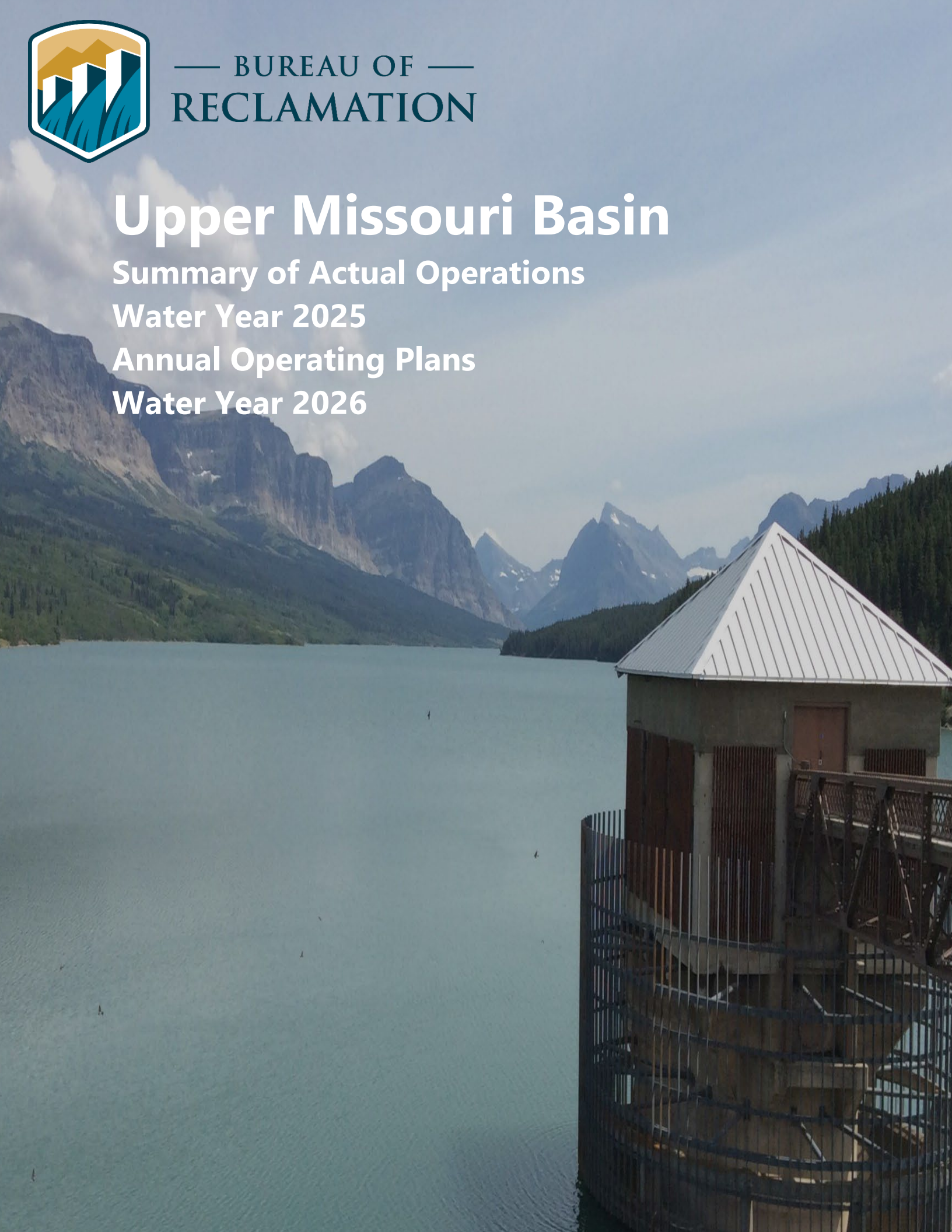
BUREAU OF RECLAMATION

Upper Missouri Basin

Summary of Actual Operations
Water Year 2025
Annual Operating Plans
Water Year 2026



Mission Statements

The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated Island Communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

Cover Image – Lake Sherburne, Glacier National Park (U.S. Department of the Interior)

Upper Missouri River Basin

Summary of Actual Operations
Water Year 2025
Annual Operating Plans
Water Year 2026

Prepared by:

Bureau of Reclamation
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Montana Area Office
Dakotas Area Office

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Acronyms and Abbreviations

AF	acre-feet
AF/acre	acre-feet per acre
AOP	Annual Operating Plan
ASI	Annual Site Inspection
avg	average
B	Boysen Reservoir
BB	Buffalo Bill Reservoir
BFID	Belle Fourche Irrigation District
CCID	Crook County Irrigation District
cfs	cubic feet per second
CR	Comprehensive Review
Div.	Diversion
EAP	Emergency Action Plan
ENSO	El Niño-Southern Oscillation
EOM	end of month
FONSI	finding of no significant impact
FID	Fort Shaw Irrigation District
ft	foot/feet
ft/day	feet per day
GID	Greenfields Irrigation District
GWh	gigawatt hours
HVID	Helena Valley Irrigation District
IDF	Inflow Design Flood
IJC	International Joint Commission
Insp	Inspection
KAF	thousand acre-feet
kW	kilowatts
Max	maximum
Midvale	Midvale Irrigation District
Min	minimum

MRJBC	Milk River Joint Board of Control
msl	mean sea level
MTAO	Montana Area Office (Reclamation)
MW	megawatt(s)
MWh	megawatt-hours
N/A	not available
NRCS	Natural Resource Conservation Service
P-S MBP	Pick-Sloan Missouri Basin Program
PFR	Periodic Facility Review
Reclamation	Bureau of Reclamation
SM	Spirit Mountain
SMED	Spirit Mountain energy dissipation
SNOTEL	Snow Telemetry
SOD	Safety of Dams
SWE	snow water equivalent
System	System of dams, reservoirs, and powerplants on the North Platte River
TTX	tabletop exercise
USACE	U.S. Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
Western	Western Area Power Administration (WAPA)
WGF	Wyoming Game and Fish Department
WY	water year
WYAO	Wyoming Area Office (Reclamation)
yr.	year

Symbols

%	percent

Contents

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Summary of Operations for Water Year 2025 for Bighorn Basin Units Under the Responsibility of the Wyoming Area Office (WYAO)

The Bureau of Reclamation's (Reclamation) Wyoming Area Office (WYAO) has oversight and operational responsibility of five reservoirs within the Bighorn Basin. These reservoirs include Bull Lake, Pilot Butte, Anchor, Boysen, and Buffalo Bill. The following sections provide background information for each reservoir and describes a summary of operations that occurred during water year 2025 (WY2025).

Riverton Unit

The Riverton Project was reauthorized as the Riverton Unit Pick-Sloan Missouri Basin Program (P-S MBP) on September 25, 1970. Major facilities of this unit are Bull Lake Reservoir, Wind River Diversion Dam, Wyoming Canal, Pilot Butte Powerplant, Pilot Butte Reservoir, and Pilot Butte Canal. The major facilities provide irrigation water to approximately 73,000 acres on the Midvale Irrigation District (Midvale). The water supply comes partly from the natural flow of the Wind River and partly from water stored in Bull Lake and Pilot Butte Reservoirs.

Bull Lake Reservoir

Bull Lake Reservoir is located on Bull Lake Creek, a tributary of the Wind River near Crowheart, WY. Bull Lake has an active capacity of 151,737 acre-feet (AF) and is upstream of all unit land. It is the principal storage facility for the unit and is operated by Midvale under contract with Reclamation. A small amount of flood control benefit is provided by normal operation for other purposes. Before the completion of the new replacement Bull Lake spillway, operations were limited releases from outlet works. In the fall of 2024, the new spillway was completed.

Bull Lake Exchange Agreement

During the past several years, Midvale and Reclamation have entered into an annual agreement (Bull Lake Exchange Agreement) whereby Reclamation could store Boysen water in Bull Lake under any combination of four conditions set forth in the agreement. The Bull Lake Exchange Agreement allows Midvale to divert and store an additional 10,000 AF of water from Bull Lake to Pilot Butte Reservoir via the Wyoming Canal. The agreement simultaneously transfers an

equal amount of Boysen storage into Bull Lake Reservoir. The purpose of the agreement is to maintain a flow of no less than 20 cubic feet per seconds (cfs) in Bull Lake Creek during the winter months. Bull Lake Creek is a prized fishery, and the agreement ensures its production.

Summary of 2025 Operations

Bull Lake Reservoir began WY2025 with 32,292 AF, which is 21 percent (%) of the reservoir's active storage capacity. Construction of the new spillway was completed in the fall of 2024. First, fill criteria limited the rate of fill of the reservoir. During the spring runoff season, outflows were carefully coordinated with Midvale to follow the first fill criteria. The first fill criteria limited the rate of fill to 1.0 feet per day (ft/day) above elevation 5780 feet (ft) and set a schedule for monitoring and reading instrumentation. The peak reservoir elevation was 5789.77 ft and occurred on June 24. The peak fill was approximately 15 ft shy of filling to the top of active conservation. No water was released down the new spillway. Dry conditions in late spring and continuing into the fall resulted in below average (avg) inflows. With below average inflows, more storage water from Bull Lake was needed to meet irrigation demands. End of September storage was the lowest it has been since 2001.

The annual Bull Lake Exchange Agreement was signed and the non-irrigation season releases were maintained above the required minimum flow rate of 20 cfs.

Table WYT-1 below shows the monthly inflows, outflows, end of month (EOM) storage, and forebay elevation at Bull Lake Reservoir. First of month snow water equivalent (SWE) values, as represented by the SNOTEL sites near the basin above Bull Lake, are also shown. For each monthly inflow, outflow, storage, and SWE value the corresponding percentage of average (30 years of historical data) are also shown.

Table WYT-1.—Monthly inflow, outflow, storage, forebay elevation, and snow data for Bull Lake Reservoir

Month	Inflow (KAF)	% of 30-year Average	Outflow (KAF)	% of 30-year Average	EOM Storage (KAF)	% of 30-year Average	Elevation (ft)	SWE (inches)	% of 30-year Average
Oct-24	4.7	71	2.6	39	34.4	45	5,758.79	0	0
Nov-24	3.0	86	1.9	79	35.4	46	5,759.33	0.97	80
Dec-24	1.9	77	1.6	85	35.7	46	5,759.46	2.43	90
Jan-25	1.7	79	1.6	87	35.7	46	5,759.48	3.93	88
Feb-25	1.9	105	1.4	84	36.2	46	5,759.72	5.4	89
Mar-25	2.5	122	1.5	84	37.2	47	5,760.23	8.83	112
Apr-25	5.1	118	1.5	49	40.7	51	5,762.02	11.57	117
May-25	28.9	100	3.9	29	65.7	69	5,773.54	10.03	104
Jun-25	50.0	74	10.2	33	105.6	80	5,789.17	1.3	37
Jul-25	20.3	44	39.3	88	86.6	65	5,782.07	0	0

Month	Inflow (KAF)	% of 30-year Average	Outflow (KAF)	% of 30-year Average	EOM Storage (KAF)	% of 30-year Average	Elevation (ft)	SWE (inches)	% of 30-year Average
Aug-25	10.1	52	66.5	136	30.3	29	5,756.63	0	0
Sep-25	7.9	83	7.3	19	31.0	41	5,756.99	0	0
WY2025	138	72	139.4	72	-	-	-	-	-

KAF = thousand acre-feet

Inflow and outflow values are summed for the entire month, storage and elevation values are from the end of the month, and snow values are from the beginning of the month.

Using various hydrological data such as snowpack and streamflow, forecasts of the inflow volume from April through July are generated each month between January and June. Table WYT-2 shows the forecast volumes in WY2025. For each forecast, table WYT-2 shows the percent of average of the forecast compared to 30 years of historical inflow data.

Table WYT-2.—Forecasts of the April–July inflow volumes into Bull Lake Reservoir each month starting in January and ending in June

Forecast Issue Month	April–July Inflow Forecast (KAF)	% of 30-yr Average Inflow
January 2025	115	78
February 2025	120	82
March 2025	130	88
April 2025	130	88
May 2025	140	95
June 2025	127	86
Actual	104	70

KAF = thousand acre-feet

Midvale began diverting water into the Wyoming Canal on April 8. Diversions for irrigation into the Wyoming Canal ended earlier than normal on September 3. The peak diversion of 1,399 cfs occurred on June 13.

Additional hydrologic and statistical information pertaining to Bull Lake operations during 2025 can be found in tables WYT-3, 4, and 5 and figure WYG-1.

Table WYT-3.—Reservoir allocations for Bull Lake Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	5,739.00	722	722
Top of active conservation	5,805.00	152,459	151,737

Table WYT-4.—Storage and elevation data for Bull Lake Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	5,757.69	32,292	10/1/2024
End of year	5,757.04	31,065	10/1/2025
Annual low	5,754.94	27,170	9/3/2025
Historic low*	5,743.03	6,228	9/2/1950
Annual high	5,789.77	107,228	6/24/2025
Historic high	5,805.70	154,677	8/10/1965

* Prior to 1952 daily records were not available. End of month records were used to determine the historic low.

Table WYT-5.—Inflow and discharge data for Bull Lake Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	138,035	Oct 2024–Sep 2025	139,357	Oct 2024–Sep 2025
Daily peak (cfs)	1,398	6/1/2025	1,184	8/28/2025
Daily minimum (cfs)	15	3/16/2025	23	11/13/2024
Peak spillway flow (cfs)	N/A	N/A	0	N/A
Total spillway flow (AF)	N/A	N/A	0	N/A

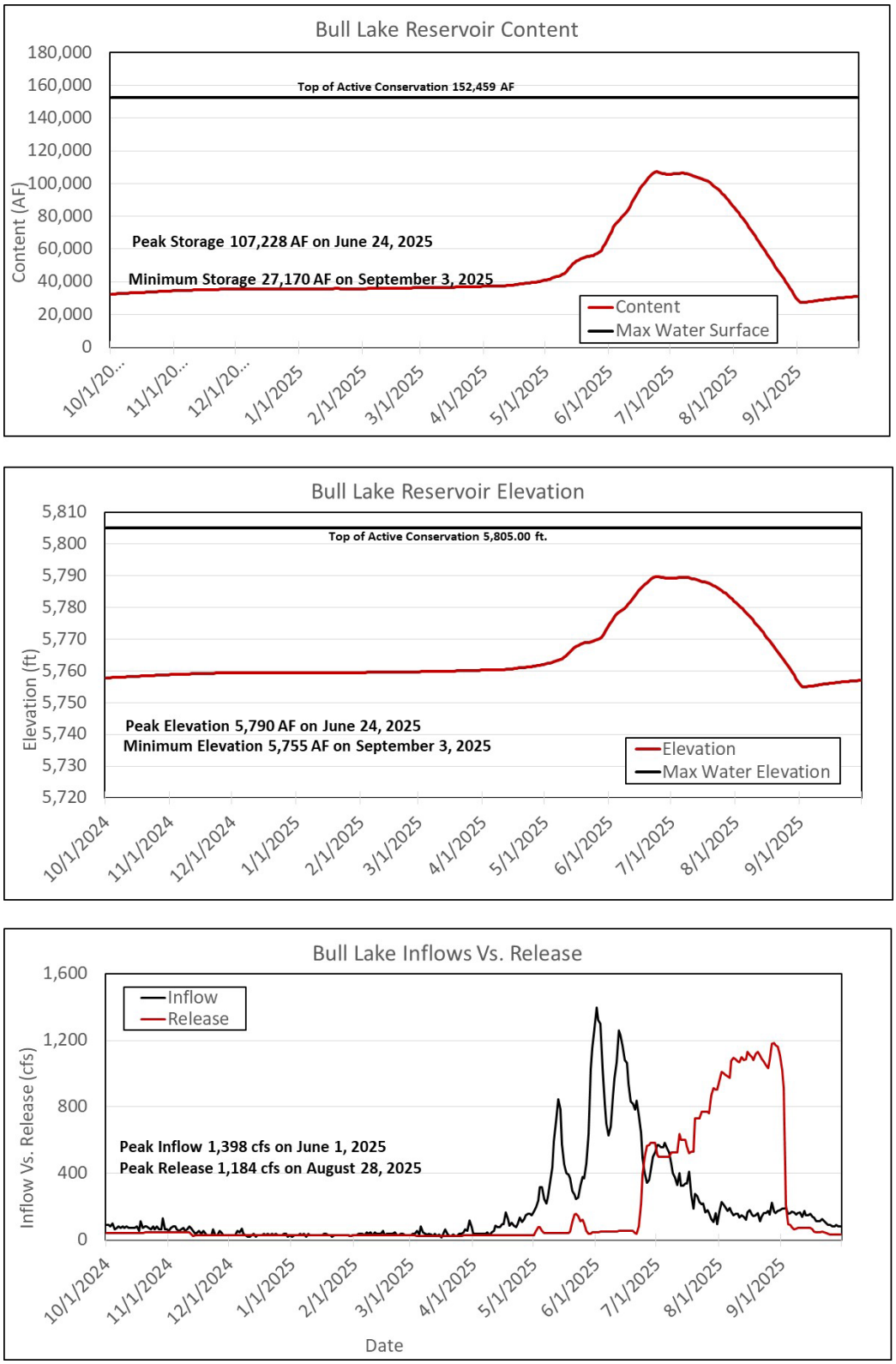


Figure WYG-1.—WY2025 storage, forebay elevation, inflow, and release at Bull Lake Reservoir.

Pilot Butte Reservoir

Pilot Butte Reservoir is an off-stream reservoir near Kinnear, WY, and receives its water supply from the Wind River via the Wyoming Canal. Pilot Butte Reservoir has a total capacity of 33,721 AF. Of this amount 3,803 AF is inactive and 29,918 AF is active conservation storage. Pilot Butte Dam and the Wyoming Canal are operated by Midvale under contract with Reclamation. The turbines at Pilot Butte are currently in inactive status.

Summary of 2025 Operations

Pilot Butte Reservoir began WY2025 with 11,754 AF of storage, which is a pool elevation of 5429.89 ft above sea level. At the beginning of the water year (WY) in October 2024, the Bull Lake Exchange took place. Pilot Butte stored 10,000 AF of water from Bull Lake to Pilot Butte Reservoir via the Wyoming Canal. The agreement simultaneously transfers an equal amount of Boysen storage into Bull Lake Reservoir. The purpose of the agreement is to maintain a flow of no less than 20 cfs in Bull Lake Creek during the winter months. Bull Lake Creek is a prized fishery, and the agreement ensures its production. During the irrigation season, water stored in Pilot Butte Reservoir was delivered to through the Midvale canal system for irrigation. Pilot Butte Reservoir ended WY2025 with a storage content of 13,440 AF.

Table WYT-6 below shows the monthly inflows, outflows, EOM storage, and forebay elevation at Pilot Butte Reservoir. For each monthly inflow, outflow, and storage value the corresponding percentage of average (30 years of historical data) are also shown.

Table WYT-6.—Monthly inflow, outflow, storage, forebay elevation, and snow data for Pilot Butte Reservoir

Month	Inflow, KAF	% of 30-yr Average	Outflow, KAF	% of 30-yr Average	EOM Storage, KAF	% of 30-yr Average	Elevation (ft)
Oct-24	15.6	126	0.0	0.0	27.4	105	5,452.61
Nov-24	1.3	84	0.0	NA	28.6	105	5,454.12
Dec-24	-0.2	NA	0.0	NA	28.4	104	5,453.89
Jan-25	0.0	NA	0.0	NA	28.4	103	5,453.87
Feb-25	-0.1	NA	0.0	NA	28.3	102	5,453.72
Mar-25	0.1	34	0.0	NA	28.3	102	5,453.79
Apr-25	0.5	10.0	0.0	0.0	28.9	101	5,454.43
May-25	13.6	65	16.9	70	25.6	100	5,450.40
Jun-25	35.5	100	33.8	104	27.3	96	5,452.58
Jul-25	31.2	83	35.0	83	23.4	99	5,447.68
Aug-25	25.6	79	34.8	98	14.3	74	5,434.29
Sep-25	1.9	8	2.7	11	13.4	84	5,432.88
WY2025	124.9	74	123.2	74	-	-	-

KAF = thousand acre-feet
Inflow and outflow values are summed for the entire month, and storage and elevation values are from the end of the month.

Additional hydrologic and statistical information pertaining to Pilot Butte Reservoir during WY2025 can be found in tables WYT-7, 8, and 9 and figure WYG2.

Table WYT-7.—Reservoir allocations for Pilot Butte Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	5,410.00	3,803	3,803
Top of active conservation	5,460.00	33,721	29,918

Table WYT-8.—Storage and elevation data for Pilot Butte Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	5,429.89	11,754	10/1/2024
End of year	5,432.88	13,440	9/30/2025
Annual low	5,429.89	11,754	10/1/2024
Historic low	5,409.00 (approximate)*	0 (approximate)*	10/1/2021
Annual high	5,456.16	30,341	6/16/2025
Historic high	5,460.60	37,465	4/20/1988

Table WYT-9.—Inflow and discharge data for Pilot Butte Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	124,874	Oct 2024-Sep 2025	123,188	Oct 2024-Sep 2025
Daily peak (cfs)	873	6/11/2025	630	6/2/2025
Daily minimum (cfs)	0	winter months	0	winter months
Peak spillway flow (cfs)	N/A	N/A	0	N/A
Total spillway flow (AF)	N/A	N/A	0	N/A

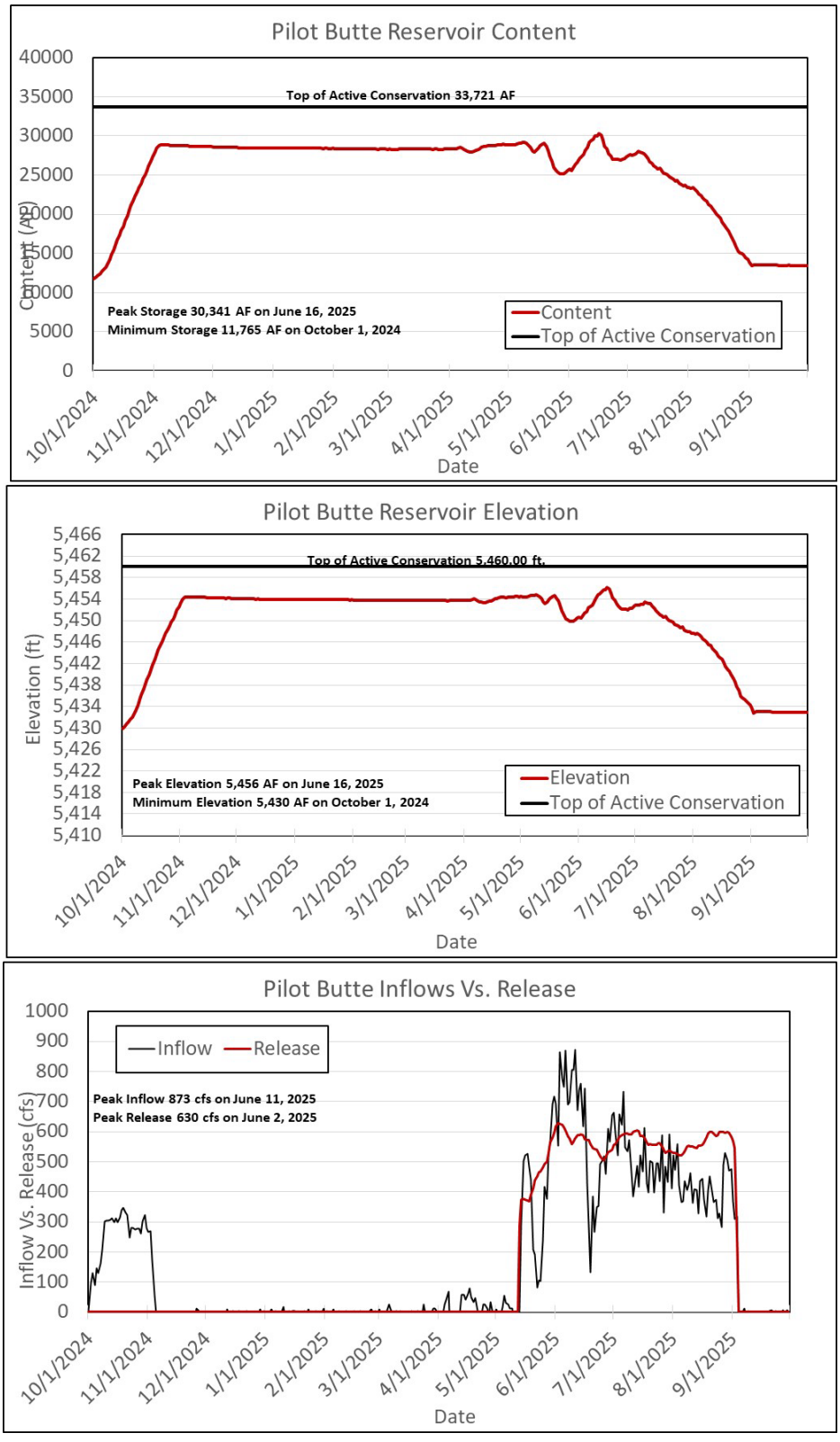


Figure WYG-2.—WY2025 storage, forebay elevation, inflow, and release at Pilot Butte Reservoir.

