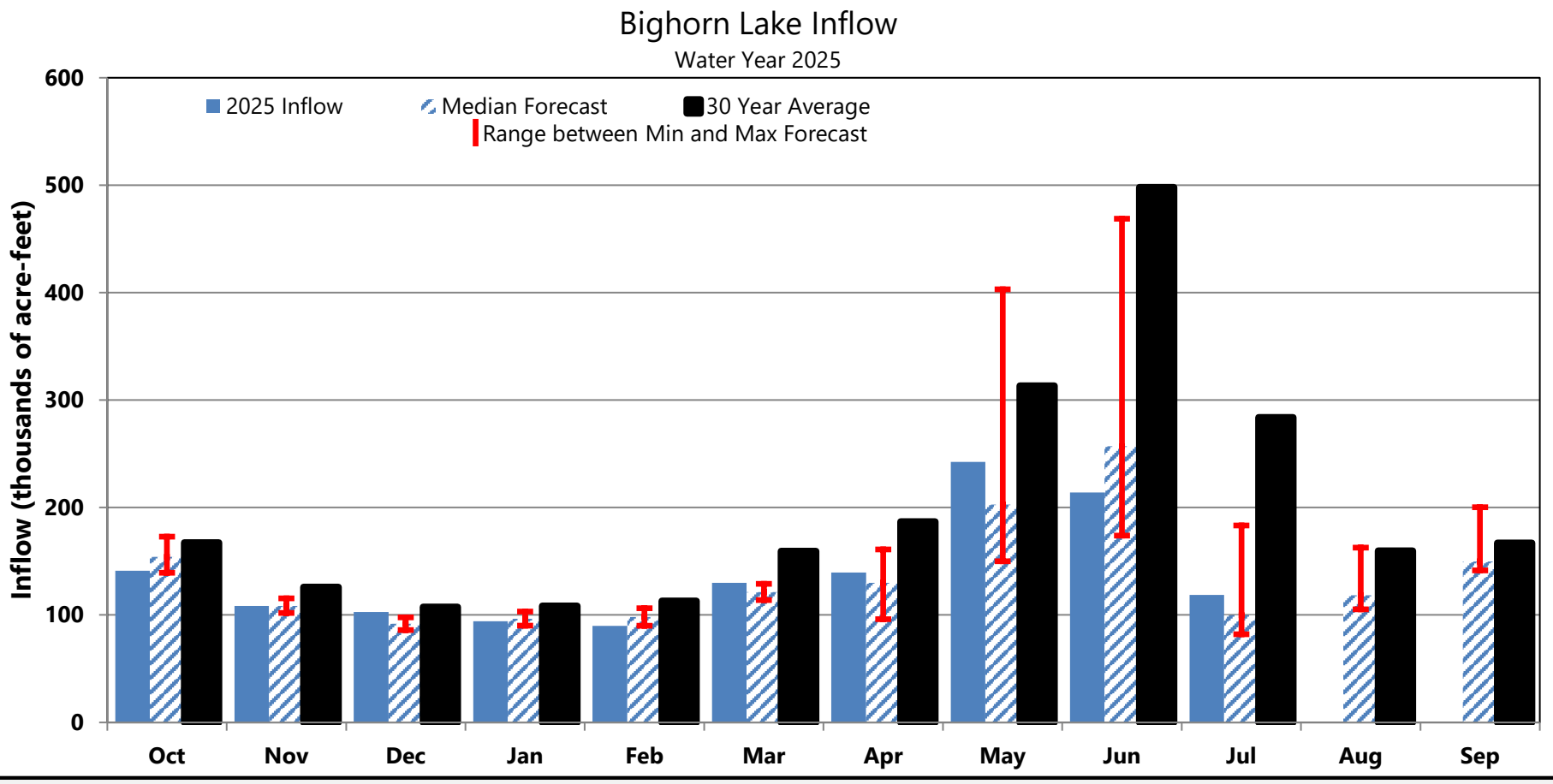


FORECAST SUMMARY

NRCS SNOTEL data, streamflow data, climate data, and planned releases from Boysen and Buffalo Bill Reservoirs are used to compute an inflow forecast for Bighorn Lake. Actual July inflows were greater than the mean inflow forecast.