Boysen Reservoir and Powerplant

Boysen Reservoir (P-S MBP) is located on the Wind River above Thermopolis, WY. The dam and reservoir were built for flood control, power generation, irrigation, recreation, and fish and wildlife. Boysen Reservoir has a total capacity of 892,226 AF. Of this amount, 219,181 AF are allocated for inactive and dead storage, 522,413 AF is for active conservation storage, and 150,632 AF is for exclusive flood control storage. Of the amount allocated for active conservation, 144,229 AF are specifically allocated for joint use flood control storage. All the joint-use space is located between elevation 4717.00 ft and elevation 4725.00 ft, which is the top of the spillway gates when closed. The exclusive flood control space is located between elevation 4725.00 ft and elevation 4732.20 ft. When the reservoir rises above elevation 4724.50 ft, the spillway gates are operated to maintain a minimum of 6 inches of clearance above the reservoir level for prevention of over-topping the gates. When all flood control space is filled, releases cannot be controlled to less than 14,000 cfs due to the required gate clearance.

Irrigation water is provided from the reservoir for several units, both upstream and downstream from Boysen Dam. Water is furnished downstream to about 7,500 acres in the Hanover-Bluff Unit (P-S MBP) and 3,400 acres on the Lucerne Canal in the Owl Creek Unit (P-S MBP). Supplemental water is furnished to other irrigation districts and to several individual water users below the dam. The Bighorn Canal Irrigation District and Hanover Irrigation District receive water under long-term contracts with Reclamation. Depending on availability, water is provided to Bluff Irrigation District, Kirby Ditch Irrigation District, Lower Hanover Canal Association, Bighorn Canal Irrigation District, and Hanover Irrigation District utilizing temporary water service contracts.

Summary of 2025 Operations

At the beginning of WY2025, Boysen Reservoir contents were 573,120 AF. A winter release rate of 700 cfs began on October 16, 2024. Inflows into Boysen were below average throughout the entire water year. Boysen Reservoir did not fill by approximately 117 thousand acre-feet (KAF) and ended the water year with approximately 58 KAF less storage than at the beginning of the water year. No flushing flow or moss flush occurred during WY2025.

Table WYT 10 below shows the monthly inflows, outflows, EOM storage, and forebay elevation at Boysen Reservoir. First of month SWE values, as represented by the Snotel sites within/near the basin above Boysen Reservoir, are also shown. For each monthly inflow, outflow, storage, and SWE value the corresponding percentage of average (30 years of historical data) are also shown.

Table WYT-10.—Monthly inflow, outflow, storage, forebay elevation, and snow data for Boysen Reservoir

Month	Inflow, (KAF)	% of 30-yr Average	Outflow, (KAF)	% of 30-yr Average	EOM Storage, (KAF)	% of 30-yr Average	Elevation (ft)	Snow, (inches)	% of 30-yr Average
Oct-24	27.9	48	53.7	101	547.3	94	4,713.79	0	0
Nov-24	38.2	77	41.5	87	544.0	94	4,713.57	0.89	61
Dec-24	35.6	90	43.2	90	536.4	94	4,713.06	2.47	72
Jan-25	26.3	69	42.8	91	520.0	92	4,711.93	3.94	68
Feb-25	31.3	80	39.0	90	512.2	92	4,711.39	5.6	71
Mar-25	50.8	95	43.7	75	519.4	94	4,711.89	9.53	94
Apr-25	42.5	81	47.7	61	514.2	97	4,711.53	12.92	103
May-25	97.3	68	65.4	53	546.1	100	4,713.71	12.09	95
Jun-25	143.6	48	68.7	36	621.0	94	4,718.42	1.33	25
Jul-25	37.1	27	70.7	44	587.3	92	4,716.38	0	0
Aug-25	30.9	61	68.5	76	549.7	92	4,713.95	0	0
Sep-25	26.5	56	60.7	92	514.8	89	4,711.57	0	0
WY2025	588.1	59	645.7	65					

Inflow and outflow values are summed for the entire month, storage and elevation values are from the end of the month, and snow values are from the beginning of the month.

Using hydrological state data (e.g., snowpack, streamflows, etc.) forecasts of the April through July inflow volume are made each month between January and June. Table WYT-11 shows the forecast amounts that were made in WY2025. For each forecast, table WYT-11 shows the percent of average of the forecast compared to 30 years of historical inflow data.

Table WYT-11.—Forecasts of the April–July inflow volumes into Boysen Reservoir made each month starting in January and ending in June

Month Forecast Made	April–July Inflow Forecast, KAF	% of 30-yr Average
Jan-25	300	47%
Feb-25	450	71%
Mar-25	450	71%
Apr-25	480	76%
May-25	493	77%
Jun-25	380	78%
Actual	321	60%

During WY2025, the powerplants associated with Boysen Reservoir had a gross generation of approximately 46.400 megawatt hours (MWh) (74% of average).

Additional hydrologic and statistical information pertaining to the operation of Boysen Reservoir can be found in tables WYT-12, 13, and 14 and figure WYG-3.

Table WYT-12.—Reservoir allocations for Boysen Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	4,685.00	219,181	219,181
Top of active conservation	4,717.00	597,365	378,184
Top of joint use	4,725.00	741,594	144,229
Top of exclusive flood control	4,732.20	892,226	150,632

Table WYT-13.—Storage and elevation data for Boysen Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	4715.48	573,120	10/1/2024
End of year	4,711.57	514,774	9/30/2025
Annual low	4,711.37	511,923	2/25/2025
Historic low elevation*	4,684.18	N/A	3/18/1956
Historic low content*	N/A	235,737	9/24/2002
Annual high	4,718.61	624,210	6/23/2025
Historic high	4,730.83	922,406	7/6/1967

* Because storage space in a reservoir is lost as sediment is trapped behind the dam, reservoirs are resurveyed periodically to determine actual capacity. Based on the 1994 resurvey of Boysen Reservoir, the historic low content of 235,737 AF occurred at an elevation that was 2.69 ft higher than the historic low elevation.

Table WYT-14.—Inflow and discharge data for Boysen Reservoir

Inflow-Outflow Data	Inflow*	Date	Outflow**	Date
Annual total (AF)	588,069	Oct. 2024–Sept. 2025	645,681	Oct 2024–Sept. 2025
Daily peak (cfs)	5,019	6/3/2025	1,175	6/4/2025
Daily minimum (cfs)	17	10/28/2024	683	3/26/2025
Peak spillway flow (cfs)	N/A	N/A	12	8/18/2025
Total spillway flow (AF)	N/A	N/A	25	6/4/2025

* High winds can affect the forebay reading used to calculate inflow.
** Spillway outflow occurred briefly during routine gate testing.

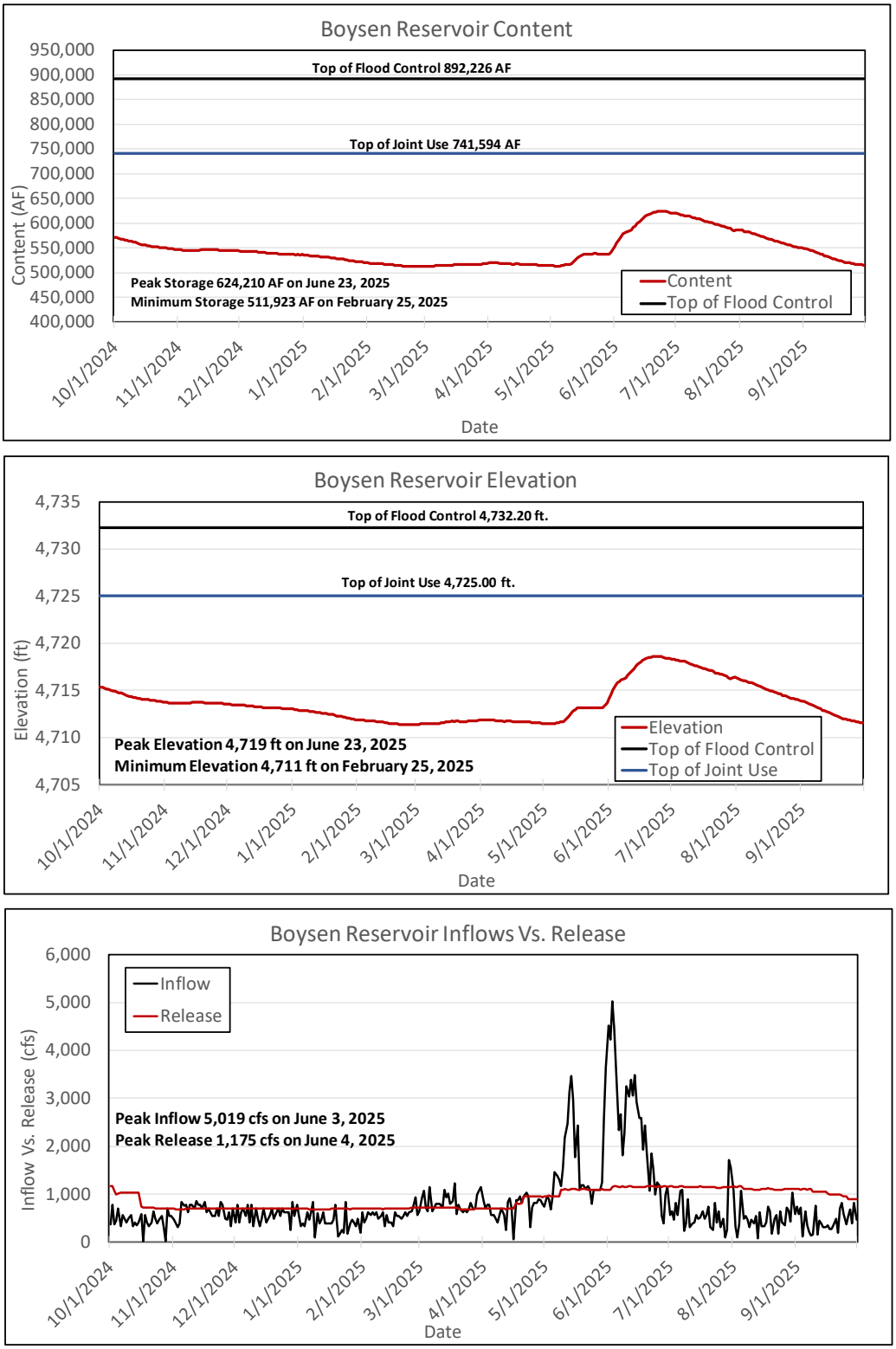


Figure WYG-3.—WY2025 storage, forebay elevation, inflow, and release at Boysen Reservoir.

Anchor Reservoir

Anchor Reservoir (P-S MBP) is located on the South Fork of Owl Creek, a tributary of the Bighorn River near Thermopolis, WY. It has a total storage capacity of 17,228 AF, of which, 17,160 AF is active storage. Construction of the dam provides supplemental irrigation supply for the Owl Creek Unit (P-S MBP). The dam was completed in November 1960. However, several major sinkholes developed in the lower portion of the reservoir after it began to fill, and corrective work to plug the sinkholes has not been successful. Two dikes have been in service since 1979 and partition off the portions of the reservoir with high seepage losses. The top of the two dikes are at elevation 6415.00 ft. However, when the reservoir rises above elevation 6412.80 ft, water flows through a notch in one of the dikes into the sinkhole area. The reservoir is operated to not exceed an elevation of 6412.80 feet. Operation and maintenance of Anchor Dam is performed by Owl Creek Irrigation District under contract with Reclamation. Reclamation requires notification from the irrigation district any time the reservoir level is expected to exceed elevation 6400.00 feet. Operation above 6400.00 feet is directed by Wyoming Area Office (WYAO) staff to avoid overtopping of the dikes.

Summary of 2025 Operations

The storage content of Anchor Reservoir at the beginning of WY2025 was 475 AF. Storage in the reservoir peaked on June 16 at elevation 6403.17 and storage content of 5,061 AF. Reservoir operations were directed from the WYAO from June 11 to June 26, when the reservoir was above elevation 6400.00 feet. Table WYT 15 below shows the monthly inflows, outflows, storage, and forebay elevation at Anchor Reservoir. The negative inflows displayed in table WYT 15 are the result of the calculated inflow, which is subject to the wind influencing the pool elevation reading in addition to the normal seepage from the reservoir. For each monthly inflow, outflow, and storage value the corresponding percentage of average (30 years of historical data) are also shown.

Table WYT-15.—Monthly inflow, outflow, storage, forebay elevation, and snow data for Anchor Reservoir

Month	Inflow, KAF	% of 30-yr Average	Outflow, KAF	% of 30-yr Average	Storage, KAF	% of 30-yr Average	Elevation (ft)
Oct-24	0.1	12	0.0	10	0.5	106	6,361.86
Nov-24	0.0	8	0.0	NA	0.5	126	6,362.17
Dec-24	0.0	NA	0.0	NA	0.5	133	6,361.74
Jan-25	0.0	NA	0.0	NA	0.5	151	6,362.90
Feb-25	0.0	NA	0.0	NA	0.5	146	6,362.92
Mar-25	0.1	59	0.0	NA	0.7	141	6,365.89
Apr-25	0.3	57	0.4	87	0.6	99	6,365.19
May-25	3.4	96	1.1	49	2.9	150	6,390.39
Jun-25	5.1	70	4.0	74	4.0	106	6,397.41
Jul-25	0.9	47	4.3	129	0.6	26	6,364.5
Aug-25	0.3	82	0.4	18	0.5	77	6,362.75
Sep-25	0.2	32	0.2	22	0.5	117	6,362.89
WY2025	10.3	69	10.3	69	-	-	-

Inflow and outflow values are summed for the entire month, and storage and elevation values are from the end of the month.

Additional hydrologic and statistical data pertaining to Anchor Reservoir operations during 2025 can be found in tables WYT-16, 17, and 18 and figure WYG-4.

Table WYT-16.—Reservoir allocations for Anchor Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	6,343.75	66	66
Top of active conservation*	6,441.00	17,228	17,160

* District operation has been restricted to elevation 6412.00 ft or less to prevent damage to the dikes and to minimize the chance of creating new sinkholes. Operations above elevation 6400.00 ft are directed by Reclamation.

Table WYT-17.—Storage and elevation data for Anchor Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	6,361.58	475	10/1/2024
End of year	6,362.89	530	9/30/2025
Annual low	6,361.07	455	12/13/2024
Historic low	-	-	-
Annual high	6,403.17	5,061	6/16/2025
Historic high	6,418.52	9,252	7/3/1967

Table WYT-18.—Inflow and discharge data for Anchor Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow *	Date
Annual total (AF)	10,332	Oct. 2024–Sept. 2025	10,295	Oct 2024–Sep 2025
Daily peak (cfs)	176	5/31/2025	97	6/17/2025
Daily minimum (cfs)	0	Winter months	0	Winter months
Peak spillway flow (cfs)	N/A	N/A	0	N/A
Total spillway flow (AF)	N/A	N/A	0	N/A

* Outflow is water released from the dam to Owl Creek. When the reservoir level rises above approximately 6412.80 ft, water flows through a notch in one of the dikes into the sinkhole area. This water is neither measured nor accounted for.

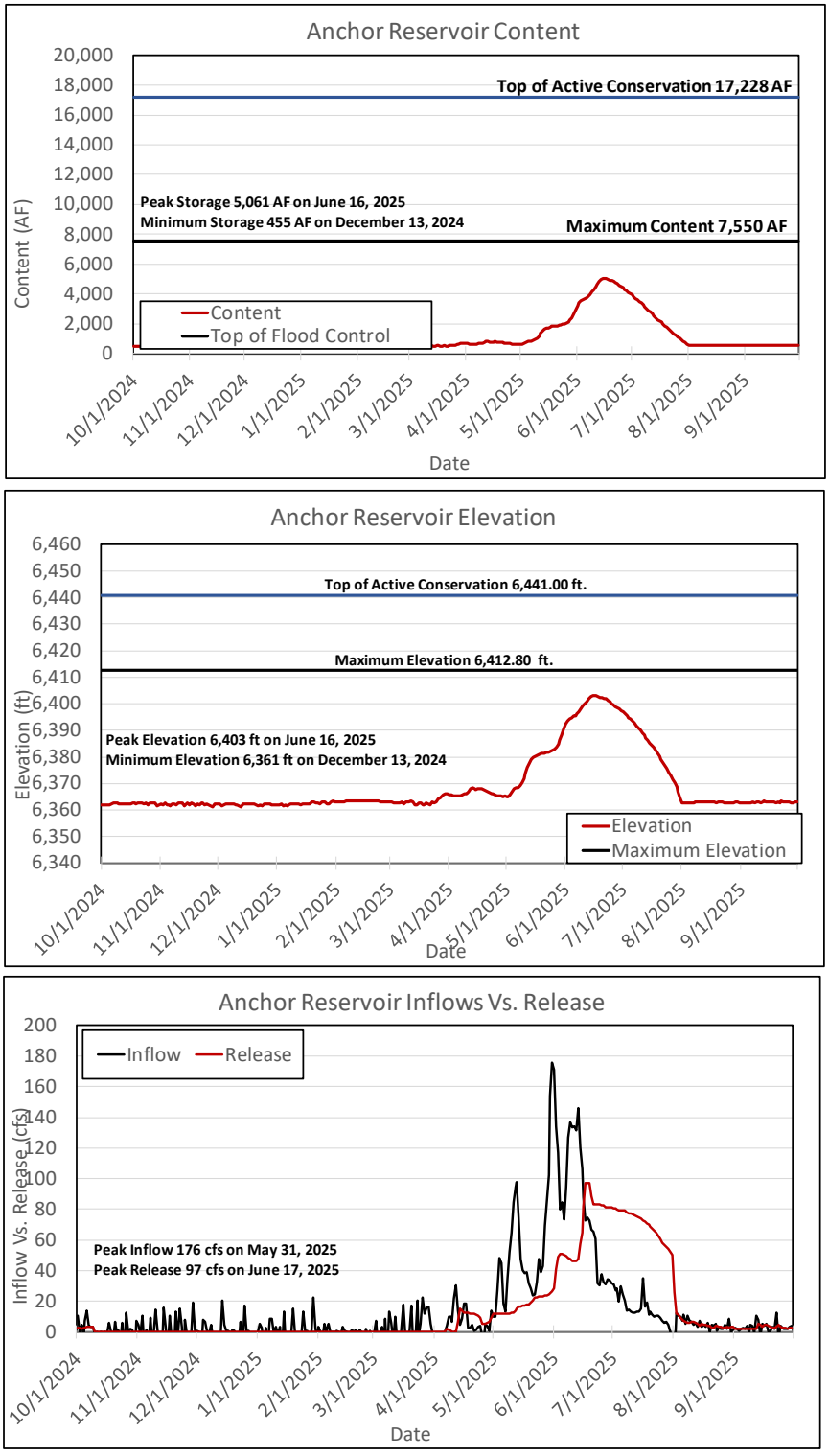


Figure WYG-4.—WY2025 storage, forebay elevation, inflow, and release at Anchor Reservoir.

Shoshone Project and Buffalo Bill Unit

The primary features of the original Shoshone Project included Buffalo Bill Dam and Reservoir, Shoshone and Heart Mountain Powerplants, and the canal and lateral systems for the Willwood, Frannie, Garland, and Heart Mountain Divisions. In 1982, The Buffalo Bill Dam and Reservoir Modifications, Shoshone Project, WY, was authorized as the Buffalo Bill Unit (P-S MBP). The principal modifications included:

- Raising the height of the dam by 25 ft
- Reconstructing the Shoshone Powerplant
- Construction of the Buffalo Bill Powerplant
- Construction of the Spirit Mountain Energy Dissipation Structure
- Pressurizing a portion of the Shoshone Canyon Conduit
- Enlarging and gating the spillway
- Creating a visitor's center
- Constructing the North Fork, South Fork, and Diamond Creek Dikes

The North and South Fork dust abatement dikes were designed to impound water in areas of the enlarged reservoir that would be dry during periods when the reservoir elevation is low, thereby reducing the dust producing area of the reservoir. The Diamond Creek protective dike prevents the enlarged reservoir from inundating Irma Flats.

Controlled releases are made from Buffalo Bill Reservoir at four points:

1. Shoshone Canyon Conduit
2. Shoshone Powerplant
3. Gated spillway
4. Two river outlets (jet-flow valve and two 4X5 high-pressure gates)

Irrigation releases for the project land along the Shoshone River are made through the Shoshone Powerplant, the river outlets, or through Buffalo Bill and Heart Mountain Powerplants via the Shoshone Canyon Conduit. Water for the Willwood, Frannie, and Garland Divisions of the Shoshone Project is diverted from the Shoshone River below Buffalo Bill Reservoir. The Heart Mountain Division is irrigated by water released at the dam through a high-level outlet to the Shoshone Canyon Conduit and Heart Mountain Canal. Currently the Shoshone Project serves approximately 93,000 acres across the four divisions.

Buffalo Bill Reservoir

Buffalo Bill Dam and Reservoir, located on the Shoshone River above Cody, WY, is a multipurpose facility that provides water for domestic, irrigation, municipal, fish and wildlife, power, and recreational use. It also provides a small amount of incidental flood control, although no storage space is specifically reserved for this purpose. The total storage capacity of the reservoir is 646,565 AF at elevation 5393.50 ft, the top of the active conservation pool.

Heart Mountain Powerplant, Shoshone Project, with a nameplate capability of 6,000 kilowatts (kW) and maximum discharge capacity of 360 cfs. It is located at the end of the Shoshone Canyon Conduit. The Shoshone Canyon Conduit obtains water from a high-level outlet at an elevation of 5233.00 ft at Buffalo Bill Dam. The powerplant is located 3.5 miles below the dam and discharges into the Shoshone River. During the summer months, the water released through the powerplant is used to satisfy a portion of the irrigation demand of lands diverting directly from the river. The powerplant is typically only operational during the irrigation season when water is delivered through the non-pressurized section of the Shoshone Canyon Conduit.

Shoshone Powerplant, reconstructed as part of the Buffalo Bill Unit (P-S MBP), is located on the left bank of the Shoshone River at the toe of Buffalo Bill Dam and releases water directly into the Shoshone River. After 56 years of continuous operation, the Shoshone Powerplant was deemed obsolete because of safety problems beyond economical repair. On March 21, 1980, the original plant was taken out of service. In 1992, one of the three generating units was replaced with a new unit having a nameplate capability of 3,000 kW. The Buffalo Bill Reservoir Enlargement Winter Release Operation Agreement 2019 established a minimum release rate of 100 cfs to the Shoshone River at the base of the dam. This is normally achieved by the use of the Shoshone Powerplant. A maximum release of approximately 200 cfs can be made through the Shoshone Powerplant.

Buffalo Bill Powerplant, Buffalo Bill Unit (P-S MBP), with a nameplate capability of 18,000 kW, is located about one mile downstream from Buffalo Bill Dam on the right bank of the Shoshone River. Water for generation at this powerplant is supplied through a portion of the Shoshone Canyon Conduit, which was pressurized as part of the Buffalo Bill modification. The maximum discharge capacity of the three units at the Buffalo Bill Powerplant is 930 cfs. The powerplant first generated power on July 15, 1992.

Spirit Mountain Powerplant, Buffalo Bill Unit (P-S MBP), with a nameplate capability of 4,500 kW and discharge capacity of 560 cfs, is a newly constructed energy dissipater powerplant located about one mile downstream from Buffalo Bill Dam on the right side of the Shoshone River. Water released through the Shoshone Canyon Conduit for Heart Mountain Canal or Heart Mountain Powerplant must be routed through the Spirit Mountain Powerplant or through associated sleeve valves to dissipate energy in the transition from the pressurized portion of the Shoshone Canyon Conduit to the free flow portion of the conduit. The discharge from the

powerplant must be carried away from the plant by use of the free-flow conduit and operation of the powerplant depends on the availability of the conduit to carry discharged water. Operation of the powerplant is typically limited to the irrigation season.

Summary of 2025 Operations

Buffalo Bill began WY2025 with 400,840AF of storage. Total WY2025 inflows into Buffalo Bill were below average. With below average inflows, there was a higher use of storage water from the reservoir to meet irrigation demands. Because of the anticipated low water year, there was no flushing flow. The end of year storage was approximately 41 KAF lower than the beginning of the water year.

Important Events – WY2025

- **October 18, 2024**: End of irrigation for the Shoshone Project diversions located below Buffalo Bill Dam and beginning of winter outflow rate of 200 cfs.
- **October 21, 2024**: End of Heart Mountain Irrigation diversions.
- **April 14, 2025**: Irrigation diversions by the Shoshone Project were initiated for the WY2025 irrigation season.
- **July 2, 2025**: Buffalo Bill Reservoir reached a peak pool elevation for the water year of 5,386.78 ft.

Table WYT-19 below shows the monthly inflows, outflows, end of month storage, and forebay elevation at Buffalo Bill Reservoir. First of month SWE values, as represented by the SNOTEL sites within the basin above Buffalo Bill Reservoir, are also shown. For each monthly inflow, outflow, storage, and SWE value the corresponding percentage of average (30 years of historical data) are also shown.

Table WYT-19.—Monthly inflow, outflow, storage, forebay elevation, and snow data for Buffalo Bill Reservoir

Month	Inflow, KAF	% of 30-yr Average	Outflow, KAF	% of 30-yr Average	Storage, KAF	% of 30-yr Average	Elevation (ft)	Snow, in	% of 30-yr Average
Oct-24	21.4	71	53.3	120	369.0	84	5,355.15	0	0
Nov-24	14.5	59	11.5	58	372.0	84	5,355.64	0.54	30
Dec-24	14.6	84	12.3	68	374.3	85	5,356.01	2.4	50
Jan-25	10.5	67	12.5	73	372.3	84	5,355.69	4.98	61
Feb-25	13.2	97	11.4	65	374.2	85	5,355.98	7.1	64
Mar-25	24.8	113	12.9	47	386.1	89	5,357.86	13.16	94
Apr-25	43.8	94	47.9	66	382.0	94	5,357.20	16.64	99
May-2	189.5	100	105.8	76	465.6	102	5,369.66	15.48	91
Jun-25	254.0	73	126.9	61	592.7	99	5,386.72	4.52	50
Jul-25	71.1	40	133.7	74	530.2	89	5,378.52	0	NA
Aug-25	26.6	60	119.0	105	437.8	84	5,365.71	0	NA
Sep-25	14.5	56	92.5	104	359.8	78	5,353.69	0	NA
WY2025	698.6	73	739.6	78					

Inflow and outflow values are summed for the entire month, storage and elevation values are from the end of the month, and snow values are from the beginning of the month.

Using hydrological data (e.g., snowpack, streamflows, etc.) forecasts of the April through July inflow volume are made each month between January and June. Table WYT-20 shows the forecast amounts that were made in WY2025. For each forecast, table WYT-20 shows the percent of average of the forecast compared to 30 years of historical inflow data.

Table WYT-20.—Forecasts of the April–July inflow volumes made into Buffalo Bill Reservoir each month starting in January and ending in June

Month Forecast Made	April–July Inflow Forecast, KAF	% of 30-yr Average
Jan-25	480	63%
Feb-25	550	72%
Mar-25	650	85%
Apr-25	680	89%
May-25	694	92%
Jun-25	554	73%
Actual	559	73%

During water year 2025, the powerplants associated with Buffalo Bill Reservoir had a gross generation of approximately 109,200 MWh.

Table WYT-21.—Reservoir allocations for Buffalo Bill Reservoir.

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	5,259.60	41,748	41,748
Top of active conservation	5,393.50	646,565	604,817

Table WYT-22.—Storage and elevation data for Buffalo Bill Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	5,360.13	400,840	10/1/2024
End of year	5,353.69	359,829	9/30/2025
Annual low	5,353.69	359,829	9/30/2025
Historic low*	5,240	19,080	1/31/1941
Annual high	5,386.78	593,242	7/2/2025
Historic high	5,393.51	646,647	7/30/1996

* Prior to 1952 daily records are not available. End-of-month data was used to determine the historic low.

Table WYT-23.—Inflow and discharge data for Buffalo Bill Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	698,598	Oct. 2024–Sept. 2025	739,605	Oct. 2024–Sept. 2025
Daily peak (cfs)	7,277	6/2/2025	2,229	7/15/2025
Daily minimum (cfs)	7*	1/1/2025	182	11/23/2024
Peak spillway flow (cfs)	-	-	77**	6/17/2025
Total spillway flow (AF)	-	-	153	Oct. 2024–Sept. 2025

* High winds in the area can result in a false forebay readings, which can affect computed inflows.
** Spillway outflow occurred briefly during routine gate testing.

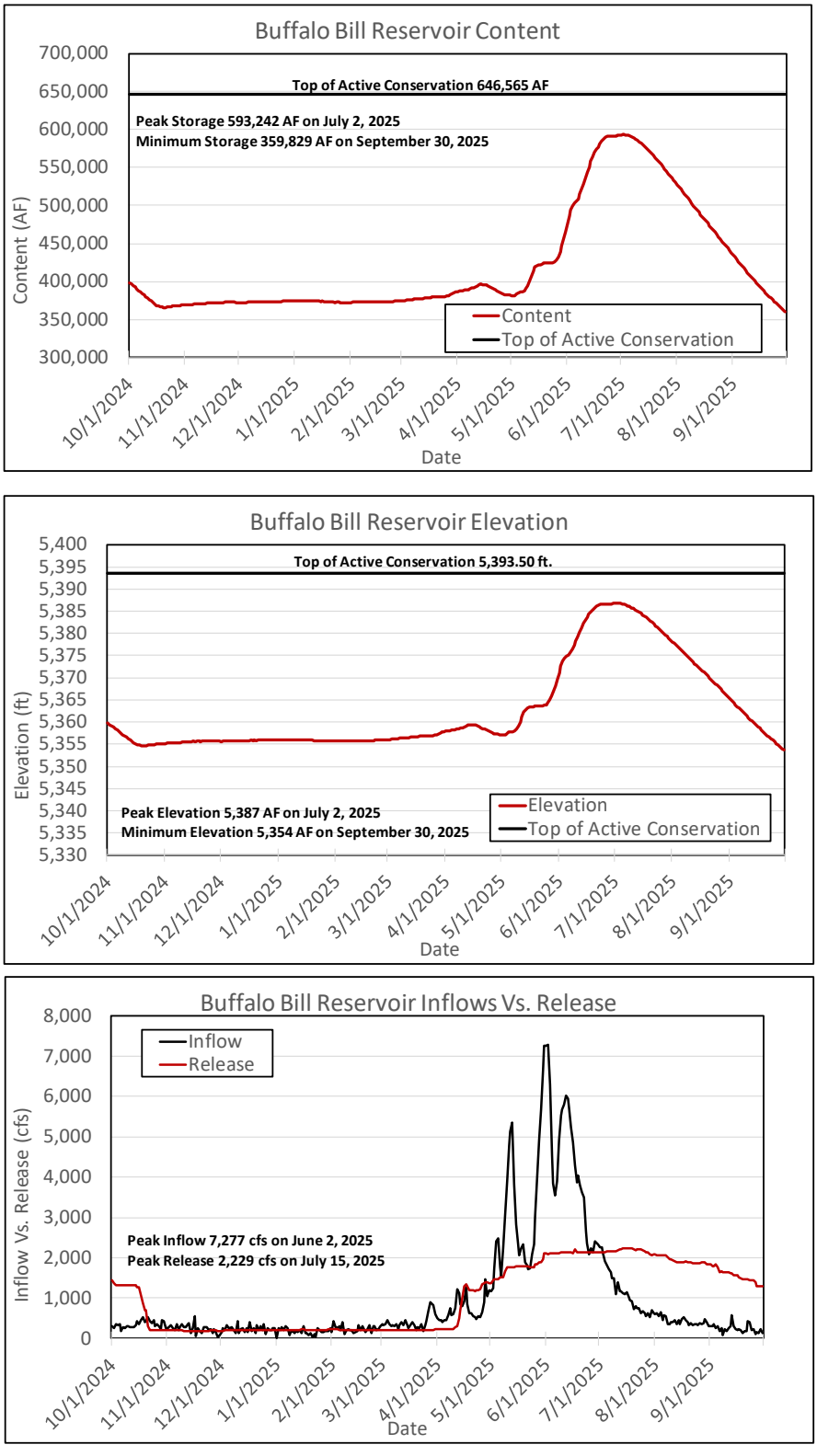


Figure WYG-5.—WY2025 storage, forebay elevation, inflow, and release at Buffalo Bill Reservoir.

Summary of Reservoir Operations for Benefit of Fish and Wildlife, Environment, and Recreation

Flushing flow from Boysen Reservoir are often performed in the spring (when possible given other demands) to support the downstream fisheries. A spring flushing flow was not conducted in WY2025.

Flushing flows from Buffalo Reservoir are often performed in the spring when possible given other demands. WGF, in coordination with Willwood Working Group Two, requested a flushing flow. During the flush, Willwood Irrigation District does a controlled elevated release of sediment from Willwood Dam. The sediment release passes sediment that has naturally accumulated and facilitates operations and maintenance of the diversion structure. The purpose of the increased flows from Buffalo Bill Dam is to help protect the fishery by following the sediment release and mobilizing the sediment downstream. The sediment release and increased flow are coordinated to minimize impacts to irrigators, recreators, and aquatic life in the Shoshone River. Due to forecasted inflows and the unavailability of excess water, a flushing flow was conducted during WY2025.

Winter releases from Buffalo Bill Dam are set to support fisheries downstream as well as mitigate ice jams. Normally the non-irrigation season releases are determined by the criteria outlined in the Buffalo Bill Reservoir Enlargement Winter Release Operation Agreement. The criteria include the previous year's annual inflow, end of year reservoir content, and state account ownership. Based on those conditions, a winter release of 100 cfs, 150 cfs, 200 cfs, or 350 cfs will be provided below Buffalo Bill Powerplant. The agreement serves to ensure a minimum release of 100 cfs is always maintained below the dam. Reclamation continues to support the WGF Reservoir Research Branch in its efforts to assess fish population and species distribution in the enlarged reservoir using hydro acoustic technology and by providing WGF river access and an aluminum tube for planting fish in the Shoshone River off the deck of Buffalo Bill Powerplant. At the end of WY2024, based on the Agreement, Reclamation determined that a flow of 200 cfs was required for the winter release below Buffalo Bill Dam.

As Buffalo Bill Reservoir is drawn down the lake-bed is exposed to wind erosion, which creates dust in the reservoir area and in the town of Cody, WY. As a part of the enlargement of Buffalo Bill Reservoir, dust abatement dikes were built on the upper ends of the North and South Fork arms of the reservoir to hold water in areas that would become dry as the reservoir level decreased, thus reducing the area of dry lake bed. The top of the North Fork Dike is approximately 5,370 Feet. When the reservoir pool elevation drops below 5,370 ft, the North Fork Dike helps to minimize the amount of lakebed exposure. The number of stop-logs at the outlet control structure on the South Fork Dike are used to maintain a nearly static water level above the dike of approximately 5,393.23 ft at the end of the water year. The stop logs provide a larger impoundment behind the dike, which benefits waterfowl habitat and fishery conditions.

The Diamond Creek Dike was constructed to prevent Diamond Creek and the Irma Flats area from being inundated by the enlarged reservoir. Inflows from the Diamond Creek drainage enter Diamond Creek Reservoir that lies at the base of the dike. This water is then pumped into

Buffalo Bill Reservoir to maintain the elevation of Diamond Creek Reservoir between a maximum of 5340.40 ft and a minimum of 5339.50 ft. The normal water surface elevation is typically 5340.00 ft.

Reservoir levels during throughout WY2025 were adequate for recreational activities on Buffalo Bill Reservoir.

Water Year 2025 Flood Benefits

Table WYT-24.—Flood damage prevented in the Wind/Bighorn and Shoshone River Systems[1]

Reservoir	Local (x$1,000)	Main Stem (x$1,000)	2025 Total(x$1,000)	1950–2025 Accumulation Total (x$1,000)
Bull Lake[2]	$0	$0	$0	$17,259
Boysen	$0	$790.2	$790.2	$581,077
Buffalo Bill[2]	$0	$0.0	$0	$10,792

[1] This data is received from the U.S. Army Corps of Engineers Omaha District Office and is revised annually. The period of assessment is 1950–2025.
[2] No space is allocated to flood control, but some flood protection is provided by operation for other purposes.

Outlook and Annual Operating Plans for Water Year 2026 for Bighorn Basin Reservoirs Under the Responsibility of the Wyoming Area Office (WYAO)

Riverton Unit: Bull Lake Reservoir

Three operating plans were prepared in October 2025 to project operations under various run-off conditions during WY2026. The projected operations for three inflow scenarios are shown in tables WYT-25, 26, and 27 and figures WYG-6. The plans are prepared to show the probable limits of operations and therefore actual conditions and operations could vary widely from the most probable plan.

The primary objective of operations at Bull Lake is to provide irrigation water to Midvale. Under normal operation, the reservoir also provides flood control benefits and a water resource for fish, wildlife, and recreation. Bull Lake is operated under the following criteria and limitations:

1. Based on forecasted inflows, March-June releases are scheduled with the objective of filling the lake to a content of 151,000 AF at elevation 5804.50 ft during July.
2. During April–October, releases must be adequate to meet the irrigation needs of Midvale and downstream irrigators with senior water rights on Bull Lake Creek.
3. Based on the available water supply, non-irrigation season releases from Bull Lake to Bull Lake Creek are generally maintained between 20 and 45 cfs.
4. Reclamation identified deficiencies in the existing spillway at Bull Lake Dam and determined the preferred corrective action was to construct a new labyrinth spillway and remove the existing spillway. Reclamation awarded a contract on September 20, 2018 to Malcolm International LLC for about $44.5 million to construct the project. Actual costs are approximately $129.3 million. Construction was completed in the fall of 2024. First fill restrictions and monitoring will exist in WY2026.
5. Operations of the reservoir below elevation 5794.00 ft through the winter prevents damage to the concrete in the spillway inlet from ice. The reservoir is operated to have a storage level of 100,000 AF or less by November 30. The objective at the onset of winter is to be as close as possible to the 100,000 AF level (5787.13 ft) and to also provide fishery habitat.

2026 Operating Plans

Operating plans have been generated for three scenarios for all months of the upcoming water year:

- Most probable inflow conditions are based on the historical median flows.
- Reasonable minimum inflow conditions are estimated to be lower decile flows. Lower decile flows are flows that have historically been exceeded 90 percent of the time.
- Reasonable maximum inflow conditions are estimated to be upper decile flows. Upper decile flows are flows that have historically been exceeded 10 percent of the time.

Bull Lake is expected to fill under the most probable and maximum inflow conditions but not under the minimum inflow plans. Water diverted into the Wyoming Canal can be delivered to Midvale lands directly or routed through Pilot Butte Reservoir and delivered to district lands via the Pilot Canal.

Table WYT-25.—Monthly operating plans for WY2026 for Bull Lake Reservoir and other Riverton Unit features based on the most probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Bull Lake Reservoir (Initial content: 30.9 KAF)														
Reservoir inflow	KAF	4.8	3.1	2.2	1.7	1.4	1.6	3.8	26.9	75	37.4	17.6	8.5	184
Total dam release	KAF	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.5	2.4	23.4	46.8	45.3	129.9
Total dam release	cfs	25	25	25	25	25	25	25	25	40	380	761	761	--
Excess release	KAF	0	0	0	0	0	0	0	0	0	17.6	2.9	43.8	64.3
EOM content	KAF	34.2	35.8	36.4	36.6	36.6	36.7	39	64.4	137	151	121.8	85	--
EOM elevation	ft	5,758.7	5,759.5	5,759.9	5,759.9	5,759.9	5,760	5,761.2	5,773	5,800	5,804.5	5,794.9	5,781.4	--
BLR net change	KAF	3.3	1.6	0.7	0.2	0	0.1	2.3	25.4	72.6	14	-29.2	-36.8	54.1
Wind River														
Flow above BL Creek	KAF	29	26.2	18.9	21.3	16.8	17.7	24.4	83.5	180	99	41.8	26.7	585.3
Crowheart Gage Flow	KAF	30.5	27.7	20.4	22.8	18.2	19.2	25.9	85	182.4	122.4	88.6	72	715.2
Flow below div dam	KAF	15.7	27.7	20.4	22.8	18.2	19.2	8.5	30.3	117.7	37.9	24.8	69.8	413.1
Gain/return flow	KAF	0	0	0	0	0	0	4.8	7.4	7.1	7.4	6.1	5.4	38.2
Indian irrigation	KAF	1.2	0	0	0	0	0	1.8	6.1	6	6.1	5.5	4.5	31.3
LeClair/Riverton	KAF	5	0	0	0	0	0	3.5	18.8	24.2	27.2	21.1	15	114.8
LeClair/Riverton Shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverton Gage Flow	cfs	154.6	465.3	332.4	371.4	327.5	312.9	133.8	207.6	1591	193.5	70	935.9	--
Wyoming Canal														
Total diversion	KAF	14.8	0.0	0.0	0.0	0.0	0.0	17.4	54.7	64.7	84.5	63.8	2.2	302.1
North Canal Flow	KAF	0.0	0.0	0.0	0.0	0.0	0.0	9.8	26.4	31.2	40.1	36.1	2.2	145.8
North Canal Shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot Butte Reservoir (Initial content: 13.4 KAF)														
Reservoir inflow	KAF	14.8	0	0	0	0	0	7.6	28.3	33.5	44.4	27.7	0	156.3
Power generated	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot canal release	KAF	0	0	0	0	0	0	6.7	28	33.1	43.9	37.4	7.6	156.7

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Pilot canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	28	27.8	27.7	27.6	27.5	27.3	28	28	28	28	17.9	10	--
PBR net change	KAF	14.6	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	0	0	0	-10.1	-7.9	-3.4
EOM elevation	ft	5,457.8	5,457.6	5,457.5	5,457.4	5,457.3	5,457	5,457.8	5,457.8	5,457.8	5,457.8	5,445.4	5,433.5	--

Based on Most probable April–July runoff of: Bull Lake – 143 KAF / Wind River ab Bull Lake Creek – 387 KAF. This plan assumes an annual demand of 146 KAF for the North Canal and 157 KAF for the Pilot Canal.

Table WYT-26.—Monthly operating plans for WY2026 for Bull Lake Reservoir and other Riverton Unit features based on the minimum probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Bull Lake Reservoir (Initial content: 30.9 KAF)														
Reservoir inflow	KAF	3.1	2.3	1.4	1.5	1.2	1.4	2.8	29.4	38.7	26	14.1	5.1	127
Total dam release	KAF	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.9	16.4	36.1	62.3	1.5	128.7
Total dam release	cfs	25	25	25	25	25	25	25	31	276	587	1013	25	--
Excess release	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	32.5	33.3	33.1	33.1	32.9	32.8	34.1	61.6	83.8	73.8	25.6	29.2	
EOM elevation	ft	5,757.8	5,758.2	5,758.1	5,758.1	5,758	5,757.9	5,758.6	5,771.8	5,781	5,776.9	5,754.1	5,756	--
BLR net change	KAF	1.6	0.8	-0.1	0	-0.2	-0.1	1.3	27.5	22.3	-10.1	-48.2	3.6	-1.7
Wind River														
Flow above BL Creek	KAF	25	21.1	15.9	23.3	20.9	15.8	21.1	63.5	80.6	63.1	34.6	21.6	406.5
Crowheart Gage Flow	KAF	26.5	22.6	17.4	24.8	22.3	17.3	22.6	65.4	97	99.2	96.9	23.1	535.2
Flow Below Div Dam	KAF	11.7	22.6	17.4	24.8	22.3	17.3	5.2	21.9	27.2	30.3	24.8	16.5	242
Gain/return flow	KAF	0	0	0	0	0	0	4.8	7.4	7.1	7.4	6.1	5.4	38.2
Indian irrigation	KAF	1.2	0	0	0	0	0	1.8	6.1	6	6.1	5.5	2.7	29.5
LeClair/Riverton	KAF	5	0	0	0	0	0	3.5	18.8	24.2	27.2	21.1	15	114.8
LeClair/Riverton shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverton Gage Flow	cfs	89.6	379.6	283.6	403.9	401.3	282	78.4	70	70	70	70	70	--
Wyoming Canal														
Total diversion	KAF	14.8	0	0	0	0	0	17.4	43.5	69.9	68.9	72.1	6.6	293.2

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
North Canal flow	KAF	0	0	0	0	0	0	9.8	26.4	31.2	36.5	34.3	2.2	140.4
North Canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot Butte Reservoir (Initial content: 13.4 KAF)														
Reservoir inflow	KAF	14.8	0	0	0	0	0	7.6	17.1	38.7	32.4	37.8	4.4	152.8
Power generated	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot canal release	KAF	0	0	0	0	0	0	6.7	28	33.1	43.9	37.4	3.3	152.4
Pilot canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	28	27.8	27.7	27.6	27.5	27.3	28	16.8	22	10	10	10.8	--
PBR net change	KAF	14.6	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	-11.2	5.2	-12	0	0.8	-2.6
EOM elevation	ft	5,457.8	5,457.6	5,457.5	5,457.4	5,457.3	5,457	5,457.8	5,443.9	5,450.7	5,433.5	5,433.5	5,434.8	--

Based on Minimum April–July runoff of: Bull Lake – 97 KAF / Wind River ab Bull Lake Creek – 228 KAF. This plan assumes an annual demand of 140 KAF for the North Canal and 152 KAF for the Pilot Canal.