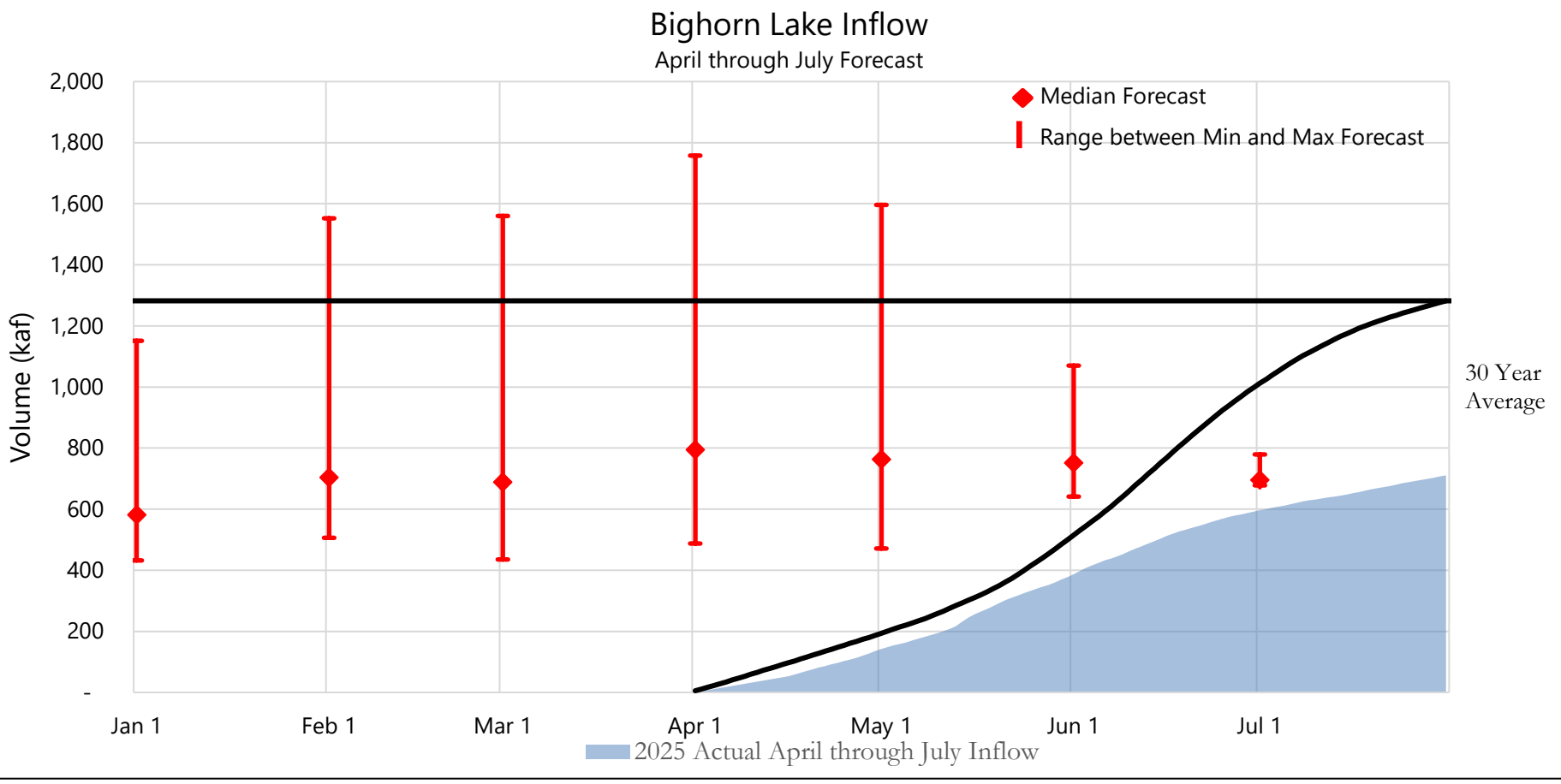
July Forecast Review

	Median Forecast (kaf)	Actual (kaf)	Difference (kaf)	Actual (% of Avg)
July Inflow	99.8	118.7	18.9	42



April through July Inflow Forecast Review

April through July Inflow	715 kaf	**30 Year Average**	1,282 kaf	**Percent of Average**	56

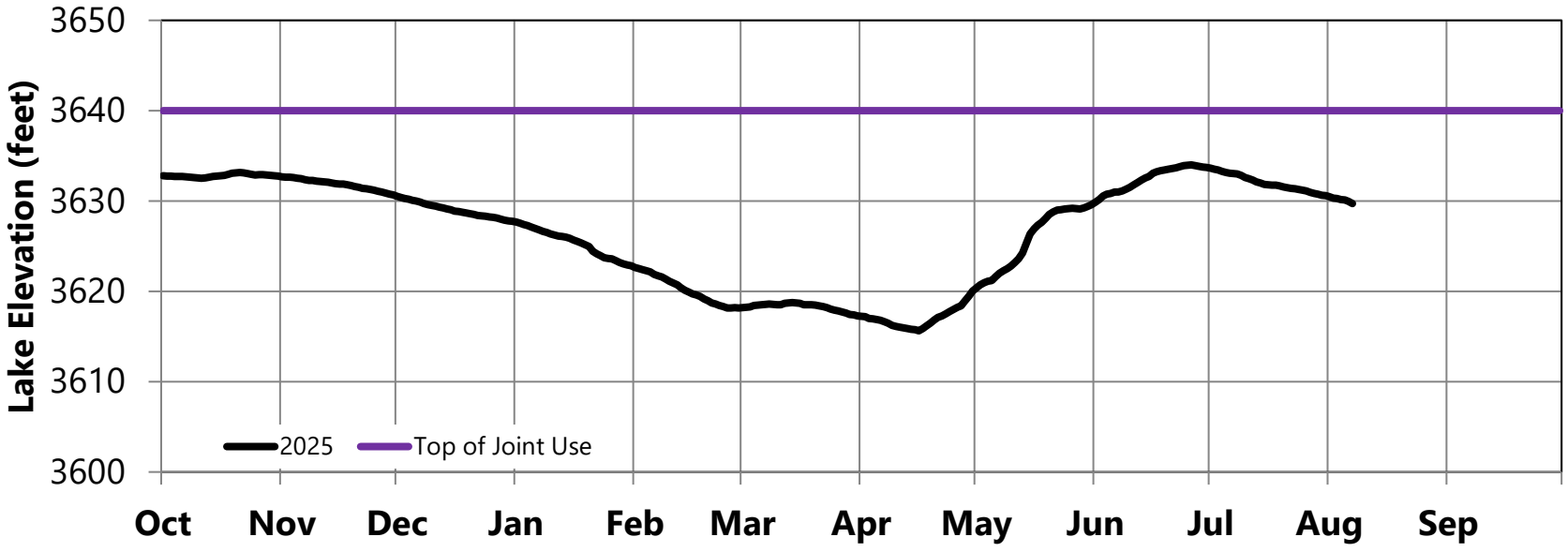


OPERATIONS REVIEW (October 1, 2024 through July 31, 2025)

Releases to the Bighorn River decreased from 2,250 cfs to 2,000 cfs during July based on the forecasted inflows. For 12 hours on July 28-29 releases were decreases to 1,500 cfs for a search and rescue mission. The elevation of Bighorn Lake decreased by 3.1 feet during July.