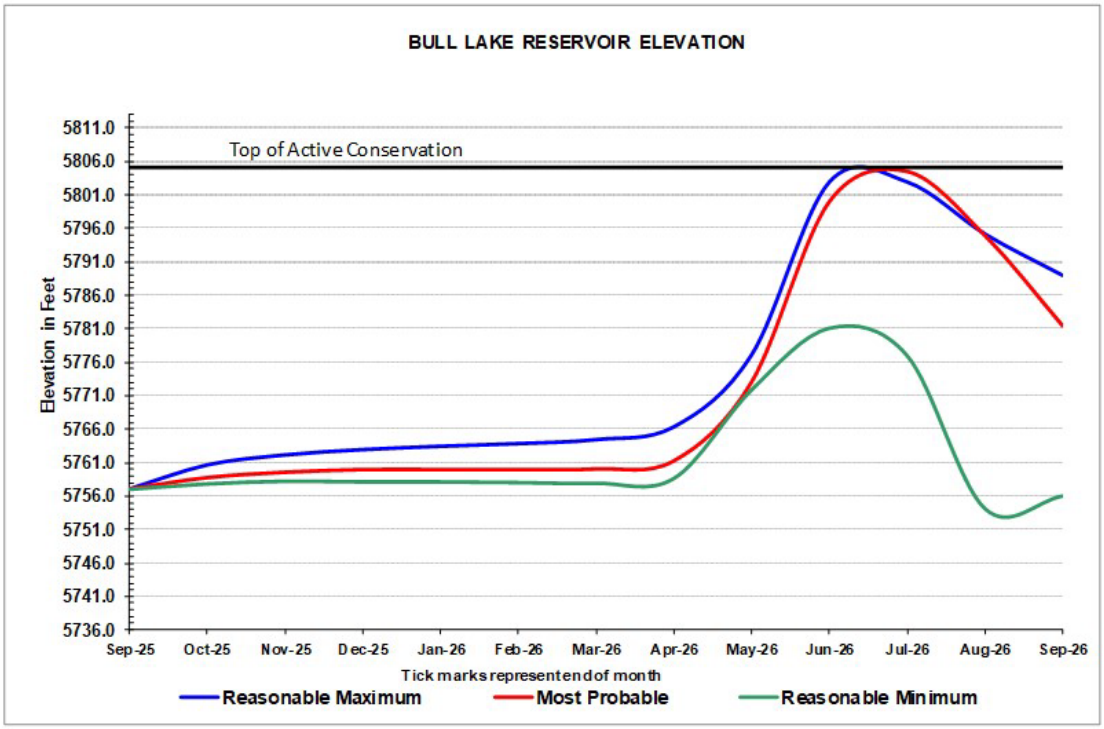
Table WYT-27.—Monthly operating plans for WY2026 for Bull Lake Reservoir and other Riverton Unit features based on the maximum probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Bull Lake Reservoir (Initial content: 30.9 KAF)														
Reservoir inflow	KAF	8.6	4.4	3.1	2.5	2.2	2.9	5.4	30.2	94.6	77.6	27.1	12.2	270.8
Total dam release	KAF	1.5	1.5	1.5	1.5	1.4	1.5	1.5	5.5	17.8	77.6	55.3	30	196.7
Total dam release	cfs	25	25	25	25	25	25	25	90	298	1262	900	504	--
Excess release	KAF	0	0	0	0	0	0	0	0	15.1	46.9	0	28.5	90.4
EOM content	KAF	38	40.9	42.4	43.4	44.2	45.6	49.5	74.2	151	151	122.8	105	--
EOM elevation	ft	5,760.6	5,762.1	5,762.9	5,763.4	5,763.8	5,764.4	5,766.3	5,777.1	5,804.5	5,804.5	5,795.2	5,789	--
BLR net change	KAF	7.1	2.9	1.6	1	0.8	1.4	3.9	24.7	76.8	0	-28.2	-17.8	74.1
Wind River														
Flow above BL Creek	KAF	37.1	32.5	30.3	34.7	28	27.5	27.9	145.3	366.8	217.1	77.4	50.6	1075.2
Crowheart Gage Flow	KAF	38.6	34	31.8	36.2	29.4	29	29.4	150.8	384.6	294.7	132.7	80.6	1271.9
Flow below diversion dam	KAF	23.8	34	31.8	36.2	29.4	29	12	96.1	319.9	213.8	74	78.4	978.5

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Gain/return flow	KAF	0	0	0	0	0	0	4.8	7.4	7.1	7.4	6.1	5.4	38.2
Indian irrigation	KAF	1.2	0	0	0	0	0	1.8	6.1	6	6.1	5.5	4.5	31.3
LeClair/Riverton	KAF	5	0	0	0	0	0	3.5	18.8	24.2	27.2	21.1	15	114.8
LeClair/Riverton shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverton Gage flow	cfs	286.4	571.2	517.8	589.3	529.2	472.2	192.6	1,277.7	4,988.6	3,054.8	871	1,080.1	--
Wyoming Canal														
Total diversion	KAF	14.8	0	0	0	0	0	17.4	54.7	64.7	80.9	58.7	2.2	293.4
North Canal flow	KAF	0	0	0	0	0	0	9.8	26.4	31.2	36.5	30.9	2.2	137
North Canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot Butte Reservoir (Initial content: 13.4 KAF)														
Reservoir inflow	KAF	14.8	0	0	0	0	0	7.6	28.3	33.5	44.4	27.8	0	156.4
Power generated	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot canal release	KAF	0	0	0	0	0	0	6.7	28	33.1	43.9	37.4	4.7	153.8
Pilot canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	28	27.8	27.7	27.6	27.5	27.3	28	28	28	28	18	13	
PBR net change	KAF	14.6	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	0	0	0	-10	-5	-0.4
EOM elevation	ft	5,457.8	5,457.6	5,457.5	5,457.4	5,457.3	5,457	5,457.8	5,457.8	5,457.8	5,457.8	5,445.5	5,438.3	

Based on Maximum April–July runoff of: Bull Lake – 208 KAF / Wind River ab Bull Lake Creek – 757 KAF. This plan assumes an annual demand of 137 KAF for the North Canal and 154 KAF for the Pilot Canal

BULL LAKE RESERVOIR



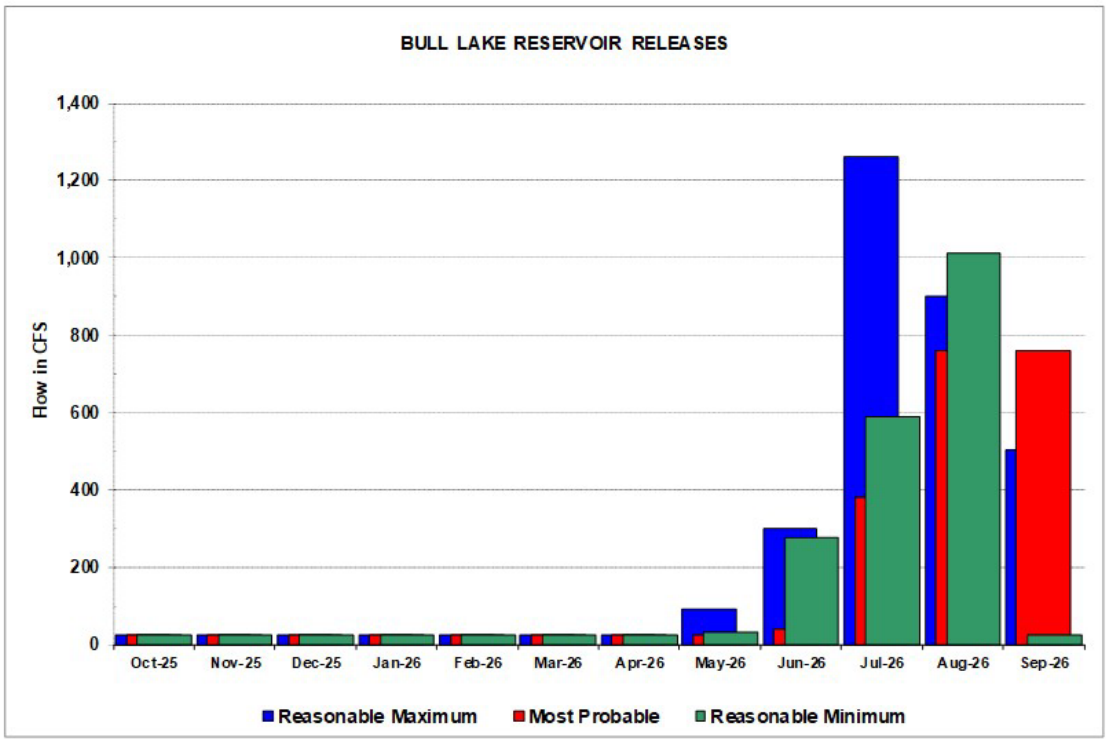


Figure WYG-6.—WY2026 forebay elevation and inflow at Bull Lake Reservoir under a minimum, expected, and maximum forecasts.

Boysen Reservoir and Powerplant

Three operating plans were prepared in October 2025 to project water operations under various inflow conditions during WY2026. The operations for the three runoff conditions are shown in Tables WYT-28, 29 and 30, and figure WYG-7. These plans are presented only to show the probable limits of operations and therefore, actual conditions and operations could vary widely from the most probable plan.

The operating objectives at Boysen Dam and Reservoir are to provide water for irrigation, municipal and industrial use, and power generation; provide flood control in cooperation with the U.S. Army Corps of Engineers (USACE); and enhance fish, wildlife, and recreation opportunities in both the reservoir and the Wind/Bighorn River.

Irrigation Season Release

During the irrigation season, water releases from Boysen Reservoir are made to satisfy all downstream senior water rights and storage contract commitments. Generally, demands for downstream senior water rights are met with a reservoir release between 900 and 1,200 cfs. Releases above what is required to meet irrigation demands may be made to manage reservoir levels and generate power.

Non-Irrigation Season Release

During the non-irrigation season, releases are made to produce power, enhance the river and reservoir fishery, and provide storage space for the expected spring runoff or conserve storage if the reservoir is not expected to fill. Winter releases are generally in the range between 400 cfs and 1,150 cfs, depending on reservoir conditions going into the winter. The Wyoming Game and Fish Department considers 800 cfs to be the preferred fishery flow from October–February and flows below 600 cfs to be detrimental to the river fishery. A release of approximately 1,150 cfs can be made through one unit at Boysen Powerplant. By releasing less than the capacity of one powerplant unit, annual maintenance can be performed on the other unit during the winter months.

General Operating Procedures

1. October–February: Releases of water for power generation are scheduled to evacuate storage while assuring an adequate water supply for the upcoming irrigation season. It is desirable to maintain a uniform release during November–February to reduce the risk of downstream ice jams, which may cause flooding or damage to bridges and other structures.
2. March–July: Based upon monthly water supply forecasts and as soon as river ice conditions allow, releases are scheduled to meet the irrigation demand as a minimum. Greater releases may be made if necessary, to eliminate or minimize a spill, with the

objective of filling the reservoir to elevation 4724.50 ft (731,841 AF) by the end of July. Depending on inflows, attempts will be made to provide a reservoir level of at least elevation 4707.00 ft from the end of May through the end of August for recreational boating access. For the spawning of rainbow trout, it is desirable to have stable or slightly rising river flows from mid-March through early June. When conditions are suitable and without affecting power operations, attempts will be made to limit the drop in reservoir level to 2 ft or less during the reservoir fish spawn and hatch period (which begins in March and ends in May). A rising pool is desirable during this period.

3. August–September: As soon as storage has peaked, water releases are scheduled to meet the irrigation demand and generate power. Releases above what is needed to meet irrigation demand may be made to generate power and prevent the need to release water through the spillway gates if inflow conditions warrant.

2026 Operating Plans

Operating plans have been generated for three scenarios for all months of the upcoming water year:

- All plans show no power generation from January 2026 through August 2026. The Boysen power plant is undergoing a rewind of both generators. Work is planned from January 2026 through December 2027. During work on the first unit, river releases through the power plant will be temporarily discontinued.
- Most probable inflow conditions are based on the historical median flows.
- Reasonable minimum inflow conditions are estimated to be lower decile flows. Lower decile flows are flows that have historically been exceeded 90 percent of the time.
- Reasonable maximum inflow conditions are estimated to be upper decile flows. Upper decile flows are flows that have historically been exceeded 10 percent of the time.

Annual operating plans are found in tables WYT-28, 29, and 30 and figure WYG-7. Turbine unit outage schedules are found in figure WYG-9.

Table WYT-28.—Monthly operating plans for WY2026 for Boysen Reservoir based on the most probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Boysen Reservoir (Initial content: 514.8 KAF)														
Monthly inflow	KAF	32.7	51.8	37	39	39.4	47.7	43.5	161	317.5	134.2	47.7	41.5	993
Monthly inflow	cfs	532	871	602	634	709	776	731	2618	5336	2183	776	697	
Turbine release	KAF	55.3	35.7	36.9	0	0	0	0	0	0	0	0	66.3	194.2
Bypass/spill/waste	KAF	0	0	0	36.9	33.3	36.9	59.5	82.3	187.6	122.3	68.5	0	627.3
Total release	KAF	55.3	35.7	36.9	36.9	33.3	36.9	59.5	82.3	187.6	122.3	68.5	66.3	821.5
Total release	cfs	899	600	600	600	600	600	1000	1338	3153	1989	1114	1114	--
EOM content	KAF	492.2	508.3	508.4	510.5	516.6	527.4	511.4	590.1	720	731.9	711.1	686.3	--
EOM elevation	ft	4,709.96	4,711.11	4,711.12	4,711.27	4,711.69	4,712.44	4,711.33	4,716.55	4,723.89	4,724.5	4,723.42	4,722.1	--
Net change content	KAF	-22.6	16.1	0.1	2.1	6.1	10.8	-16	78.7	129.9	11.9	-20.8	-24.8	171.5
Boysen Power Plant														
Turbine release	KAF	55.3	35.7	36.9	0	0	0	0	0	0	0	0	66.3	194.2
Turbine release	cfs	899	600	600	0	0	0	0	0	0	0	0	1114	--
Generation	GWh	4.436	2.876	2.99	0	0	0	0	0	0	0	0	5.949	16.251
Max generation	GWh	11.904	11.52	11.904	0	0	0	0	0	0	0	0	11.52	46.848
% Max generation	%	37	25	25	0	0	0	0	0	0	0	0	52	--
Average	kWh/AF	80	81	81									90	84
EOM power capacity	MW	15	15	15	15	16	16	15	16	16	16	16	16	--

Based on most probable April–July inflow of 656 KAF.

Table WYT-29.—Monthly operating plans for WY2026 for Boysen Reservoir based on the minimum probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Boysen Reservoir (Initial content: 514.8 KAF)														
Monthly inflow	KAF	25	37.3	31.3	29.7	27.6	41.2	31.4	61	58.7	30	24.2	36.3	433.7
Monthly inflow	cfs	407	627	509	483	497	670	528	992	986	488	394	610	--
Turbine release	KAF	55.3	35.7	36.9	0	0	0	0	0	0	0	0	59.5	187.4
Bypass/spill/waste	KAF	0	0	0	36.9	33.3	36.9	41.7	63	71.4	73.8	68.3	0	425.3
Total release	KAF	55.3	35.7	36.9	36.9	33.3	36.9	41.7	63	71.4	73.8	68.3	59.5	612.7
Total release	cfs	899	600	600	600	600	600	701	1025	1200	1200	1111	1000	--
EOM content	KAF	484.5	486.1	480.5	473.3	467.6	471.9	461.6	459.6	446.9	403.1	359	335.8	--
EOM elevation	ft	4,709.4	4,709.52	4,709.11	4,708.57	4,708.15	4,708.47	4,707.69	4,707.54	4,706.56	4,703.01	4,699.17	4,697.04	--
Net change content	KAF	-30.3	1.6	-5.6	-7.2	-5.7	4.3	-10.3	-2	-12.7	-43.8	-44.1	-23.2	-179
Boysen Power Plant														
Turbine release	KAF	55.3	35.7	36.9	0	0	0	0	0	0	0	0	59.5	187.4
Turbine release	cfs	899	600	600	0	0	0	0	0	0	0	0	1000	--
Generation	GWh	4.423	2.844	2.935	0	0	0	0	0	0	0	0	3.915	14.117
Max generation	GWh	11.904	11.52	11.904	0	0	0	0	0	0	0	0	11.52	46.848
% Max generation	%	37	25	25	0	0	0	0	0	0	0	0	34	--
Average	kWh/AF	80	80	80	--	--	--	--	--	--	--	--	66	75
EOM power capacity	MW	15	15	15	15	15	15	14	14	14	13	12	11	--

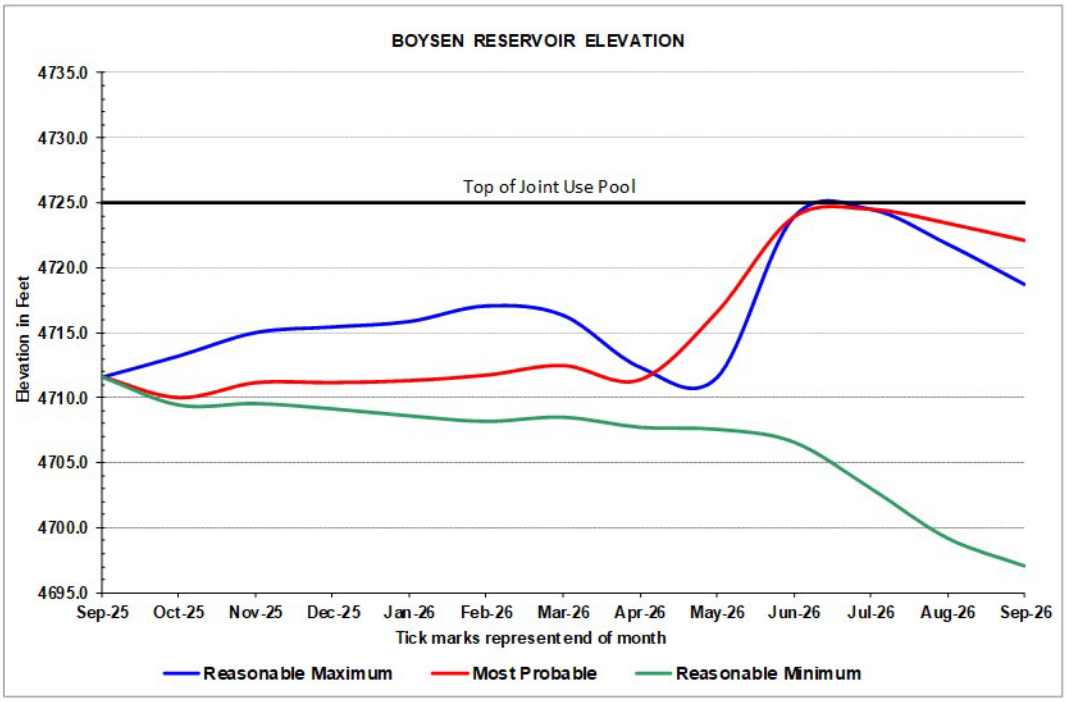
Based on reasonable minimum April–July inflow of 181 KAF.

Table WYT-30.—Monthly operating plans for WY2026 for Boysen Reservoir based on the maximum probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Boysen Reservoir (Initial content: 514.8 KAF)														
Monthly inflow	KAF	79.2	62.9	43.5	43.5	52.5	56.1	70.2	277.3	577.9	258.6	75.6	67.2	1664.5
Monthly inflow	cfs	1288	1057	707	707	945	912	1180	4510	9712	4206	1230	1129	--
Turbine release	KAF	55.3	35.7	36.9	0	0	0	0	0	0	0	0	122.2	250.1
Bypass/spill/waste	KAF	0	0	0	36.9	33.3	67.6	130.9	289	372.3	246.7	126.3	0	1303
Total release	KAF	55.3	35.7	36.9	36.9	33.3	67.6	130.9	289	372.3	246.7	126.3	122.2	1553.1
Total release	cfs	899	600	600	600	600	1099	2200	4700	6257	4012	2054	2054	--
EOM content	KAF	538.7	565.9	572.5	579.1	598.3	586.8	526.1	514.4	720	731.9	681.2	626.2	--
EOM elevation	ft	4,713.21	4,715.01	4,715.44	4,715.86	4,717.06	4,716.34	4,712.35	4,711.54	4,723.89	4,724.5	4,721.82	4,718.72	--
Net change content	KAF	23.9	27.2	6.6	6.6	19.2	-11.5	-60.7	-11.7	205.6	11.9	-50.7	-55	111.4
Boysen Power Plant														
Turbine release	KAF	55.3	35.7	36.9	0	0	0	0	0	0	0	0	122.2	250.1
Turbine release	cfs	899	600	600	0	0	0	0	0	0	0	0	2054	
Generation	GWh	4.509	2.981	3.114	0	0	0	0	0	0	0	0	10.585	21.189
Max generation	GWh	11.904	11.52	11.904	0	0	0	0	0	0	0	0	11.52	46.848
% Max generation	%	38	26	26	0	0	0	0	0	0	0	0	92	--
Average	kWh/AF	82	84	84	--	--	--	--	--	--	--	--	87	85
EOM power capacity	MW	16	16	16	16	16	16	15	14	16	16	16	16	--

Based on reasonable maximum April–July inflow of 1184 KAF.

BOYSEN RESERVOIR



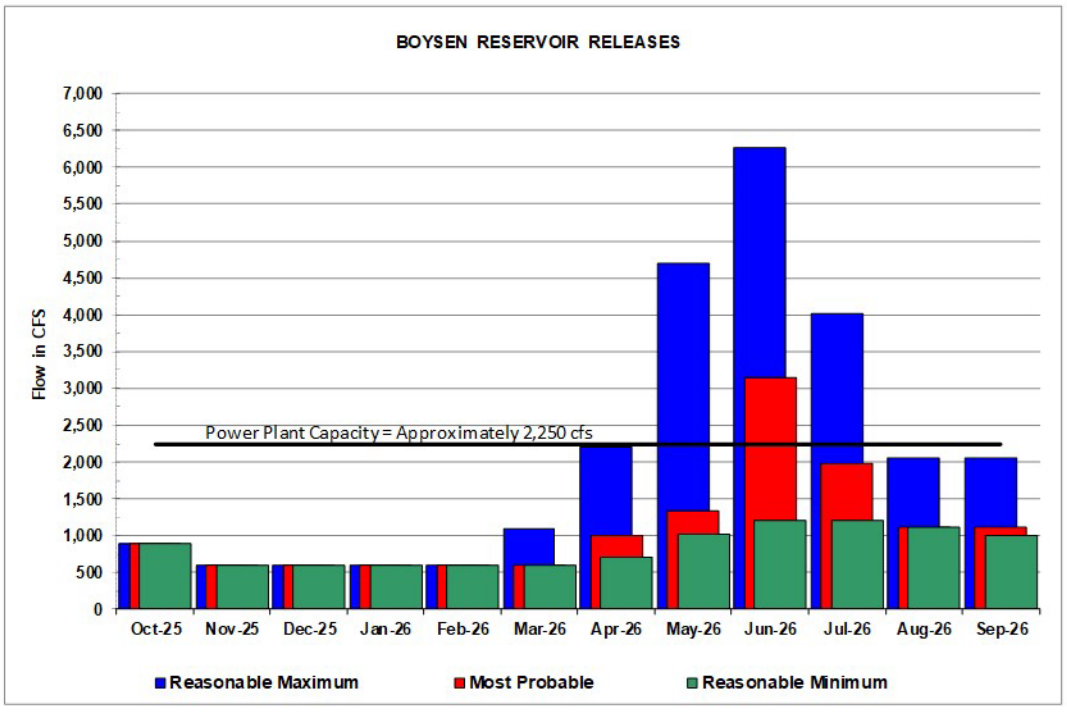


Figure WYG-7.—WY2026 forebay elevation and inflow at Boysen Reservoir under a minimum, expected, and maximum forecast.

Buffalo Bill Reservoir and Powerplants

Three operating plans were prepared for WY2026 to show the operations of Buffalo Bill Reservoir that could occur under various runoff conditions. The operations for the three runoff conditions are shown in tables WYT-31, 32, and 33 and figure WYG-8. These plans were prepared only to show the probable limits of operations; therefore, actual conditions and operations could vary widely from the most probable plan.

Normal Operating Procedures

At the end of the irrigation season, releases will be adjusted with the objective of filling the reservoir to elevation 5393.50 ft (646,565 AF) while meeting the release criteria of the *Buffalo Bill Reservoir Enlargement Winter Release Operation Agreement (*Agreement). Under the Agreement, Buffalo Bill Reservoir will be operated to ensure that a minimum flow of 100 cfs is provided in the river below the dam at all times. Additional winter releases beyond the 100 cfs minimum release up to a combined total of 350 cfs in the river below Buffalo Bill Powerplant will be provided based on the criteria set forth in the Agreement.

Reservoir releases to meet downstream irrigation requirements will, to the extent possible, be made through the most efficient power turbines available, after meeting winter flow requirements. A release of at least 100 cfs will be made through the Shoshone Powerplant, whenever the powerplant is available, to provide the required river flow directly below the dam. If the Shoshone Powerplant is not available, the release will be made through the jet flow valve at the dam.

During irrigation season, releases are determined by the requirements for irrigation, and municipal and industrial demand. If snow conditions, inflow, and reservoir content indicate an assured fill of the reservoir, additional releases may be required after the start of the spring runoff to provide flood control and make optimum use of the water for power generation. An attempt is made to maintain a release of 7,000 cfs or less during the runoff season and assures that outflow is less than inflow at all times of flood rate inflow.

2026 Operating Plans

Under most probable plan inflows are based on median flows or flows that have historically been exceeded 50 percent of the time.

The reasonable minimum volumes are determined from historical lower decile flows for all months of WY2026. A lower decile flow is a flow that has historically been exceeded 90 percent of the time.

Upper decile volumes are determined from flows that have historically been exceeded 10 percent of the time. These values are projected for WY2026 in the reasonable maximum inflows operating plan.

At the end of WY2025, storage in Buffalo Bill Reservoir was 359,829 AF. Winter releases under all three scenarios are the same as defined by the AOP. Based on the criteria set forth in the Agreement, the 2026 winter release would be 150 cfs. Ice in the Shoshone River can limit Reclamation's ability to change releases during the winter months due to the potential of ice jams near Lovell, WY.

The Shoshone, Buffalo Bill, Heart Mountain, and Spirit Mountain Powerplants will all be available for power generation in WY2026 after winter maintenance is completed. Heart Mountain and Spirit Mountain Powerplants do not normally operate during the non-irrigation season. Releases from Buffalo Bill Reservoir will be dependent upon the most efficient operation of all the powerplants while providing the required flow in the Shoshone River.