August 1 Storage Conditions

	Elevation feet	Storage acre-feet	Percent of Average	Percent Full
Bighorn Lake	3630.6	901,904	99	89
Buffalo Bill	5378.5	530,217	90	82
Boysen	4716.4	587,344	95	79

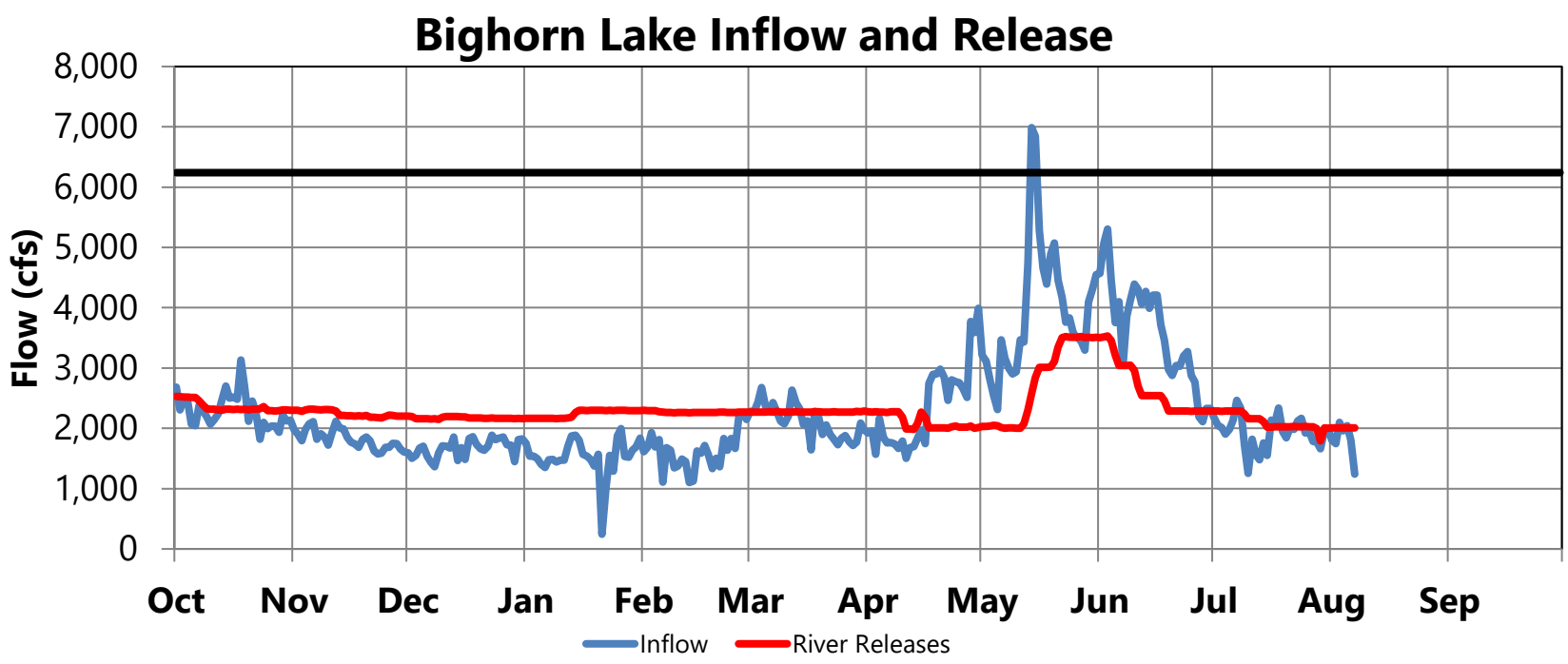


Average July Inflow

	Monthly Avg cfs	Percent of Average
Bighorn Lake	1,930	42
Buffalo Bill	1,155	40
Boysen	605	27

Average July Release

	Monthly Avg cfs	Percent of Average
Bighorn River	2,110	46
Buffalo Bill Total Release	2,175	74
Boysen Release	1,150	44



OPERATIONS OUTLOOK (August 1, 2025 through March 31, 2026)

The next Bighorn Lake storage targets used for setting releases from Yellowtail Dam are the end of October storage target of 3635 to 3640 feet and the end of March 2026 storage target of 3617 feet. The end of October target is only achieved when river releases of 2,500 cfs or greater can be maintained through March. Since the end of October target cannot be achieved, the end of March target was used to set releases. On March 1, the storage target transitions to April 30 based on forecasted April through July runoff.

Median Inflow Conditions

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Boysen Release (cfs)	1,200	1,000	899	600	600	600	600	600
Buffalo Bill Release (cfs)	1,929	1,593	792	203	203	203	203	203
Tributary Gain (cfs)	-1,202	-77	842	864	543	615	789	1,010
Monthly Inflow (cfs)	1,927	2,516	2,533	1,667	1,346	1,418	1,592	1,813
Monthly Inflow (kaf)	118.5	149.7	155.8	99.2	82.8	87.2	88.4	111.5
Monthly Release (kaf)	150.6	136.9	123.0	123.5	127.6	127.6	115.2	144.8
Afterbay Release (cfs)	2,450	2,300	2,000	2,075	2,075	2,075	2,075	2,355
River Release (cfs)	2,000	2,000	2,000	2,075	2,075	2,075	2,075	2,355
End-of-Month Content (kaf)	874.1	891.1	928.2	908.0	867.5	831.4	808.5	779.4
End-of-Month Elevation (feet)	3627.5	3629.4	3633.2	3631.2	3626.7	3622.1	3618.8	3614.2

Minimum Inflow Conditions

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Boysen Release (cfs)	1,200	1,000	899	600	600	600	600	600
Buffalo Bill Release (cfs)	1,862	1,600	725	155	155	155	157	155
Tributary Gain (cfs)	-1,350	-222	729	847	529	599	767	992
Monthly Inflow (cfs)	1,712	2,378	2,353	1,602	1,284	1,354	1,524	1,747
Monthly Inflow (kaf)	105.3	141.5	144.7	95.3	78.9	83.2	84.6	107.4
Monthly Release (kaf)	150.6	136.9	125.5	112.5	116.2	116.2	105.0	104.5
Afterbay Release (cfs)	2,450	2,300	2,041	1,890	1,890	1,890	1,890	1,700
River Release (cfs)	2,000	2,000	2,000	1,890	1,890	1,890	1,890	1,700
End-of-Month Content (kaf)	860.8	869.7	893.1	880.2	847.2	818.5	802.1	809.3
End-of-Month Elevation (feet)	3625.9	3627.0	3629.7	3628.2	3624.2	3620.3	3617.8	3618.9

Maximum Inflow Conditions

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Boysen Release (cfs)	1,200	1,101	899	600	600	600	600	1,800
Buffalo Bill Release (cfs)	1,961	1,699	974	205	205	205	205	542
Tributary Gain (cfs)	-516	566	1,293	946	612	691	895	1,098
Monthly Inflow (cfs)	2,645	3,366	3,166	1,751	1,417	1,496	1,700	3,440
Monthly Inflow (kaf)	162.7	200.3	194.7	104.2	87.1	92.0	94.4	211.5
Monthly Release (kaf)	147.6	172.6	164.2	158.9	164.2	164.2	148.3	233.9
Afterbay Release (cfs)	2,400	2,900	2,670	2,670	2,670	2,670	2,670	3,805
River Release (cfs)	2,000	2,650	2,670	2,670	2,670	2,670	2,670	3,805
End-of-Month Content (kaf)	921.3	953.2	988.0	937.5	864.7	796.8	746.9	728.7
End-of-Month Elevation (feet)	3632.5	3635.4	3638.3	3634.0	3626.4	3617.0	3608.4	3605.0

OPERATIONS OUTLOOK (August 1, 2025 through March 31, 2026)

There is approximately 70 cfs of gain between Yellowtail Dam and Yellowtail Afterbay Dam from springs flowing into Yellowtail Afterbay. Total release from Yellowtail Dam is 70 cfs less than total release from Yellowtail Afterbay Dam. Yellowtail Powerplant will be restricted to two units from August 18 through September 12 for transformer maintenance.