Table WYT-31.—Monthly operating plans for WY2026 for Buffalo Bill Reservoir based on the most probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Buffalo Bill Reservoir (Initial content: 359.8 KAF)														
Monthly inflow	KAF	22.5	19.4	15.3	14.3	12.2	19	43.4	166	366.5	138.9	37.7	20.7	875.9
Shoshone release	KAF	6.2	6	6.2	9.2	8.4	9.2	6	6.2	11.4	11.2	6.2	6	92.2
Non-power release	KAF	0	0	0	0	0	0	0	0	50.2	1.5	0	0	51.7
Total flow below dam	KAF	6.2	6	6.2	9.2	8.4	9.2	6	6.2	61.6	12.7	6.2	6	143.9
Buffalo Bill release	KAF	15.2	2.9	3	0	0	0	21.1	54.4	52.7	51.5	50.2	49.5	300.5
Municipal delivery	KAF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	2.9
Heart Mountain release	KAF	14.9	0	0	0	0	0	6.3	0.3	18	18.6	16.8	6.4	81.3
Heart Mountain delivery	KAF	12.2	0	0	0	0	0	7	36.5	49.5	49.5	45.1	32.6	232.4
Total outflow	KAF	48.7	9.1	9.4	9.4	8.6	9.4	40.6	97.7	182.1	132.6	118.6	94.8	761
Spill/waste	KAF	0	0	0	0	0	0	0	0	50.2	1.5	0	0	51.7
Eom targets	KAF	--	463.9	463.9	--	463.9	463.9	470	--	620	626.3	--	475	--
Eom content	KAF	330.2	340.5	346.4	351.3	354.9	364.5	367.3	435.6	620	626.3	545.4	471.3	--
Estimated total storage	KAF	333.6	343.9	349.8	354.7	358.3	367.9	370.7	439	623.4	629.7	548.8	474.7	--
EOM elevation	ft	5,349.49	5,351.2	5,352.17	5,352.96	5,353.55	5,355.08	5,355.53	5,365.98	5,390.72	5,391.51	5,381.08	5,371.03	--
Net change content	KAF	-26.2	10.3	5.9	4.9	3.6	9.6	2.8	68.3	184.4	6.3	-80.9	-74.1	114.9
Flow Below BB power	KAF	21.4	8.9	9.2	9.2	8.4	9.2	27.1	60.6	114.3	64.2	56.4	55.5	444.4
Flow Below BB power	cfs	348	150	150	150	151	150	455	986	1921	1044	917	933	--
Spring inflow	KAF	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6	3.7	3.7	3.6	43.6
Passing Cody Gage	KAF	40	12.5	12.9	12.9	11.7	12.9	37	64.6	135.9	86.5	76.9	65.5	569.3
Passing Cody Gage	cfs	651	210	210	210	211	210	622	1051	2284	1407	1251	1101	
Shoshone Power Plant														
Shoshone release	KAF	6.2	6	6.2	9.2	8.4	9.2	6	6.2	11.4	11.2	6.2	6	92.2
Generation	GWh	1.055	1.015	1.055	1.57	1.438	1.582	1.038	1.099	2.157	2.241	1.22	1.134	16.604
Max generation	GWh	2.232	2.16	2.232	2.232	2.016	2.232	2.16	2.232	2.16	2.232	2.232	2.16	26.28
% Max generation	-	47	47	47	70	71	71	48	49	100	100	55	52	--
Average	kWh/AF	170	169	170	171	171	172	173	177	189	200	197	189	180
EOM power capacity	MW	3	3	3	3	3	3	3	3	3	3	3	3	--
Buffalo Bill Power Plant														
Buffalo Bill release	KAF	15.2	2.9	3	0	0	0	21.1	54.4	52.7	51.5	50.2	49.5	300.5
Generation	GWh	3.873	0.749	0.778	0	0	0	5.458	13.378	12.95	13.39	13.039	12.848	76.463
Max generation	GWh	12.053	10.368	9.374	0	0	0	12.182	13.392	12.96	13.392	13.392	12.96	110.073
% Max generation	-	32	7	8	0	0	0	45	100	100	100	97	99	--
Average	kWh/AF	255	258	259	--	--	--	259	246	246	260	260	260	254
EOM power capacity	MW	16	14	13	0	0	0	17	18	18	18	18	18	--

Spirit Mountain Power Plant														
Spirit Mountain release	KAF	27.1	0	0	0	0	0	13.3	34.4	33.3	34.4	34.4	33.3	210.2
Generation	GWh	2.308	0	0	0	0	0	1.193	2.72	2.655	3.222	3.204	3.098	18.4
Max generation	GWh	3.348	2.592	2.678	3.348	2.903	3.248	1.296	3.348	3.24	3.348	3.348	3.24	35.937
% Max generation	-	69	0	0	0	0	0	92	81	82	96	96	96	--
Ave	kWh/AF	85	--	--	--	--	--	90	79	80	94	93	93	88
EOM power capacity	MW	3	0	0	0	0	0	2	4	5	5	4	4	--
Heart Mountain Power Plant														
Heart Mountain release	KAF	14.9	0	0	0	0	0	6.3	0.3	18	18.6	16.8	6.4	81.3
Generation	GWh	3.567	0	0	0	0	0	1.508	0.072	4.309	4.453	4.022	1.532	19.463
Max generation	GWh	3.571	0	0	0	0	0	1.728	4.464	4.32	4.464	4.464	4.32	27.331
% Max generation	-	100	0	0	0	0	0	87	2	100	100	90	35	--
Average	kWh/AF	239	--	--	--	--	--	239	240	239	239	239	239	239
EOM power capacity	MW	5	0	0	0	0	0	2	6	6	6	6	6	--
Total Generation														
Total generation	GWh	10.803	1.764	1.833	1.57	1.438	1.582	9.197	17.269	22.071	23.306	21.485	18.612	130.93
EOM power capacity	MW	27	17	16	3	3	3	24	31	32	32	31	31	--

Based on most probable April–July inflow of 715 KAF.

Table WYT-32.—Monthly operating plans for WY2026 for Buffalo Bill Reservoir based on the minimum probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Buffalo Bill Reservoir (Initial content: 359.8 KAF)														
Monthly inflow	KAF	16.1	14.2	14.3	12.9	11.5	17.4	37.1	152.1	163.2	70.8	28.2	14.7	552.5
Shoshone release	KAF	6.2	6	6.2	9.2	8.4	9.2	6	6.2	6	6.2	6.2	6	81.8
Non-power release	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Total flow below dam	KAF	6.2	6	6.2	9.2	8.4	9.2	6	6.2	6	6.2	6.2	6	81.8
Buffalo Bill release	KAF	15.2	2.9	3	0	0	0	21.1	55.3	53.7	55.5	53.6	37.9	298.2
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 Mountain release	KAF	14.9	0	0	0	0	0	6.3	2.4	17	17.6	13.4	18	89.6
Heart Mountain delivery	KAF	8	0	0	0	0	0	7	36	49.5	48	41	33	222.5
Total outflow	KAF	44.6	9.2	9.5	9.5	8.7	9.5	40.7	100.2	126.5	127.6	114.5	95.2	695.7
Spill/waste	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM targets	KAF	--	463.9	--	--	--	--	470	--	623	626.2	--	475	--
EOM content	KAF	327.9	332.9	337.7	341.1	343.9	351.8	348.2	400.1	436.8	380	293.7	213.2	--
Estimated total storage	KAF	331.3	336.3	341.1	344.5	347.3	355.2	351.6	403.5	440.2	383.4	297.1	216.6	--
EOM elevation	ft	5,349.1	5,349.94	5,350.74	5,351.3	5,351.76	5,353.05	5,352.46	5,360.64	5,366.15	5,357.53	5,343.14	5,326.7	--
Net change content	KAF	-28.5	5	4.8	3.4	2.8	7.9	-3.6	51.9	36.7	-56.8	-86.3	-80.5	-143.2
Flow Below BB power	KAF	21.4	8.9	9.2	9.2	8.4	9.2	27.1	61.5	59.7	61.7	59.8	43.9	380
Flow below BB power	cfs	348	150	150	150	151	150	455	1000	1003	1003	973	738	--
Spring inflow	KAF	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6	3.7	3.7	3.6	43.6
Passing Cody Gage	KAF	40	12.5	12.9	12.9	11.7	12.9	37	67.6	80.3	83	76.9	65.5	513.2
Passing Cody Gage	cfs	651	210	210	210	211	210	622	1099	1349	1350	1251	1101	--
Shoshone Power Plant														
Shoshone release	KAF	6.2	6	6.2	9.2	8.4	9.2	6	6.2	6	6.2	6.2	6	81.8
Generation	GWh	1.054	1.011	1.049	1.559	1.427	1.569	1.026	1.079	1.075	1.104	1.05	0.946	13.949
Maximum generation	GWh	2.232	2.16	2.232	2.232	2.016	2.232	2.16	2.232	2.16	2.232	2.232	2.16	26.28
% maximum generation	-	47	47	47	70	71	70	48	48	50	49	47	44	--
Average	kWh/AF	170	168	169	169	170	171	171	174	179	178	169	158	171
EOM power capacity	MW	2	3	3	3	3	3	3	3	3	3	2	2	--
Buffalo Bill Power Plant														
Buffalo Bill release	KAF	15.2	2.9	3	0	0	0	21.1	55.3	53.7	55.5	53.6	37.9	298.2
Generation	GWh	3.881	0.747	0.775	0	0	0	5.411	13.334	12.512	12.947	12.321	8.517	70.445
Maximum generation	GWh	12.053	10.368	9.374	0	0	0	12.182	13.392	12.96	13.392	13.392	12.96	110.073
% maximum generation	-	32	7	8	0	0	0	44	100	97	97	92	66	--
Average	kWh/AF	255	258	258	--	--	--	256	241	233	233	230	225	236
EOM power capacity	MW	16	14	13	0	0	0	17	18	18	18	17	16	--

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Spirit Mountain Power Plant														
Spirit Mountain release	KAF	22.9	0	0	0	0	0	13.3	34.4	33.3	34.4	34.4	33.3	206
Generation	GWh	1.963	0	0	0	0	0	1.161	2.55	2.185	2.267	2.138	1.844	14.108
Maximum generation	GWh	3.348	2.592	2.678	3.348	2.903	3.248	1.296	3.348	3.24	3.348	3.348	3.24	35.937
% maximum generation	-	59	0	0	0	0	0	90	76	67	68	64	57	--
Average	kWh/AF	86	--	--	--	--	--	87	74	66	66	62	55	68
EOM power capacity	MW	3	0	0	0	0	0	2	4	4	3	3	2	--
Heart Mountain Power Plant														
Heart Mountain release	KAF	14.9	0	0	0	0	0	6.3	2.4	17	17.6	13.4	18	89.6
Generation	GWh	3.567	0	0	0	0	0	1.508	0.575	4.07	4.213	3.208	4.309	21.45
Maximum generation	GWh	3.571	0	0	0	0	0	1.728	4.464	4.32	4.464	4.464	4.32	27.331
% maximum generation	-	100	0	0	0	0	0	87	13	94	94	72	100	--
Average	kWh/AF	239	--	--	--	--	--	239	240	239	239	239	239	239
EOM power capacity	MW	5	0	0	0	0	0	2	6	6	6	6	6	--
Total generation														
Total generation	GWh	10.465	1.758	1.824	1.559	1.427	1.569	9.106	17.538	19.842	20.531	18.717	15.616	119.952
EOM power capacity	MW	26	17	16	3	3	3	24	31	31	30	28	26	--

Based on reasonable minimum April–July inflow of 423 KAF.

Table WYT-33.—Monthly operating plans for WY2026 for Buffalo Bill Reservoir based on the maximum probable runoff scenario

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Buffalo Bill Reservoir (Initial content: 359.8 KAF)														
Monthly inflow	KAF	32.3	33.9	23.9	21.3	13.3	21.8	62.1	275	556.7	314.8	74.2	36	1465.3
Shoshone release	KAF	6.2	7.7	8	8	7.2	8	12.4	12.7	11.5	11.3	6.6	6	105.6
Non-power release	KAF	0	0	0	0	0	0	14.8	83.5	237.5	181.6	0	0	517.4
Total flow below dam	KAF	6.2	7.7	8	8	7.2	8	27.2	96.2	249	192.9	6.6	6	623
Buffalo Bill release	KAF	15.3	4.2	4.3	4.3	3.9	4.3	48.3	56.7	53.1	51.7	51	48.4	345.5
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 Mountain release	KAF	14.8	0	0	0	0	0	7.2	18.6	18	18.6	18.6	7.5	103.3
Heart Mountain delivery	KAF	8	0	0	0	0	0	7	36	49.5	48	41	33	222.5
Total outflow	KAF	44.6	12.2	12.6	12.6	11.4	12.6	90	207.8	369.9	311.5	117.5	95.2	1297.9
Spill/waste	KAF	0	0	0	0	0	0	0	0	154.1	181.6	0	0	335.7
EOM targets	KAF	--	463.9	--	--	--	470	475	--	623	626.3	--	--	--
EOM content	KAF	344.1	365.8	377.1	385.8	387.7	396.9	369	436.2	623	626.3	583	523.8	--
Estimated total storage	KAF	347.5	369.2	380.5	389.2	391.1	400.3	372.4	439.6	626.4	629.7	586.4	527.2	--
EOM elevation	ft	5,351.79	5,355.29	5,357.07	5,358.43	5,358.73	5,360.15	5,355.8	5,366.06	5,391.1	5,391.51	5,386.01	5,378.2	--
Net change content	KAF	-12.3	21.7	11.3	8.7	1.9	9.2	-27.9	67.2	186.8	3.3	-43.3	-59.2	167.4
Flow Below BB power	KAF	21.5	11.9	12.3	12.3	11.1	12.3	75.5	152.9	302.1	244.6	57.6	54.4	968.5
Flow Below BB power	cfs	350	200	200	200	200	200	1269	2487	5077	3978	937	914	--
Spring inflow	KAF	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6	3.7	3.7	3.6	43.6
Passing Cody Gage	KAF	40	15.5	16	16	14.4	16	86.3	175.2	323.7	266.9	79.9	65.5	1115.4
Passing Cody Gage	cfs	651	260	260	260	259	260	1450	2849	5440	4341	1299	1101	--
Shoshone Power Plant														
Shoshone release	KAF	6.2	7.7	8	8	7.2	8	12.4	12.7	11.5	11.3	6.6	6	105.6
Generation	GWh	1.06	1.32	1.388	1.398	1.263	1.408	2.157	2.225	2.157	2.232	1.311	1.162	19.081
Max generation	GWh	2.232	2.16	2.232	2.232	2.016	2.232	2.16	2.232	2.16	2.232	2.232	2.16	26.28
% Max generation	-	47	61	62	63	63	63	100	100	100	100	59	54	--
Average	kWh/AF	171	171	174	175	175	176	174	175	188	198	199	194	181
EOM power capacity	MW	3	3	3	3	3	3	3	3	3	3	3	3	--
Buffalo Bill Power Plant														
Buffalo Bill release	KAF	15.3	4.2	4.3	4.3	3.9	4.3	48.3	56.7	53.1	51.7	51	48.4	345.5
Generation	GWh	3.924	1.096	1.132	1.138	1.035	1.144	12.185	13.384	12.956	13.383	13.387	12.816	87.58
Max generation	GWh	12.053	10.368	9.374	10.714	9.677	10.714	12.182	13.392	12.96	13.392	13.392	12.96	141.178
% Max generation	-	33	11	12	11	11	11	100	100	100	100	100	99	--
Ave	kWh/AF	256	261	263	265	265	266	252	236	244	259	262	265	253
EOM power capacity	MW	16	14	13	14	14	14	17	18	18	18	18	18	--

Item	Unit	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Spirit Mountain Power Plant														
Spirit Mountain release	KAF	22.8	0	0	0	0	0	13.3	34.4	33.3	34.4	34.4	32.9	205.5
Generation	GWh	1.982	0	0	0	0	0	1.139	2.413	2.655	3.251	3.306	3.238	17.984
Max generation	GWh	3.348	2.592	2.678	3.348	2.903	1.741	1.296	3.348	3.24	3.348	3.348	3.24	34.43
% Max generation	-	59	0	0	0	0	0	88	72	82	97	99	100	--
Ave	kWh/AF	87	--	--	--	--	--	86	70	80	95	96	98	88
EOM power capacity	MW	3	0	0	0	0	0	2	4	5	5	5	4	
Heart Mountain Power Plant														
Heart Mountain release	KAF	14.8	0	0	0	0	0	7.2	18.6	18	18.6	18.6	7.5	103.3
Generation	GWh	3.543	0	0	0	0	0	1.724	4.453	4.309	4.453	4.453	1.795	24.73
Max generation	GWh	3.571	0	0	0	0	0	1.728	4.464	4.32	4.464	4.464	4.32	27.331
% Max generation	-	99	0	0	0	0	0	100	100	100	100	100	42	--
Ave	kWh/AF	239	--	--	--	--	--	239	239	239	239	239	239	239
EOM power capacity	MW	5	0	0	0	0	0	2	6	6	6	6	6	--
Total generation														
Total generation	GWh	10.509	2.416	2.52	2.536	2.298	2.552	17.205	22.475	22.077	23.319	22.457	19.011	149.375
EOM power capacity	MW	27	17	16	17	17	17	24	31	32	32	32	31	--

Based on reasonable maximum April–July inflow of 1209 KAF.

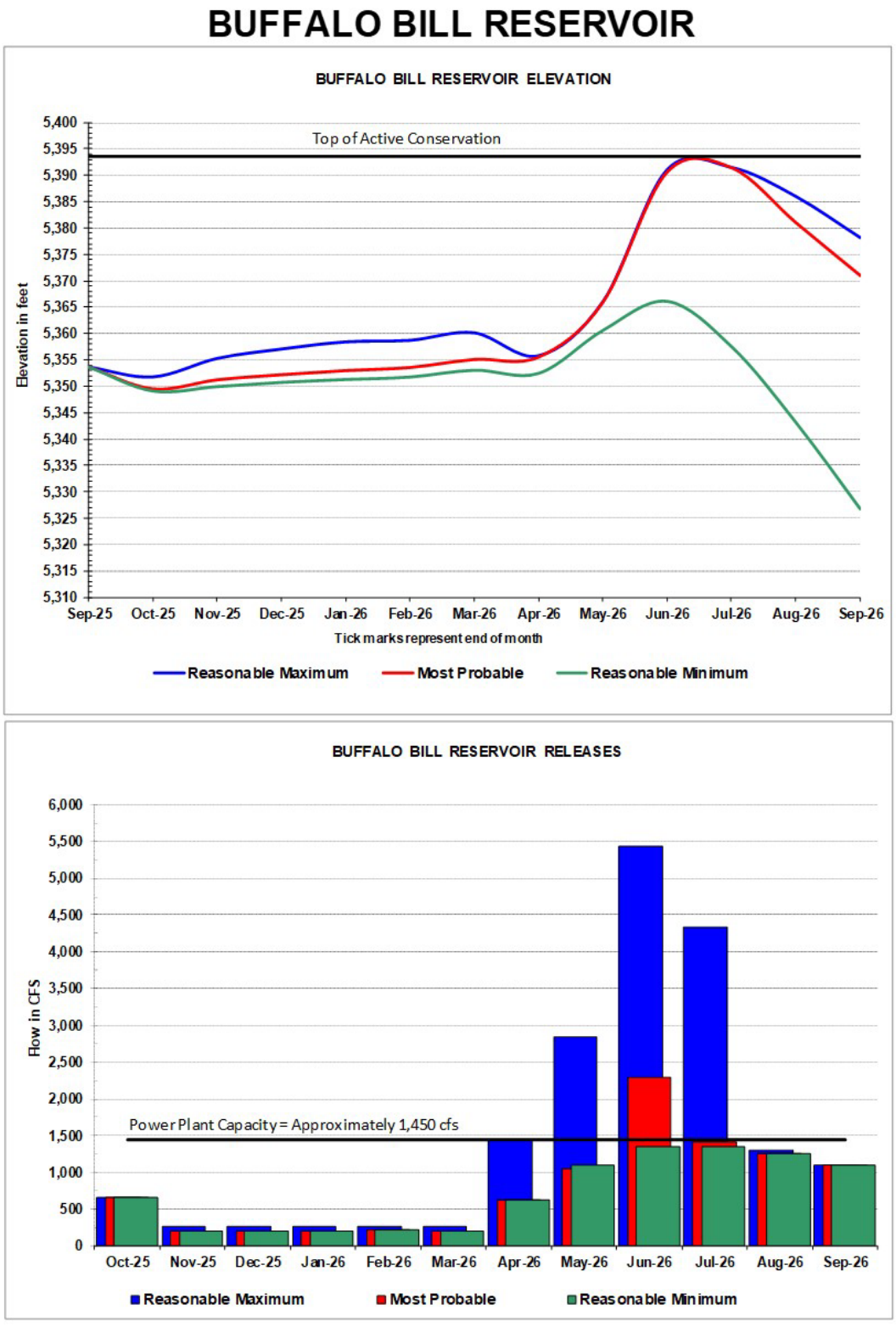


Figure WYG-8.—WY2026 forebay elevation and inflow at Buffalo Bill Reservoir under a minimum, expected, and maximum forecast.

Power Plant	Task Name	Start	Finish
Buffalo Bill	BB#3 annual minor	02/16/2026	02/26/2026
Buffalo Bill	BB#3 Check and Test	02/26/2026	03/05/2026
Buffalo Bill	BB#2 cavitation welding	03/16/2026	03/19/2026
Boysen	Rewind	1/5/2026	09/01/20/26
Heart Mountain	WAPA ICC 69KV Lines	10/20/2026	04/04/2026
Spirit Mountain	SSC inspection	04/06/2026	04/09/2026

Figure WYG-9.—WY2026 scheduled outages for Bighorn Powerplants.

Outlook and Annual Operating Plans for Water Year 2025 for Bighorn Basin Reservoirs Under the Responsibility of the Wyoming Area Office (WYAO)

Riverton Unit: Bull Lake Reservoir

Three operating plans were prepared in October 2024 to project operations under various runoff conditions during WY2025. The projected operations for three inflow scenarios are shown in tables WYT-25, 26, and 27 and figures WYG-6. The plans are prepared to show the probable limits of operations and therefore actual conditions and operations could vary widely from the most probable plan.

The primary objective of operations at Bull Lake is to provide irrigation water to Midvale. Under normal operation, the reservoir also provides flood control benefits and a water resource for fish, wildlife, and recreation. Bull Lake is operated under the following criteria and limitations:

1. Based on forecasted inflows, March–June releases are scheduled with the objective of filling the lake to a content of 151,000 AF at elevation 5804.50 ft during July.
2. During April–October, releases must be adequate to meet the irrigation needs of Midvale and downstream irrigators with senior water rights on Bull Lake Creek.
3. Based on the available water supply, non-irrigation season releases from Bull Lake to Bull Lake Creek are generally maintained between 20 and 45 cfs.
4. Reclamation identified deficiencies in the existing spillway at Bull Lake Dam and determined the preferred corrective action was to construct a new labyrinth spillway and remove the existing spillway. Reclamation awarded a contract on September 20, 2018, to Malcolm International LLC for about $44.5 million to construct the project. Actual costs are approximately $129.3 million. Construction was completed in the fall of 2024. First fill restrictions and monitoring will exist in WY2025.
5. Operations of the reservoir below elevation 5794.00 ft through the winter prevents damage to the concrete in the spillway inlet from ice. The reservoir is operated to have a storage level of 100,000 AF or less by November 30. The objective at the onset of winter is to be as close as possible to the 100,000 AF level (5,787.13 ft) and to also provide fishery habitat.

2025 Operating Plans

Operating plans have been generated for three scenarios for all months of the upcoming water year:

- Most probable inflow conditions are based on the historical median flows.
- Reasonable minimum inflow conditions are estimated to be lower decile flows. Lower decile flows are flows that have historically been exceeded 90 percent of the time.
- Reasonable maximum inflow conditions are estimated to be upper decile flows. Upper decile flows are flows that have historically been exceeded 10 percent of the time.

Bull Lake is expected to fill under the most probably and maximum inflow conditions but not under the minimum inflow plans. Water diverted into the Wyoming Canal can be delivered to Midvale lands directly or routed through Pilot Butte Reservoir and delivered to district lands via the Pilot Canal.

Table WYT-34—Monthly operating plans for WY2025 for Bull Lake Reservoir and other Riverton Unit features based on the most probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Bull Lake Reservoir (Initial content: 32.3 KAF)														
Reservoir inflow	KAF	4.7	3.1	2.7	2	1.6	2	5	27	75	37.4	17.6	8.5	186.6
Total dam release	KAF	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.9	1.8	27.5	46.9	49.2	137.9
Total dam release	cfs	25	25	25	25	25	25	25	31	31	448	763	826	
Excess release	KAF	0	0	0	0	0	0	0	0	0	25.6	0	0	25.6
EOM content	KAF	35.5	37.1	38.2	38.7	38.9	39.4	42.9	68	141.1	151	121.7	81	
EOM elevation	ft	5,759.3	5,760.2	5,760.8	5,761	5,761.1	5,761.4	5,763.1	5,774.5	5,801.4	5,804.5	5,794.9	5,779.9	
BLR net change	KAF	3.2	1.6	1.2	0.5	0.2	0.5	3.5	25.1	73.2	9.9	-29.3	-40.7	48.7
Wind River														
Flow above BL Creek	KAF	31	26.1	21.8	21.3	16.8	17.7	24	78.8	191.4	110.3	41.8	26.7	607.7
Crowheart Gage flow	KAF	32.5	27.6	23.3	22.8	18.2	19.2	25.5	80.7	193.2	137.8	88.7	75.9	745.6
Flow below diversion dam	KAF	16.1	27.6	23.3	22.8	18.2	19.2	8.1	26	128.5	53.3	24.8	18.3	386.4
Gain/return flow	KAF	0	0	0	0	0	0	4.8	7.4	7.1	7.4	6.1	5.4	38.2
Indian irrigation	KAF	1.2	0	0	0	0	0	1.8	6.1	6	6.1	5.5	4.5	31.3
LeClair/Riverton	KAF	5	0	0	0	0	0	3.5	18.8	24.2	27.2	21.1	15	114.8
LeClair/River shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverton Gage flow	cfs	161.1	463.6	379.5	371.4	327.5	312.9	127.1	137.2	1,773.6	445.1	70	70	
Wyoming Canal														
Total diversion	KAF	16.4	0	0	0	0	0	17.4	54.7	64.7	84.5	63.9	57.6	359.2
North Canal flow	KAF	0	0	0	0	0	0	9.8	26.4	31.2	40.1	36.1	27	170.6
North Canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot Butte Reservoir (Initial content: 11.8 KAF)														
Reservoir inflow	KAF	16.4	0	0	0	0	0	7.6	28.3	33.5	44.4	27.8	30.6	188.6
Power generated	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot canal release	KAF	0	0	0	0	0	0	6.7	28	33.1	43.9	37.4	33.3	182.4
Pilot canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	28	27.8	27.7	27.6	27.5	27.3	28	28	28	28	18	15	
PBR net change	KAF	16.2	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	0	0	0	-10	-3	3.2
EOM elevation	ft	5,457.8	5,457.6	5,457.5	5,457.4	5,457.3	5,457	5,457.8	5,457.8	5,457.8	5,457.8	5,445.5	5,441.3	

Based on Most probable April–July runoff of: Bull Lake – 144 KAF / Wind River ab Bull Lake Creek – 405 KAF. This plan assumes an annual demand of 171 KAF for the North Canal and 182 KAF for the Pilot Canal

Table WYT-35.—Monthly operating plans for WY2025 for Bull Lake Reservoir and other Riverton Unit features based on the minimum probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Bull Lake Reservoir (initial content: 32.3 KAF)														
Reservoir inflow	KAF	3.5	2.4	1.9	1.7	1.3	1.4	2.8	29.4	38.7	26	14.1	6	129.2
Total dam release	KAF	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.9	16.4	30.7	47.7	33.3	140.6
Total dam release	cfs	25	25	25	25	25	25	25	31	276	500	776	559	
Excess release	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	34.3	35.2	35.5	35.7	35.6	35.5	36.8	64.3	86.5	81.8	48.2	20.9	
EOM elevation	ft	5,758.7	5,759.2	5,759.4	5,759.5	5,759.4	5,759.4	5,760	5,772.9	5,782	5,780.2	5,765.7	5,751.5	
BLR net change	KAF	2	0.9	0.4	0.2	-0.1	-0.1	1.3	27.5	22.3	-4.7	-33.6	-27.3	-11.4
Wind River														
Flow above BL Creek	KAF	28	22.4	26.3	23.3	20.9	15.8	21.1	63.5	80.6	63.1	39.2	24.8	429
Crowheart Gage flow	KAF	29.5	23.9	27.8	24.8	22.3	17.3	22.6	65.4	97	93.8	86.9	58.1	569.6
Flow below diversion dam	KAF	13.1	23.9	27.8	24.8	22.3	17.3	5.2	21.9	27.2	50.8	24.8	16.5	275.7
Gain/return flow	KAF	0	0	0	0	0	0	4.8	7.4	7.1	7.4	6.1	5.4	38.2
Indian irrigation	KAF	1.2	0	0	0	0	0	1.8	6.1	6	6.1	5.5	2.7	29.5
LeClair/Riverton	KAF	5	0	0	0	0	0	3.5	18.8	24.2	27.2	21.1	15	114.8
LeClair/river shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverton Gage flow	cfs	112.3	401.4	452.7	403.9	401.3	282	78.4	70	70	404.5	70	70	
Wyoming Canal														
Total diversion	KAF	16.4	0	0	0	0	0	17.4	43.5	69.9	43	62.1	41.6	293.9
North Canal flow	KAF	0	0	0	0	0	0	9.8	26.4	31.2	36.5	34.3	24	162.2
North Canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot Butte Reservoir (initial content: 11.8 KAF)														
Reservoir inflow	KAF	16.4	0	0	0	0	0	7.6	17.1	38.7	6.5	27.8	17.6	131.7
Power generated	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot canal release	KAF	0	0	0	0	0	0	6.7	28	33.1	0	37.4	33.3	138.5
Pilot canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	28	27.8	27.7	27.6	27.5	27.3	28	16.8	22	28	18	2	
PBR net change	KAF	16.2	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	-11.2	5.2	6	-10	-16	-9.8
EOM elevation	ft	5,457.8	5,457.6	5,457.5	5,457.4	5,457.3	5,457	5,457.8	5,443.9	5,450.7	5,457.8	5,445.5	5,416.4	

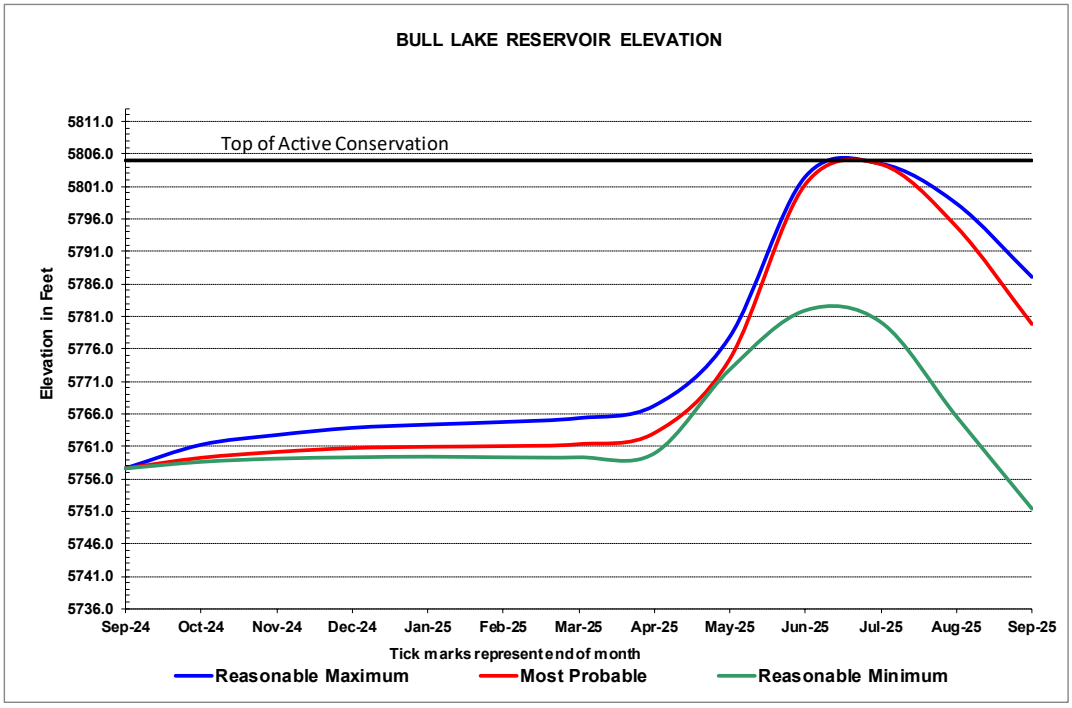
Based on minimum April–July runoff of: Bull Lake – 97 KAF/Wind River ab Bull Lake Creek – 228 KAF. This plan assumes an annual demand of 162 KAF for the North Canal and 139 KAF for the Pilot Canal

Table WYT-36.—Monthly operating plans for WY2025 for Bull Lake Reservoir and other Riverton Unit features based on the maximum probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug	Sept.	Total
Bull Lake Reservoir (initial content: 32.3 KAF)														
Reservoir inflow	KAF	8.6	4.4	3.8	2.5	2.2	2.9	5.4	30.2	94.6	77.6	27.1	12.2	271.5
Total dam release	KAF	1.5	1.5	1.5	1.5	1.4	1.5	1.5	5.5	19.9	77.6	45.9	44.4	203.8
Total dam release	cfs	25	25	25	25	25	25	25	90	334	1262	746	746	
Excess release	KAF	0	0	0	0	0	0	0	0	13.9	71.5	9	11.4	105.7
EOM content	KAF	39.4	42.3	44.5	45.5	46.3	47.7	51.6	76.3	151	151	132.2	100	
EOM elevation	ft	5,761.3	5,762.8	5,763.9	5,764.4	5,764.8	5,765.4	5,767.3	5,777.9	5,804.5	5,804.5	5,798.4	5,787.1	
BLR net change	KAF	7.1	2.9	2.3	1	0.8	1.4	3.9	24.7	74.7	0	-18.8	-32.2	67.7
Wind River														
Flow above BL Creek	KAF	37.1	32.5	30.3	34.7	28	27.5	27.9	145.3	366.8	217.1	77.4	50.6	1,075.2
Crowheart Gage flow	KAF	38.6	34	31.8	36.2	29.4	29	29.4	150.8	386.7	294.7	123.3	95	1,279
Flow below div dam	KAF	22.2	34	31.8	36.2	29.4	29	12	96.1	322	213.8	64.6	34.4	925.6
Gain/return flow	KAF	0	0	0	0	0	0	4.8	7.4	7.1	7.4	6.1	5.4	38.2
Indian irrigation	KAF	1.2	0	0	0	0	0	1.8	6.1	6	6.1	5.5	4.5	31.3
LeClair/Riverton	KAF	5	0	0	0	0	0	3.5	18.8	24.2	27.2	21.1	15	114.8
LeClair/river shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Riverton Gage flow	cfs	260.3	571.2	517.8	589.3	529.2	472.2	192.6	1,277.7	5,023.9	3,054.8	717.3	341.2	
Wyoming Canal														
Total diversion	KAF	16.4	0	0	0	0	0	17.4	54.7	64.7	80.9	58.7	60.6	353.4
North Canal flow	KAF	0	0	0	0	0	0	9.8	26.4	31.2	36.5	30.9	27	161.8
North Canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot Butte Reservoir (Initial content: 11.8 KAF)														
Reservoir inflow	KAF	16.4	0	0	0	0	0	7.6	28.3	33.5	44.4	27.8	33.6	191.6
Power generated	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
Pilot canal release	KAF	0	0	0	0	0	0	6.7	28	33.1	43.9	37.4	33.3	182.4
Pilot canal shortage	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM content	KAF	28	27.8	27.7	27.6	27.5	27.3	28	28	28	28	18	18	
PBR net change	KAF	16.2	-0.2	-0.1	-0.1	-0.1	-0.2	0.7	0	0	0	-10	0	6.2
EOM elevation	ft	5,457.8	5,457.6	5,457.5	5,457.4	5,457.3	5,457	5,457.8	5,457.8	5,457.8	5,457.8	5,445.5	5,445.5	

Based on maximum April–July runoff of: Bull Lake – 208 KAF / Wind River ab Bull Lake Creek – 757 KAF. This plan assumes an annual demand of 162 KAF for the North Canal and 182 KAF for the Pilot Canal

BULL LAKE RESERVOIR



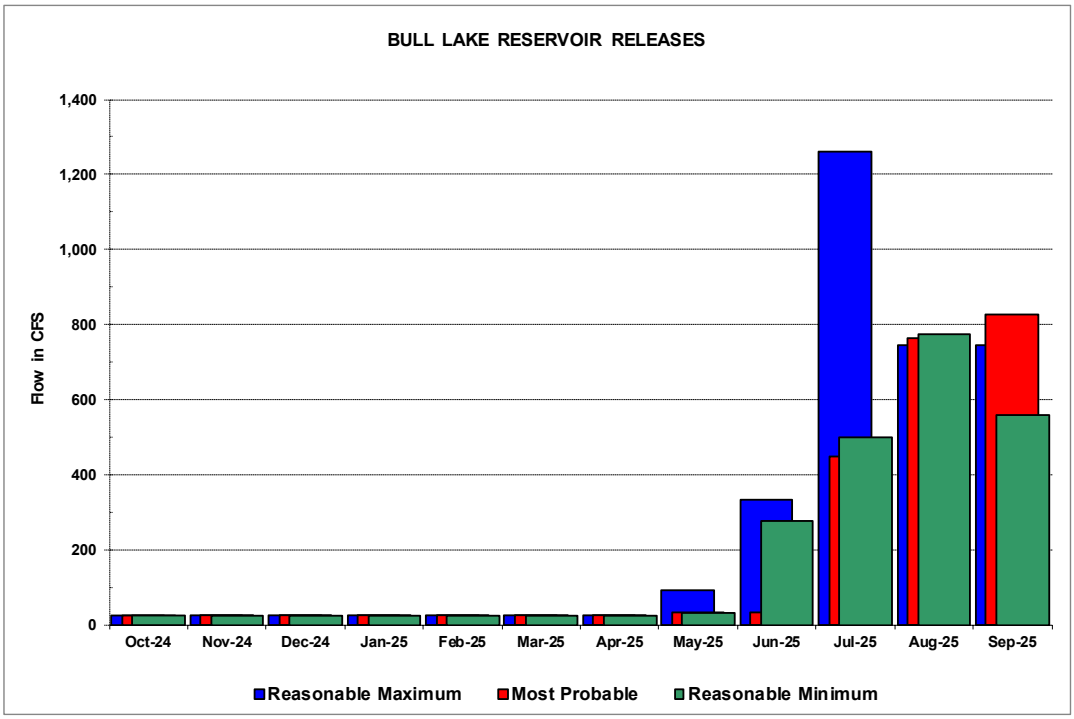


Figure WYG-10.—WY2025 forebay elevation and inflow at Bull Lake Reservoir under a minimum, expected, and maximum forecasts.

Boysen Reservoir and Powerplant

Three operating plans were prepared in October 2024 to project water operations under various inflow conditions during WY2025. The operations for the three runoff conditions are shown in tables WYT-28, 29, and 30, and figure WYG-7. These plans are presented only to show the probable limits of operations and therefore, actual conditions and operations could vary widely from the most probable plan.

The operating objectives at Boysen Dam and Reservoir are to provide water for irrigation, municipal and industrial use, and power generation; provide flood control in cooperation with the USACE; and enhance fish, wildlife, and recreation opportunities in both the reservoir and the Wind/Bighorn River.

Irrigation Season Release

During the irrigation season, water releases from Boysen Reservoir are made to satisfy all downstream senior water rights and storage contract commitments. Generally, demands for downstream senior water rights are met with a reservoir release between 900 and 1,200 cfs. Releases above what is required to meet irrigation demands may be made to manage reservoir levels and generate power.

Non-irrigation Season Release

During the non-irrigation season, releases are made to produce power, enhance the river and reservoir fishery, and provide storage space for the expected spring runoff or conserve storage if the reservoir is not expected to fill. Winter releases are generally in the range between 400 cfs and 1,150 cfs, depending on reservoir conditions going into the winter. The Wyoming Game and Fish Department considers 800 cfs to be the preferred fishery flow from October–February and flows below 600 cfs to be detrimental to the river fishery. A release of approximately 1,150 cfs can be made through one unit at Boysen Powerplant. By releasing less than the capacity of one powerplant unit, annual maintenance can be performed on the other unit during the winter months.

General Operating Procedures

1. **October–February:** Releases of water for power generation are scheduled to evacuate storage while assuring an adequate water supply for the upcoming irrigation season. It is desirable to maintain a uniform release during November–February to reduce the risk of downstream ice jams, which may cause flooding or damage to bridges and other structures.

2. **March–July:** Based upon monthly water supply forecasts and as soon as river ice conditions allow, releases are scheduled to meet the irrigation demand as a minimum. Greater releases may be made, if necessary, to eliminate or minimize a spill, with the objective of filling the reservoir to elevation 4724.50 ft (731,841 AF) by the end of July. Depending on inflows, attempts will be made to provide a reservoir level of at least elevation 4707.00 ft from the end of May through the end of August for recreational boating access. For the spawning of rainbow trout, it is desirable to have stable or slightly rising river flows from mid-March through early June. When conditions are suitable and without affecting power operations, attempts will be made to limit the drop in reservoir level to 2 ft or less during the reservoir fish spawn and hatch period (which begins in March and ends in May). A rising pool is desirable during this period.
3. **August–September:** As soon as storage has peaked, water releases are scheduled to meet the irrigation demand and generate power. Releases above what is needed to meet irrigation demand may be made to generate power and prevent the need to release water through the spillway gates if inflow conditions warrant.

2025 Operating Plans

Operating plans have been generated for three scenarios for all months of the upcoming water year:

- Most probable inflow conditions are based on the historical median flows.
- Reasonable minimum inflow conditions are estimated to be lower decile flows. Lower decile flows are flows that have historically been exceeded 90 percent of the time.
- Reasonable maximum inflow conditions are estimated to be upper decile flows. Upper decile flows are flows that have historically been exceeded 10 percent of the time.

Annual operating plans are found in tables WYT-28, 29, and 30 and figure WYG-7. Turbine unit outage schedules are found in figure WYG-9.

Table WYT-37.—Monthly operating plans for WY2025 for Boysen Reservoir based on the most probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Boysen Reservoir (initial content: 573.1 KAF)														
Monthly inflow	KAF	51.2	51.8	36.9	39	39.4	49.4	43.5	161	317.5	134.2	40.7	37	1,001.6
Monthly inflow	cfs	833	871	600	634	709	803	731	2,618	5,336	2,183	662	622	
Turbine release	KAF	55.3	41.7	43	43	38.9	43	74.8	101.5	134.1	122.3	83	73.7	854.3
Bypass/spill/waste	KAF	0	0	0	0	0	0	0	0	67.5	0	0	0	67.5
Total release	KAF	55.3	41.7	43	43	38.9	43	74.8	101.5	201.6	122.3	83	73.7	921.8
Total release	cfs	899	701	699	699	700	699	1,257	1,651	3,388	1,989	1,350	1,239	–
EOM content	KAF	569	579.1	573	569	569.5	575.9	544.6	604.1	720	731.9	689.6	652.9	–
EOM elevation	ft	4,715.21	4,715.86	4,715.47	4,715.21	4,715.24	4,715.65	4,713.61	4,717.41	4,723.89	4,724.5	4,722.27	4,720.25	–
Net change content	KAF	-4.1	10.1	-6.1	-4	0.5	6.4	-31.3	59.5	115.9	11.9	-42.3	-36.7	79.8
Boysen Power Plant														
Turbine release	KAF	55.3	41.7	43	43	38.9	43	74.8	101.5	134.1	122.3	83	73.7	854.3
Turbine release	cfs	899	701	699	699	700	699	1,257	1,651	2,254	1,989	1,350	1,239	–
Generation	GWh	4.643	3.522	3.636	3.625	3.276	3.629	6.199	8.44	11.519	10.992	7.465	6.51	73.456
Max generation	GWh	11.904	11.52	11.904	11.904	10.752	11.904	11.52	11.904	11.52	11.904	11.904	11.52	140.16
% Max generation	%	39	31	31	30	30	30	54	71	100	92	63	57	–
Average	kWh/AF	84	84	85	84	84	84	83	83	86	90	90	88	86
EOM power capacity	MW	16	16	16	16	16	16	16	16	16	16	16	16	–

Based on most probable April–July inflow of 656 KAF.

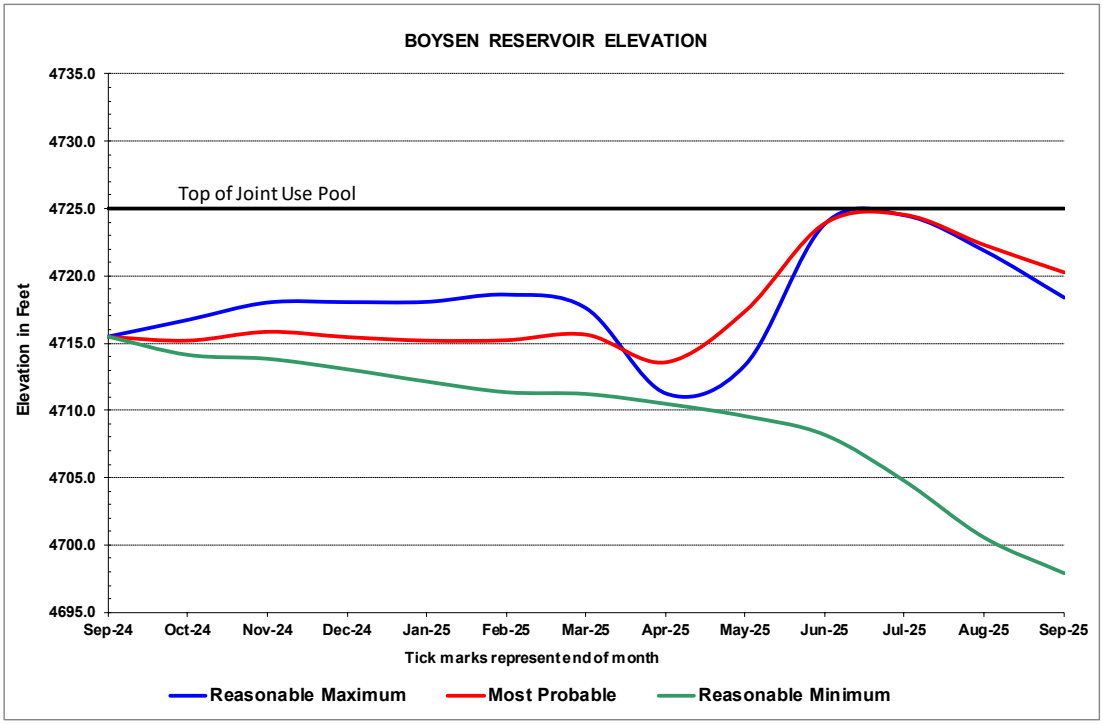
Table WYT-38.—Monthly operating plans for WY2025 for Boysen Reservoir based on the minimum probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Boysen Reservoir (initial content: 573.1 KAF)														
Monthly inflow	KAF	34.7	37.3	31.3	29.7	27.6	41.2	31.4	61	58.7	29.9	24.2	36.3	443.3
Monthly inflow	cfs	564	627	509	483	497	670	528	992	986	486	394	610	–
Turbine release	KAF	55.3	41.7	43	43	38.9	43	41.7	73.8	77.4	73.8	73.8	65.5	670.9
Bypass/spill/waste	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Total release	KAF	55.3	41.7	43	43	38.9	43	41.7	73.8	77.4	73.8	73.8	65.5	670.9
Total release	cfs	899	701	699	699	700	699	701	1,200	1,301	1,200	1,200	1,101	
EOM content	KAF	552.5	548.1	536.4	523.1	511.8	510	499.7	486.9	468.2	424.3	374.7	345.5	
EOM elevation	ft	4,714.13	4,713.84	4,713.06	4,712.15	4,711.36	4,711.23	4,710.5	4,709.58	4,708.19	4,704.76	4,700.57	4,697.94	
Net change content	KAF	-20.6	-4.4	-11.7	-13.3	-11.3	-1.8	-10.3	-12.8	-18.7	-43.9	-49.6	-29.2	-227.6
Boysen Power Plant														
Turbine release	KAF	55.3	41.7	43	43	38.9	43	41.7	73.8	77.4	73.8	73.8	65.5	670.9
Turbine release	cfs	899	701	699	699	700	699	701	1,200	1,301	1,200	1,200	1,101	
Generation	GWh	4.619	3.469	3.558	3.528	3.165	3.482	3.362	5.831	5.996	5.526	5.205	4.38	52.121
Max generation	GWh	11.904	11.52	11.904	11.904	10.752	11.904	11.52	11.904	11.52	11.904	11.904	11.52	140.16
% Max generation	%	39	30	30	30	29	29	29	49	52	46	44	38	
Average	kWh/AF	84	83	83	82	81	81	81	79	77	75	71	67	78
EOM power capacity	MW	16	16	16	16	15	15	15	15	14	13	12	12	