Irrigation Demands Outlook

Bighorn Canal (cfs)

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Median Forecast	450	300	0	0	0	0	0	0
Minimum Forecast	450	300	41	0	0	0	0	0
Maximum Forecast	400	250	0	0	0	0	0	0

Power Generation Outlook

Current Number of Units Available: 4 of 4
Approximate Yellowtail Powerplant Turbine Capacity: 8,200 cfs
Approximate Yellowtail Powerplant Scheduled Generation Limit: 6,240 cfs

Yellowtail Powerplant Release (cfs)

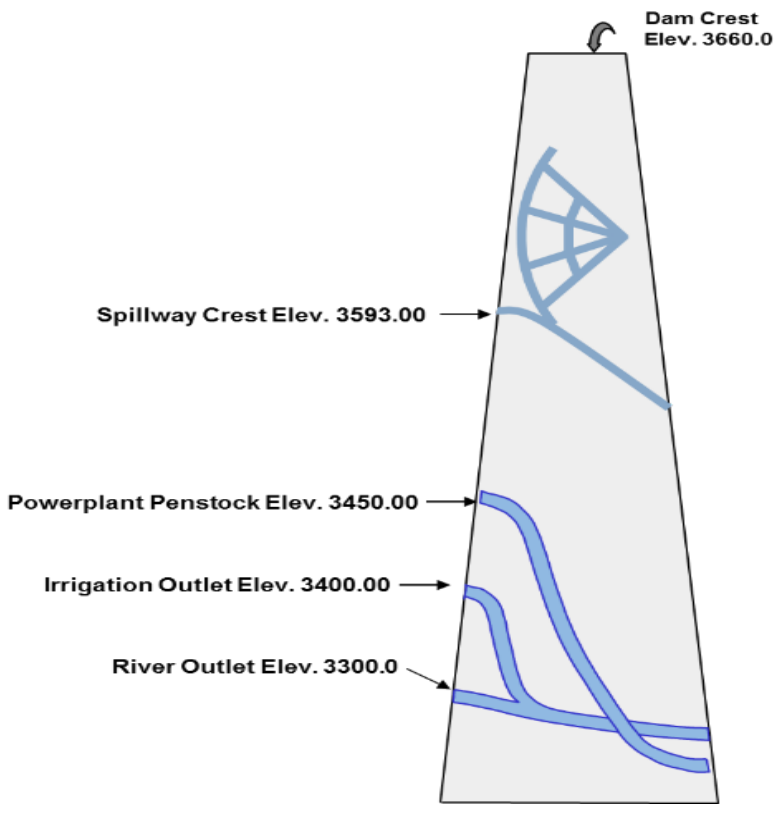
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Median Forecast	2,380	2,230	1,930	2,005	2,005	2,005	2,005	2,285
Minimum Forecast	2,380	2,230	1,971	1,820	1,820	1,820	1,820	1,630
Maximum Forecast	2,330	2,830	2,600	2,600	2,600	2,600	2,600	3,735

Yellowtail Powerplant Generation (gwh)

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Median Forecast	54	49	44	44	45	45	41	52
Minimum Forecast	54	49	44	40	41	41	37	37
Maximum Forecast	53	62	59	57	59	59	53	84

Yellowtail Spill (cfs)

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Median Forecast	0	0	0	0	0	0	0	0
Minimum Forecast	0	0	0	0	0	0	0	0
Maximum Forecast	0	0	0	0	0	0	0	0