Table WYT-39.—Monthly operating plans for WY2025 for Boysen Reservoir based on the maximum probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Boysen Reservoir (initial content: 573.1 KAF)														
Monthly inflow	KAF	75	62.9	43.5	43.5	48	62.8	81.6	277.3	578	258.6	75.6	60	1,666.8
Monthly inflow	cfs	1,220	1,057	707	707	864	1,021	1,371	4,510	9,714	4,206	1,230	1,008	
Turbine release	KAF	55.3	41.7	43	43	38.9	79.9	137.3	139.6	138.5	134.8	125.6	121.5	1,099.1
Bypass/spill/waste	KAF	0	0	0	0	0	0	41.2	106.4	260.9	111.9	0	0	520.4
Total release	KAF	55.3	41.7	43	43	38.9	79.9	178.5	246	399.4	246.7	125.6	121.5	1,619.5
Total release	cfs	899	701	699	699	700	1,299	3,000	4,001	6,712	4,012	2,043	2,042	
EOM content	KAF	592.8	614	614.5	615	624.1	607	510.1	541.4	720	731.9	681.9	620.4	
EOM elevation	ft	4,716.72	4,718.01	4,718.04	4,718.06	4,718.6	4,717.58	4,711.24	4,713.39	4,723.89	4,724.5	4,721.86	4,718.38	
Net change content	KAF	19.7	21.2	0.5	0.5	9.1	-17.1	-96.9	31.3	178.6	11.9	-50.0	-61.5	47.3
Boysen Power Plant														
Turbine release	KAF	55.3	41.7	43	43	38.9	79.9	137.3	139.6	138.5	134.8	125.6	121.5	1,099.1
Turbine release	cfs	899	701	699	699	700	1,299	2,307	2,270	2,328	2,192	2,043	2,042	
Generation	GWh	4.677	3.584	3.719	3.72	3.375	6.844	11.132	10.907	11.431	11.901	11.18	10.512	92.982
Max generation	GWh	11.904	11.52	11.904	5.952	8.817	11.904	11.52	11.904	11.52	11.904	11.904	11.52	132.273
% Max generation	%	39	31	31	63	38	57	97	92	99	100	94	91	
Average	kWh/AF	85	86	86	87	87	86	81	78	83	88	89	87	85
EOM power capacity	MW	16	16	16	16	16	16	15	15	16	16	16	16	

BOYSEN RESERVOIR



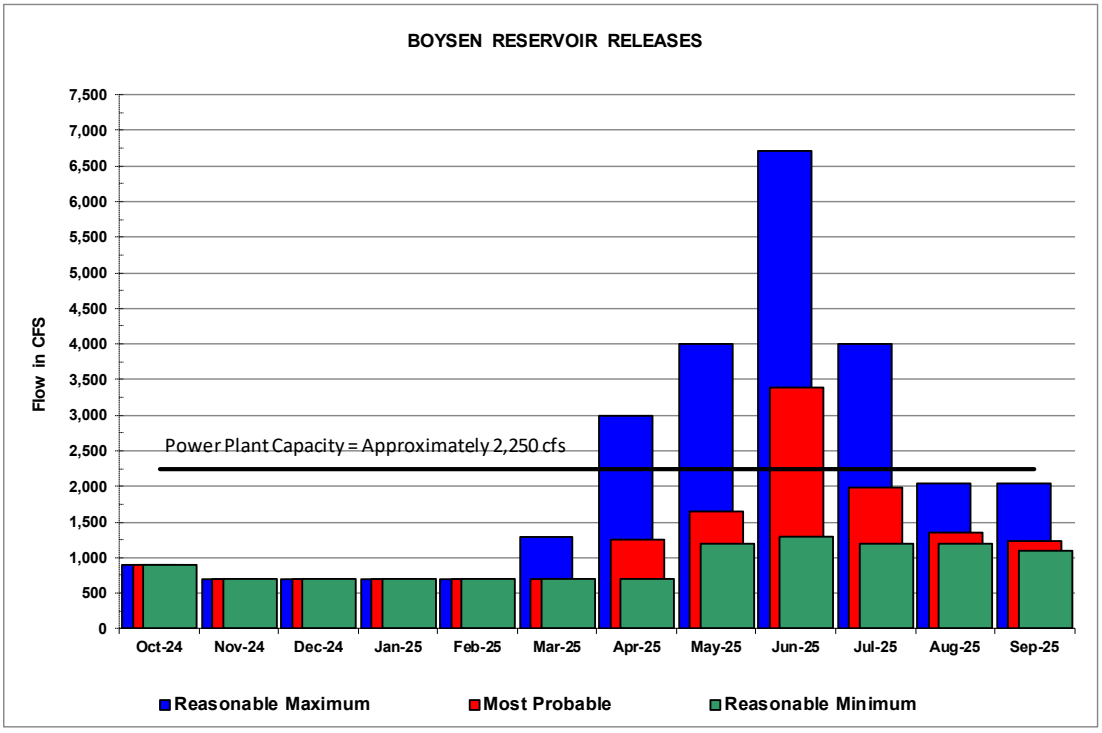


Figure WYG-11.—WY2025 forebay elevation and inflow at Boysen Reservoir under a minimum, expected, and maximum forecast.

Buffalo Bill Reservoir and Powerplants

Three operating plans were prepared for WY2025 to show the operations of Buffalo Bill Reservoir that could occur under various runoff conditions. The operations for the three runoff conditions are shown in tables WYT-31, 32, and 33 and figure WYG-8. These plans were prepared only to show the probable limits of operations; therefore, actual conditions and operations could vary widely from the most probable plan.

Normal Operating Procedures

At the end of the irrigation season, releases will be adjusted with the objective of filling the reservoir to elevation 5393.50 ft (646,565 AF) while meeting the release criteria of the **Buffalo Bill Reservoir Enlargement Winter Release Operation Agreement** *(*Agreement). Under the Agreement, Buffalo Bill Reservoir will be operated to ensure that a minimum flow of 100 cfs is always provided in the river below the dam. Additional winter releases beyond the 100 cfs minimum release up to a combined total of 350 cfs in the river below Buffalo Bill Powerplant will be provided based on the criteria set forth in the Agreement.

Reservoir releases to meet downstream irrigation requirements will, to the extent possible, be made through the most efficient power turbines available, after meeting winter flow requirements. A release of at least 100 cfs will be made through the Shoshone Powerplant, whenever the powerplant is available, to provide the required river flow directly below the dam. If the Shoshone Powerplant is not available, the release will be made through the jet flow valve at the dam.

During irrigation season, releases are determined by the requirements for irrigation, and municipal and industrial demand. If snow conditions, inflow, and reservoir content indicate an assured fill of the reservoir, additional releases may be required after the start of the spring runoff to provide flood control and make optimum use of the water for power generation. An attempt is made to maintain a release of 7,000 cfs or less during the runoff season and assures that outflow is less than inflow at all times of flood rate inflow.

2025 Operating Plans

Under most probable inflow conditions, projected inflows for October, November, and December of WY2025 have been adjusted to reflect the recent trends for the basin. Inflows for January through September of WY2024 are median flows or flows that have historically been exceeded 50 percent of the time.

The reasonable minimum volumes are determined from historical lower decile flows for all months of WY2025. A lower decile flow is a flow that has historically been exceeded 90 percent of the time.

Upper decile volumes are determined from flows that have historically been exceeded 10 percent of the time. These values are projected for January through September of WY2025 in the reasonable maximum inflows operating plan.

At the end of WY2024, storage in Buffalo Bill Reservoir was 400,840 AF. Winter releases under all three scenarios are the same as defined by the AOP. Based on the criteria set forth in the Agreement, the 2025 winter release would be 200 cfs. Ice in the Shoshone River can limit Reclamation's ability to change releases during the winter months due to the potential of ice jams near Lovell, WY.

The Shoshone, Buffalo Bill, Heart Mountain, and Spirit Mountain Powerplants will all be available for power generation in WY2025 after all the winter maintenance is completed. Heart Mountain and Spirit Mountain Powerplants do not normally operate during the non-irrigation season. Releases from Buffalo Bill Reservoir will be dependent upon the most efficient operation of all the powerplants while providing the required flow in the Shoshone River.

Table WYT-40.—Monthly operating plans for WY2025 for Buffalo Bill Reservoir based on the most probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Buffalo Bill Reservoir (initial content: 400.8 KAF)														
Monthly inflow	KAF	24.3	23	15.3	14.9	12.4	20.6	43.4	166	366.5	138.9	37.7	20.7	883.7
Shoshone release	KAF	6.2	6	6.2	6.2	5.6	6.2	6	10.1	11.5	11.2	6.2	6	87.4
Non-power release	KAF	0	0	0	0	0	0	0	0	42.9	1.5	0	0	44.4
Total flow below dam	KAF	6.2	6	6.2	6.2	5.6	6.2	6	10.1	54.4	12.7	6.2	6	131.8
Buffalo bill release	KAF	15.2	5.9	6.1	6.1	5.5	6.1	44.9	56.6	52.1	51.5	50.2	49.6	349.8
Municipal delivery	KAF	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	2.9
Heart Mountain release	KAF	14.9	0	0	0	0	0	6.3	18.6	18	18.6	16.8	9.2	102.4
Heart Mountain delivery	KAF	12.2	0	0	0	0	0	7	36.5	42.9	49.5	45.1	32.6	225.8
Total outflow	KAF	48.7	12.1	12.5	12.5	11.3	12.5	64.4	122.1	167.7	132.6	118.6	97.7	812.7
Spill/waste	KAF	0	0	0	0	0	0	0	0	42.9	0.4	0	0	43.3
EOM targets	KAF		463.9	463.9		463.9	463.9	470		620	626.3		475	
EOM content	KAF	373	383.9	386.7	389.1	390.2	398.3	377.3	421.2	620	626.3	545.4	468.4	
Est total storage	KAF	376.4	387.3	390.1	392.5	393.6	401.7	380.7	424.6	623.4	629.7	548.8	471.8	
EOM elevation	ft	5,356.43	5,358.14	5,358.57	5,358.95	5,359.12	5,360.37	5,357.1	5,363.85	5,390.72	5,391.51	5,381.08	5,370.63	
Net change content	KAF	-24.4	10.9	2.8	2.4	1.1	8.1	-21	43.9	198.8	6.3	-80.9	-77	71
Flow below BB power	KAF	21.4	11.9	12.3	12.3	11.1	12.3	50.9	66.7	106.5	64.2	56.4	55.6	481.6
Flow below BB power	cfs	348	200	200	200	200	200	855	1,085	1,790	1,044	917	934	
Spring inflow	KAF	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6	3.7	3.7	3.6	43.6
Passing Cody Gage	KAF	40	15.5	16	16	14.4	16	60.8	89	128.1	86.5	76.9	68.4	627.6
Passing Cody Gage	cfs	651	260	260	260	259	260	1,022	1,447	2,153	1,407	1,251	1,150	
Shoshone Power Plant														
Shoshone release	KAF	6.2	6	6.2	6.2	5.6	6.2	6	10.1	11.5	11.2	6.2	6	87.4
Generation	GWh	1.087	1.047	1.087	1.089	0.985	1.094	1.054	1.785	2.168	2.241	1.22	1.133	15.99
Max generation	GWh	2.232	2.16	2.232	2.232	2.016	1.562	2.16	2.232	2.16	2.232	2.232	2.16	25.61
% Max generation	%	49	48	49	49	49	70	49	80	100	100	55	52	
Average	kWh/AF	175	175	175	176	176	176	176	177	189	200	197	189	183
EOM power capacity	MW	3	3	3	3	3	2	3	3	3	3	3	3	
Buffalo Bill Power Plant														
Buffalo Bill release	KAF	15.2	5.9	6.1	6.1	5.5	6.1	44.9	56.6	52.1	51.5	50.2	49.6	349.8
Generation	GWh	3.962	1.558	1.617	1.619	1.461	1.624	11.441	13.386	12.965	13.39	13.039	12.806	88.868
Max generation	GWh	12.053	10.368	9.374	10.714	9.677	10.714	12.182	13.392	12.96	13.392	13.392	12.96	141.178
% Max generation	%	33	15	17	15	15	15	94	100	100	100	97	99	
Average	kWh/AF	261	264	265	265	266	266	255	237	249	260	260	258	254
EOM power capacity	MW	16	14	13	14	14	14	17	18	18	18	18	18	
Spirit Mountain Power Plant														
Spirit Mountain release	KAF	27.1	0	0	0	0	0	13.3	34.4	33.3	34.4	34.4	33.3	210.2
Generation	GWh	2.475	0	0	0	0	0	1.165	2.39	2.758	3.222	3.204	3.051	18.265
Max generation	GWh	3.348	2.592	2.678	3.348	2.903	3.248	1.296	3.348	3.24	3.348	3.348	3.24	35.937
% Max generation	%	74	0	0	0	0	0	90	71	85	96	96	94	
Average	kWh/AF	91						88	69	83	94	93	92	87
EOM power capacity	MW	3	0	0	0	0	0	2	4	5	5	4	4	
Heart Mountain Power Plant														

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Heart Mountain release	KAF	14.9	0	0	0	0	0	6.3	18.6	18	18.6	16.8	9.2	102.4
Generation	GWh	3.567	0	0	0	0	0	1.508	4.453	4.309	4.453	4.022	2.202	24.514
Max generation	GWh	3.571	0	0	0	0	0	1.728	4.464	4.32	4.464	4.464	4.32	27.331
% Max generation	%	100	0	0	0	0	0	87	100	100	100	90	51	
Average	kWh/AF	239						239	239	239	239	239	239	239
EOM power capacity	MW	5	0	0	0	0	0	2	6	6	6	6	6	–
Total Generation														
Total generation	GWh	11.091	2.605	2.704	2.708	2.446	2.718	15.168	22.014	22.2	23.306	21.485	19.192	147.637
EOM power capacity	MW	27	17	16	17	17	16	24	31	32	32	31	31	

Based on most probable inflow of 715 KAF.

Table WYT-41.—Monthly operating plans for WY2025 for Buffalo Bill Reservoir based on the minimum probable runoff scenario

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Buffalo Bill Reservoir (initial content: 400.8 KAF)														
Monthly inflow	KAF	18	18.4	14.3	12.9	11.5	19.4	37.1	152.1	163.2	70.8	28.2	14.6	560.5
Shoshone release	KAF	6.2	6	6.2	6.2	5.6	6.2	6	6.2	6	6.2	6.2	6	73
Non-power release	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
Total flow below dam	KAF	6.2	6	6.2	6.2	5.6	6.2	6	6.2	6	6.2	6.2	6	73
Buffalo bill release	KAF	15.2	5.9	6.1	6.1	5.5	6.1	21.1	54.4	51.9	54.1	55.6	52.9	334.9
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 Mountain release	KAF	14.9	0	0	0	0	0	6.3	12.6	12.9	12.9	11.4	5.9	76.9
Heart Mountain delivery	KAF	8	0	0	0	0	0	7	36	42	48	41	33	215
Total outflow	KAF	44.6	12.2	12.6	12.6	11.4	12.6	40.7	109.5	113.1	121.5	114.5	98.1	703.4
Spill/waste	KAF	0	0	0	0	0	0	0	0	0	0	0	0	0
EOM targets	KAF		463.9					470		623	626.2		475	
EOM content	KAF	370.8	377	378.7	379	379.1	385.9	382.3	424.9	475	424.3	338	254.5	
Estimated total storage	KAF	374.2	380.4	382.1	382.4	382.5	389.3	385.7	428.3	478.4	427.7	341.4	257.9	
EOM elevation	ft	5,356.08	5,357.06	5,357.32	5,357.37	5,357.39	5,358.45	5,357.89	5,364.41	5,371.55	5,364.32	5,350.79	5,335.7	
Net change content	KAF	-26.6	6.2	1.7	0.3	0.1	6.8	-3.6	42.6	50.1	-50.7	-86.3	-83.5	-142.9
Flow below BB power	KAF	21.4	11.9	12.3	12.3	11.1	12.3	27.1	60.6	57.9	60.3	61.8	58.9	407.9
Flow Below BB power	cfs	348	200	200	200	200	200	455	986	973	981	1,005	990	
Spring inflow	KAF	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6	3.7	3.7	3.6	43.6
Passing Cody Gage	KAF	40	15.5	16	16	14.4	16	37	76.9	74.4	76.9	76.9	68.4	528.4
Passing Cody Gage	cfs	651	260	260	260	259	260	622	1,251	1,250	1,251	1,251	1,150	
Shoshone Power Plant														
Shoshone release	KAF	6.2	6	6.2	6.2	5.6	6.2	6	6.2	6	6.2	6.2	6	73
Generation	GWh	1.086	1.044	1.081	1.082	0.978	1.085	1.051	1.1	1.096	1.133	1.084	0.984	12.804
Max generation	GWh	2.232	2.16	2.232	2.232	2.016	1.562	2.16	2.232	2.16	2.232	2.232	2.16	25.61
% max generation	%	49	48	48	48	49	69	49	49	51	51	49	46	
Average	kWh/AF	175	174	174	175	175	175	175	177	183	183	175	164	175
EOM power capacity	MW	3	3	3	3	3	2	3	3	3	3	3	2	
Buffalo Bill Power Plant														
Buffalo Bill release	KAF	15.2	5.9	6.1	6.1	5.5	6.1	21.1	54.4	51.9	54.1	55.6	52.9	334.9

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Generation	GWh	3.97	1.555	1.611	1.612	1.453	1.615	5.511	13.129	12.669	13.082	13.118	12.129	81.454
Max generation	GWh	12.053	10.368	9.374	10.714	9.677	10.714	12.182	13.392	12.96	13.392	13.392	12.96	141.178
% max generation	%	33	15	17	15	15	15	45	98	98	98	98	94	
Average	kWh/AF	261	264	264	264	264	265	261	241	244	242	236	229	243
EOM power capacity	MW	16	14	13	14	14	14	17	18	18	18	17	17	
Spirit Mountain Power Plant														
Spirit Mountain release	KAF	22.9	0	0	0	0	0	13.3	34.4	33.3	34.4	34.4	33.3	206
Generation	GWh	2.105	0	0	0	0	0	1.228	2.554	2.567	2.57	2.364	2.052	15.44
Max generation	GWh	3.348	2.592	2.678	3.348	2.903	3.248	1.296	3.348	3.24	3.348	3.348	3.24	35.937
% Max generation	%	63	0	0	0	0	0	95	76	79	77	71	63	
Average	kWh /AF	92						92	74	77	75	69	62	75
EOM power capacity	MW	3	0	0	0	0	0	2	4	4	4	3	3	
Heart Mountain Power Plant														
Heart Mountain release	KAF	14.9	0	0	0	0	0	6.3	12.6	12.9	12.9	11.4	5.9	76.9
Generation	GWh	3.567	0	0	0	0	0	1.508	3.016	3.088	3.088	2.729	1.412	18.408
Max generation	GWh	3.571	0	0	0	0	0	1.728	4.464	4.32	4.464	4.464	4.32	27.331
% max generation	%	100	0	0	0	0	0	87	68	71	69	61	33	
Average	kWh /AF	239						239	239	239	239	239	239	239
EOM power capacity	MW	5	0	0	0	0	0	2	6	6	6	6	6	
Total Generation														
Total generation	GWh	10.728	2.599	2.692	2.694	2.431	2.7	9.298	19.799	19.42	19.873	19.295	16.577	128.106
EOM power capacity	MW	27	17	16	17	17	16	24	31	31	31	29	28	

Based on reasonable minimum April–July inflow of 432 KAF.

Table WYT-42.—Monthly operating plans for WY2025 for Buffalo Bill Reservoir based on the maximum probable runoff scenario

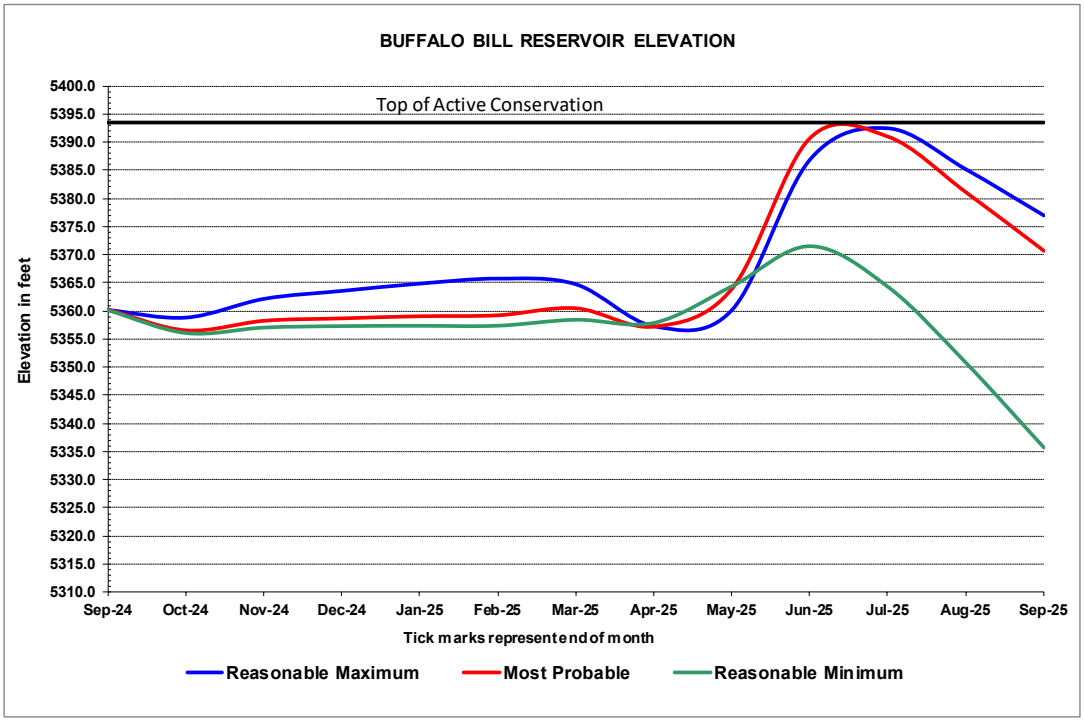
Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Buffalo Bill Reservoir (initial content: 400.8 KAF)														
Monthly inflow	KAF	35.3	33.9	21.9	21.3	17.5	32.6	62.1	275	556.7	314.8	65	36	1,472.1
Shoshone release	KAF	6.2	7.7	8	8	7.2	8	12.3	12.9	11.8	11.4	6.2	6	105.7
Non-power release	KAF	0	0	0	0	0	0	36.2	131.4	238.2	148.1	0	0	553.9
Total flow below dam	KAF	6.2	7.7	8	8	7.2	8	48.5	144.3	250	159.5	6.2	6	659.6
Buffalo Bill release	KAF	15.3	4.2	4.3	4.3	3.9	31.3	47.8	57.2	53.2	52.1	49.5	48.6	371.7
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 Mountain release	KAF	14.8	0	0	0	0	0	7.2	18.6	18	18.6	17.5	10.2	104.9
Heart Mountain delivery	KAF	8	0	0	0	0	0	7	36	42	48	41	33	215
Total outflow	KAF	44.6	12.2	12.6	12.6	11.4	39.6	110.8	256.4	363.5	278.5	114.5	98.1	1,354.8
Spill/waste	KAF	0	0	0	0	0	0	0	131.4	238.2	144.7	0	0	5,14.3
EOM targets	KAF		463.9	463.9	463.9	463.9	470	475		590	626.3			
EOM content	KAF	388.1	409.8	419.1	427.8	433.9	426.9	378.2	396.8	590	626.3	576.8	514.7	
Estimated total storage	KAF	391.5	413.2	422.5	431.2	437.3	430.3	381.6	400.2	593.4	629.7	580.2	518.1	
EOM elevation	ft	5,358.79	5,362.13	5,363.54	5,364.84	5,365.73	5,364.71	5,357.24	5,360.14	5,386.91	5,391.51	5,385.2	5,376.98	
Net change content	KAF	-9.3	21.7	9.3	8.7	6.1	-7	-48.7	18.6	193.2	36.3	-49.5	-62.1	117.3
Flow below BB power	KAF	21.5	11.9	12.3	12.3	11.1	39.3	96.3	201.5	303.2	211.6	55.7	54.6	1,031.3