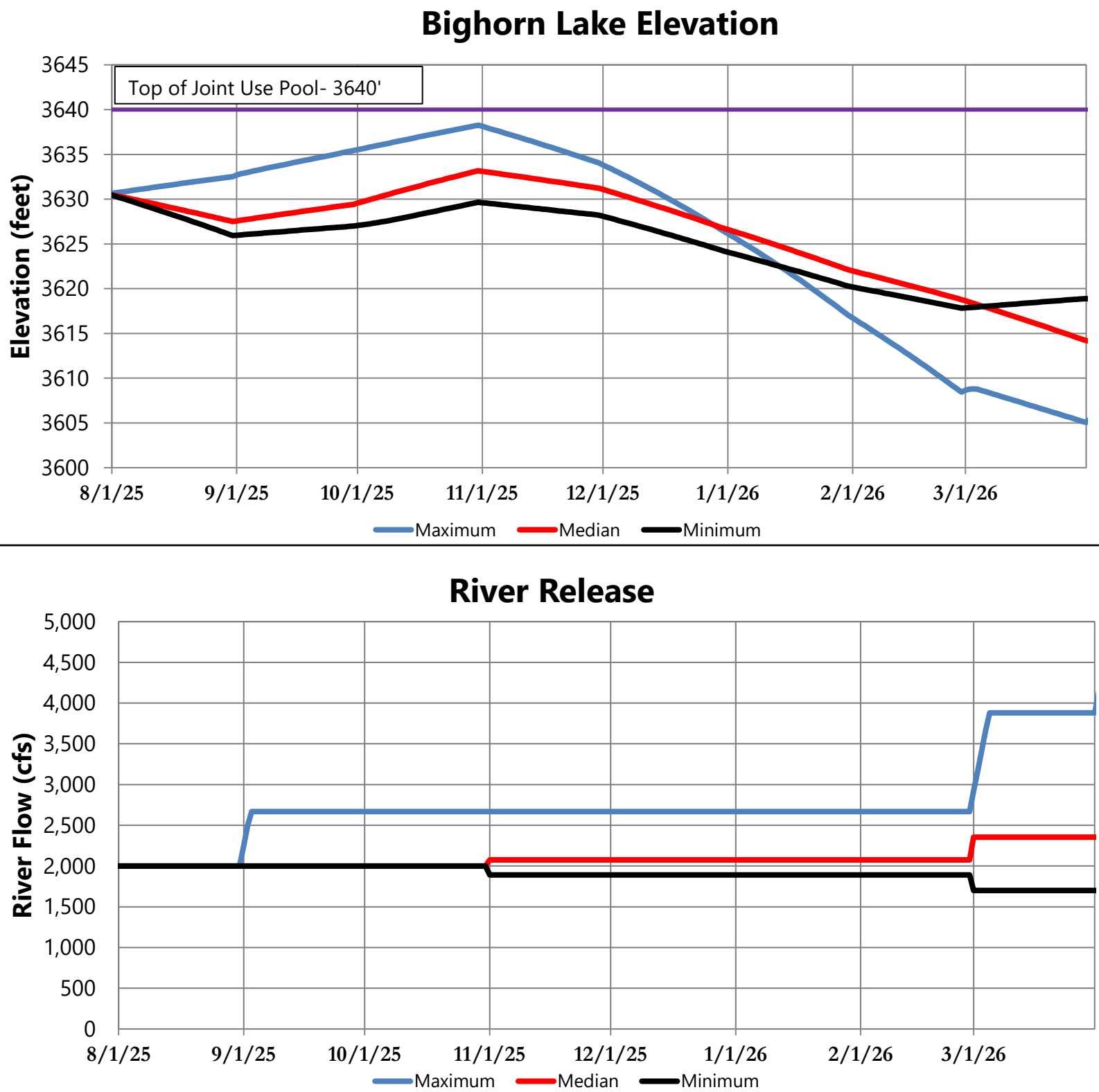


Release Outlook by Outlet

Yellowtail Powerplant bypass releases are not anticipated through the end of March 2026.

OPERATIONS OUTLOOK (August 1, 2025 through March 31, 2026)

Projected elevations and the range of river releases are based on the median, minimum, and maximum inflow forecasts. End-of-month elevations and river releases vary based on the difference between forecasted inflow scenarios.



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Monthly Operating Plans, Current Conditions, Snowpack and Other Water Management Information
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