Upper Missouri River Basin
Summary of Actual Operations WY2025
Annual Operating Plans WY2026

Item	Unit	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Flow below BB power	cfs	350	200	200	200	200	639	1,618	3,277	5,095	3,441	906	918	
Spring inflow	KAF	3.7	3.6	3.7	3.7	3.3	3.7	3.6	3.7	3.6	3.7	3.7	3.6	43.6
Passing Cody Gage	KAF	40	15.5	16	16	14.4	43	107.1	223.8	324.8	233.9	76.9	68.4	1,179.8
Passing Cody Gage	cfs	651	260	260	260	259	699	1,800	3,640	5,458	3,804	1,251	1,150	
Shoshone Power Plant														
Shoshone release	KAF	6.2	7.7	8	8	7.2	8	12.3	12.9	11.8	11.4	6.2	6	105.7
Generation	GWh	1.092	1.361	1.429	1.437	1.3	1.444	2.162	2.23	2.169	2.237	1.23	1.157	19.248
Max generation	GWh	2.232	2.16	2.232	2.232	2.016	1.562	2.16	2.232	2.16	2.232	2.232	2.16	25.61
% Max generation	%	49	63	64	64	64	92	100	100	100	100	55	54	
Average	kWh /AF	176	177	179	180	181	181	176	173	184	196	198	193	182
EOM power capacity	MW	3	3	3	3	3	2	3	3	3	3	3	3	
Buffalo Bill Power Plant														
Buffalo Bill release	KAF	15.3	4.2	4.3	4.3	3.9	31.3	47.8	57.2	53.2	52.1	49.5	48.6	371.7
Generation	GWh	4.014	1.121	1.157	1.162	1.058	8.367	12.181	13.343	12.96	13.394	13.043	12.767	94.567
Max generation	GWh	12.053	10.368	9.374	10.714	9.677	10.714	12.182	13.392	12.96	13.392	13.392	12.96	141.178
% max generation	%	33	11	12	11	11	78	100	100	100	100	97	99	
Average	kWh /AF	262	267	269	270	271	267	255	233	244	257	263	263	254
EOM power capacity	MW	16	14	13	14	14	14	17	18	18	18	18	18	
Spirit Mountain Power Plant														
Spirit Mountain release	KAF	22.8	0	0	0	0	0	13.3	34.4	33.3	34.4	34.4	33.3	205.9
Generation	GWh	2.124	0	0	0	0	0	1.178	2.331	2.641	3.178	3.337	3.205	17.994
Max generation	GWh	3.348	2.592	2.678	3.348	2.903	1.741	1.296	3.348	3.24	3.348	3.348	3.24	34.43
% max generation	%	63	0	0	0	0	0	91	70	82	95	100	99	
Average	kWh /AF	93						89	68	79	92	97	96	87
EOM power capacity	MW	3	0	0	0	0	0	2	4	5	5	5	4	
Heart Mountain Power Plant														
Heart Mountain release	KAF	14.8	0	0	0	0	0	7.2	18.6	18	18.6	17.5	10.2	104.9
Generation	GWh	3.543	0	0	0	0	0	1.724	4.453	4.309	4.453	4.189	2.442	25.113
Max generation	GWh	3.571	0	0	0	0	0	1.728	4.464	4.32	4.464	4.464	4.32	27.331
% max generation	%	99	0	0	0	0	0	100	100	100	100	94	57	
Average	kWh /AF	239						239	239	239	239	239	239	239
EOM power capacity	MW	5	0	0	0	0	0	2	6	6	6	6	6	
Total Generation														
Total generation	GWh	10.773	2.482	2.586	2.599	2.358	9.811	17.245	22.357	22.079	23.262	21.799	19.571	156.922
EOM power capacity	MW	27	17	16	17	17	16	24	31	32	32	32	31	

Based on reasonable maximum April–July inflow of 1,209 KAF.

BUFFALO BILL RESERVOIR



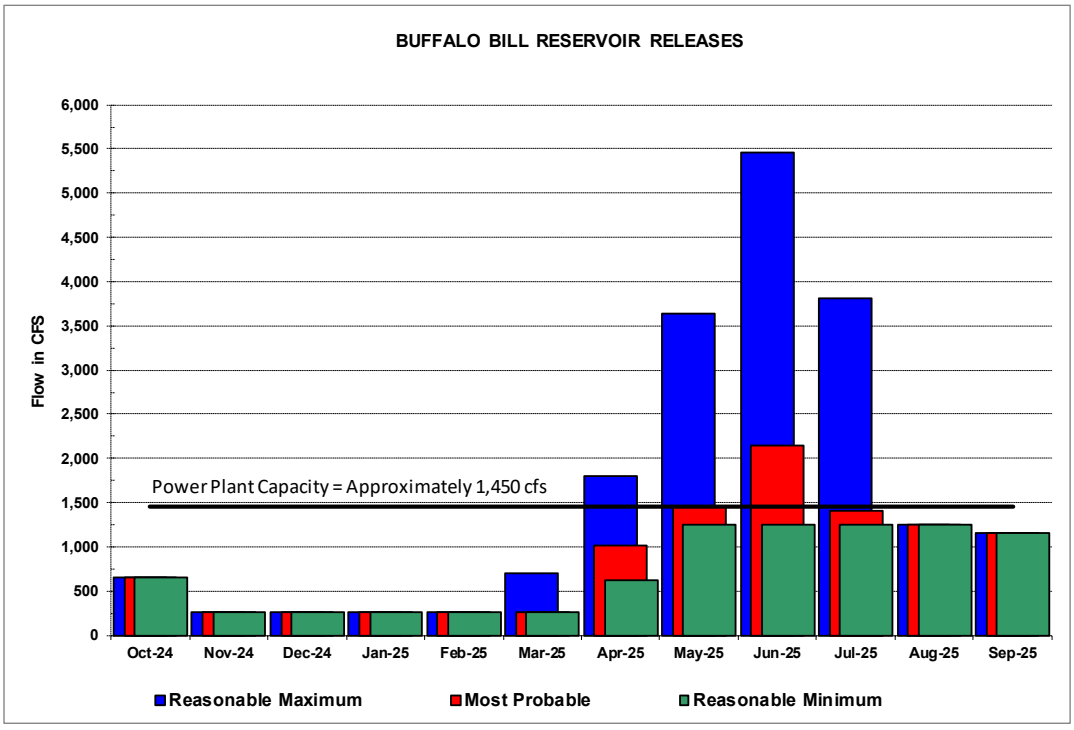


Figure WYG-12.—WY2025 forebay elevation and inflow at Buffalo Bill Reservoir under a minimum, expected, and maximum forecast.

Table WYT-43—WY2025 scheduled outages for Bighorn Powerplants

Power Plant	Task Name	Start	Finish
Buffalo Bill	BB#1 cavitation repair	01/23/2025	01/30/2025
Buffalo Bill	BBP - KZ1A and BBP - 718	2/17/2025	02/18/2025
Buffalo Bill	BBP - KZ2A and BBP - 818	2/19/2025	2/20/2025
Boysen	Unit 2 STATOR	1/28/2025	2/13/2025
Boysen	B No. 2 annual maintenance	2/10/2025	2/13/2025
Heart Mountain	HM No. 1 annual	2/10/2025	3/20/2025
Heart Mountain	HM BKR 114 and 124	2/10/2025	2/10/2025
Heart Mountain	HM BKR 114 and 124	2/11/2025	2/11/2025
Heart Mountain	HM BKR 114 and 124	2/12/2025	2/12/2025
Heart Mountain	HM BKR 114 and 124	2/13/2025	2/13/2025
Heart Mountain	HM No. 1 penstock repairs	3/10/2025	3/17/2025

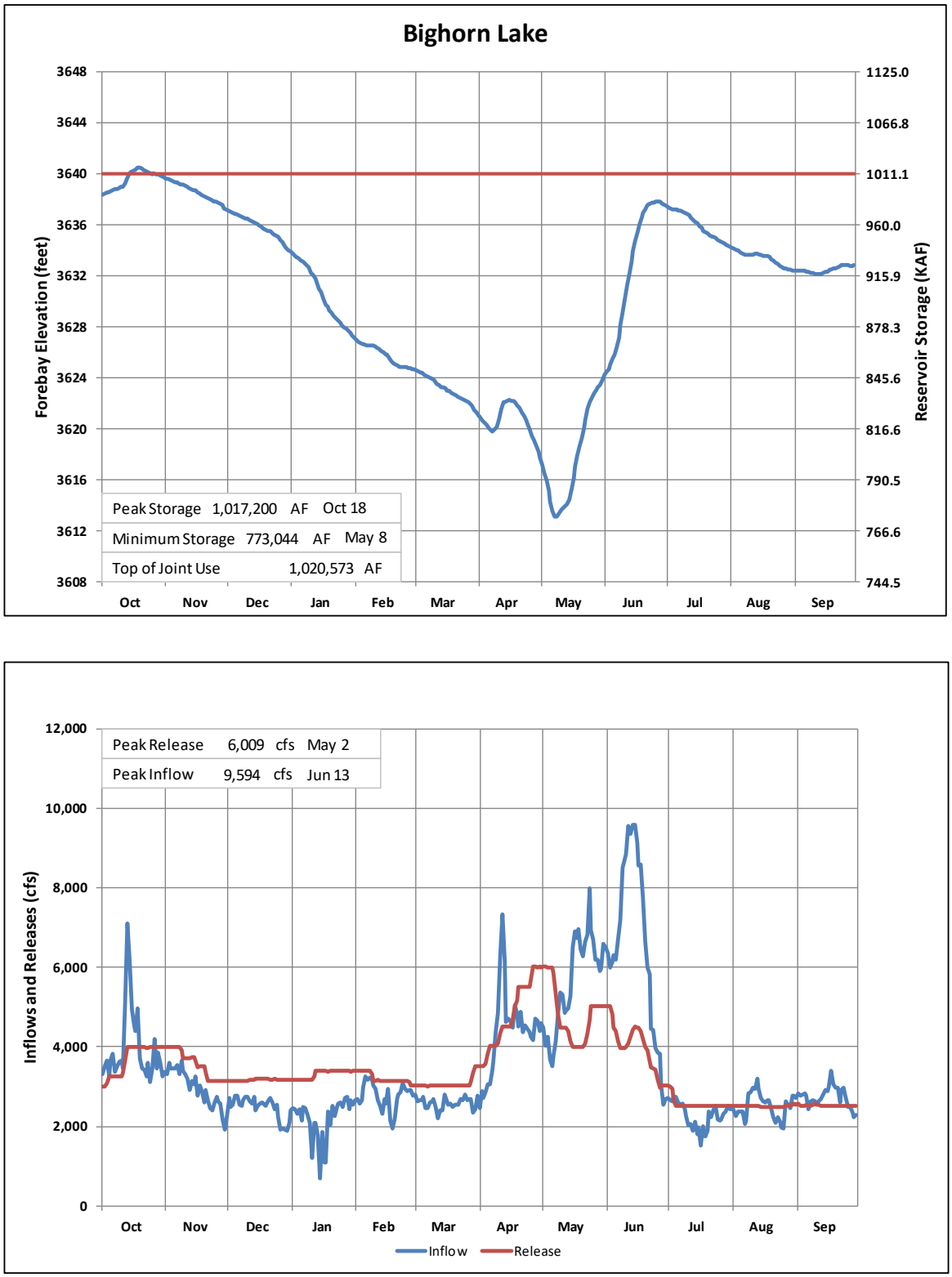


Figure WYG-13.—Bighorn Lake Storage, inflow and releases for WY2024.

Review of Water Year 2025 Operations for Missouri Basin Units Under the Responsibility of the Montana Area Office

Reclamation's Montana Area Office (MTAO) manages ten reservoirs located east of the Continental Divide in Montana. These facilities include:

- Clark Canyon Dam and Canyon Ferry Dam in the Missouri River headwaters of southwestern Montana
- Gibson Dam, along with the off-stream Pishkun Dikes and Willow Creek Dam on the Rocky Mountain Front
- Tiber Dam in central Montana
- Sherburne Dam and the Milk River Project facilities, including Fresno Dam and the Nelson Dikes, in northern Montana
- Yellowtail Dam near the Montana–Wyoming border

The first section below summarizes flood benefits realized during WY2025 for all facilities. The next sections are a review of the operations for WY2025 for each of the facilities. Each section provides a review of important operational decisions, overview of basin conditions, along with data for the corresponding reservoirs. Precipitation remains one of the primary drivers of operational decisions. Precipitation and SWE data pertinent to each of the facilities are also included in each section.

Flood Benefits

Flood damage is prevented by storing water that would have contributed to downstream flooding. The USACE evaluated reservoir regulation data and determined Canyon Ferry, Tiber and Yellowtail dams provided flood relief to the mainstem (downstream from Fort Peck Reservoir) and Fresno Dam provided local (upstream of Fort Peck Reservoir) flood relief to the Missouri River. Peak inflows regulated by reservoir operations are listed in table MTT-1. WY2025 mainstem and local flood benefits were estimated at $5,362,000 and are listed in table MTT-2. Figure MTG-1 shows annual flood benefits for the past 30 years.

Table MTT-1.—Regulated peak flows (cfs)

Reservoir	Date	Peak Inflow	River Discharge
Canyon Ferry Lake	05/14/25	13,290	4,290
Lake Elwell	05/07/25	1,939	416
Fresno Reservoir	02/26/25	3,054	39
Bighorn Lake	05/14/25	6,987	2,518

Table MTT-2.—Flood benefits (thousands of dollars)

Reservoir	Local	Mainstem	WY25 Total	Total Since 1950[3]
Clark Canyon Reservoir	0	0	0	68,877
Canyon Ferry Lake	0	2,959	2,959	989,331
Gibson Reservoir[1]	0	0	0	17,900
Lake Elwell	0	893	893	433,365
Lake Sherburne[2]	0	0	0	33,980
Fresno Reservoir	284	0	284	67,413
Bighorn Lake	0	1,226	1,226	631,169
Total	284	5,078	5,362	2,242,035

[1] No space allocated to flood control, but some flood protection provided through other purposes.
[2] Includes USACE estimated flood damages.
[3] Indexed to present value.

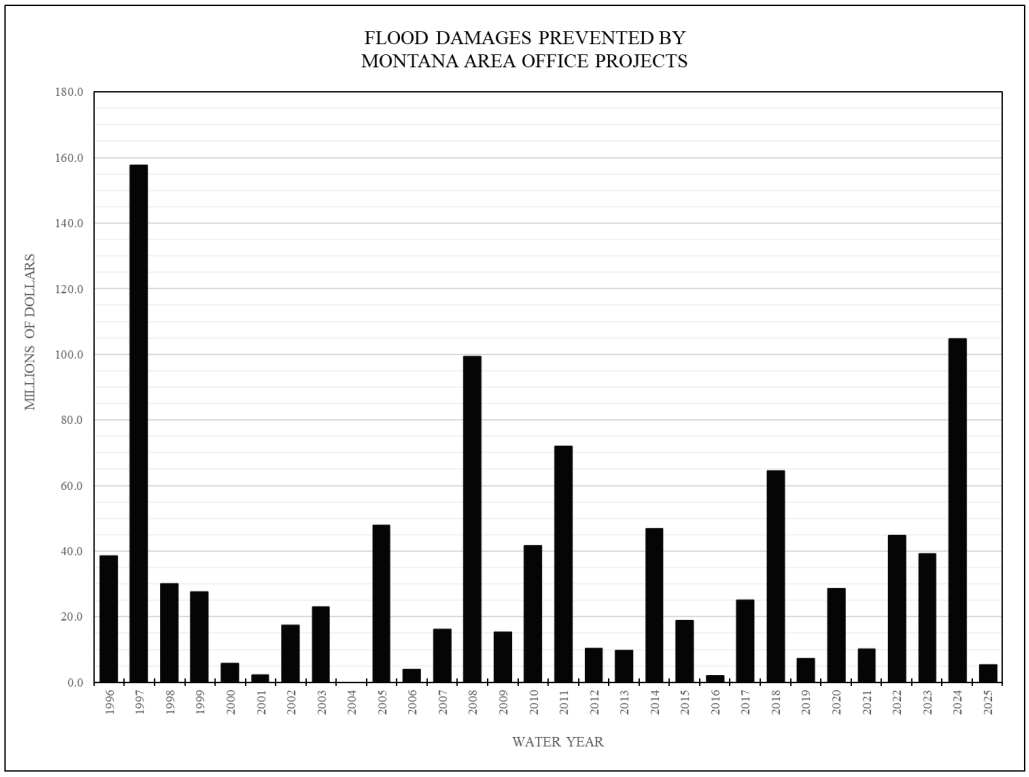


Figure MTG-1.—Flood benefits since 1950, indexed to current value.

Unit Operational Summaries for Water Year 2025

Clark Canyon Reservoir

Clark Canyon Reservoir is located on the Beaverhead River approximately 20 miles upstream of Dillon, MT. The reservoir is the storage facility for the East Bench Irrigation Unit. Flood control, recreation, and fish and wildlife are among the other functions served by the reservoir.

Figure MTG-2.—Aerial view of Clark Canyon Reservoir.

Summary of WY2025 Operations
Clark Canyon Reservoir started off WY2025 with above average storage. Dry winter and spring conditions led to inflows decreasing sooner than forecasted which led to Clark Canyon Reservoir not being filled. Storage in Clark Canyon Reservoir ended below average due to full irrigation allotments and dry conditions experienced during WY2025.

October through December
WY2025 started with a winter release rate of 50 cfs, which was set by the East Bench Unit Joint Board (Joint Board) with concurrence by Reclamation. The Joint Board consists of three representatives from the East Bench Irrigation District (EBID) and three representatives from Clark Canyon Water Supply Company (CCWSC). Drought conditions did exist in the Red Rock and the Beaverhead basins going into WY2025. Storage carryover going into October was high, near 122 percent of average or 94,900 AF. Inflows averaged 215 cfs during October through December. Although inflow was below average, storage in Clark Canyon Reservoir increased as it normally does during the winter. Precipitation was below average October through December. See tables MTT-3 through 6 for specific data related to Clark Canyon Reservoir inflows, releases, and storage content. Releases from Clark Canyon Reservoir were maintained at 50 cfs.

January through March
In January, Reclamation begins to forecast the April through July runoff volume based on snowpack measurements and other basin parameters. The January 1 forecasted runoff was 58 percent of average, see table MTT-8 for monthly forecasted runoff volumes. January exhibited near normal temperature and below normal precipitation the Beaverhead River Basin. Releases were maintained at 50 cfs in January.

Conditions were wetter than average in February and drier than average in March. At the end of March, the snowpack was around 93 percent of normal. Drought conditions in the Beaverhead and Red Rock Basins developed through the winter. Drought conditions were abnormally dry to moderate by the end of March according to the Montana drought monitor map (figure MTG-3).

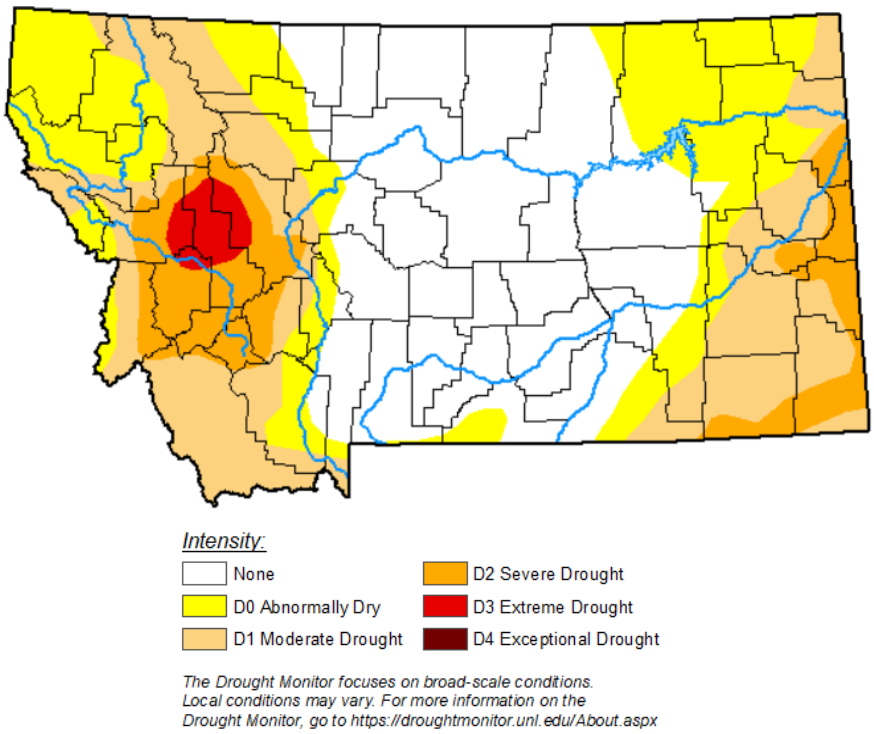


Figure MTG-3.—Montana Drought Monitor Map March 25, 2025.

The Joint Board met in early March 2025 to discuss the water supply outlook for the 2025 irrigation season. The water supply forecasts projected full allotments. The Joint Board reviewed and discussed the forecasts, operational plans and set the irrigation water supply at full allotments.

April through July

On April 1, the Beaverhead River Basin SWE was 93 percent of median. The April 1 forecasted runoff volume into Clark Canyon Reservoir was 52,000 AF, or 66 percent average. Releases to the Beaverhead River were maintained near 50 cfs going into April to fill the reservoir.

On May 1, Reclamation's May through July forecasted inflow volume decreased to 39 percent of average. May and June historically receive the most rainfall, which augments the snowmelt runoff volume. Unfortunately, precipitation was low in May and June and by the end of June, Southwestern Montana drought status designation was moderate. The reservoir continued to fill

until mid-to-late May before irrigation started. Release changes from Clark Canyon Dam during May and June were based upon irrigation demands. The actual April through July runoff volume into Clark Canyon Reservoir was 36,300 AF, 46 percent of average.

Lima Reservoir is a private irrigation facility located upstream of Clark Canyon Reservoir on the Red Rock River. The drainage area above Lima Reservoir accounts for about 25 percent of the total drainage area above Clark Canyon Reservoir. Lima Reservoir filled in late May and spilled the additional runoff into June which was captured in Clark Canyon Reservoir.

August through September
Releases for irrigation were continued during August and into September. Inflows averaged near 160 cfs and 175 cfs during the two months, therefore storage decreased since inflows were lower than releases. The Joint Board met in early September to discuss winter release rates and end of season shut down schedules. Releases from Clark Canyon Reservoir were stepped down from 300 cfs on September 24 to a winter release rate of 35 cfs by September 30. The Joint Board with Montana Fish Wildlife and Parks, and Reclamation also agreed to store water over the winter for potential spring flushing and habitat maintenance flows.

Most of the storage water released from Clark Canyon Reservoir during WY2025 was released from May through September to meet downstream irrigation demands. Storage in Clark Canyon Reservoir ended year the year at 53,626 AF, 69 percent of average.

Important Events – WY2025

April 14, 2025: East Bench Joint Board set full irrigation allotments.

May 5, 2025: Releases from Clark Canyon Reservoir were increased for irrigation for the first time in WY2025.

September 30, 2025: Releases for irrigation were done for the season and were set at the 35 cfs winer release rate.

WY2025 Data for Clark Canyon Reservoir

Table MTT-3.—Reservoir allocations for Clark Canyon Reservoir*

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	5,470.60	1,115	1,115
Top of active conservation	5,535.70	125,016	123,901
Top of joint use	5,546.10	174,300	49,284
Top of exclusive flood control	5,560.40	251,436	77,136

* 2016 reservoir survey and revised area-capacity table was implemented on October 1, 2019.

Table MTT-4.—Storage and elevation data for Clark Canyon Reservoir

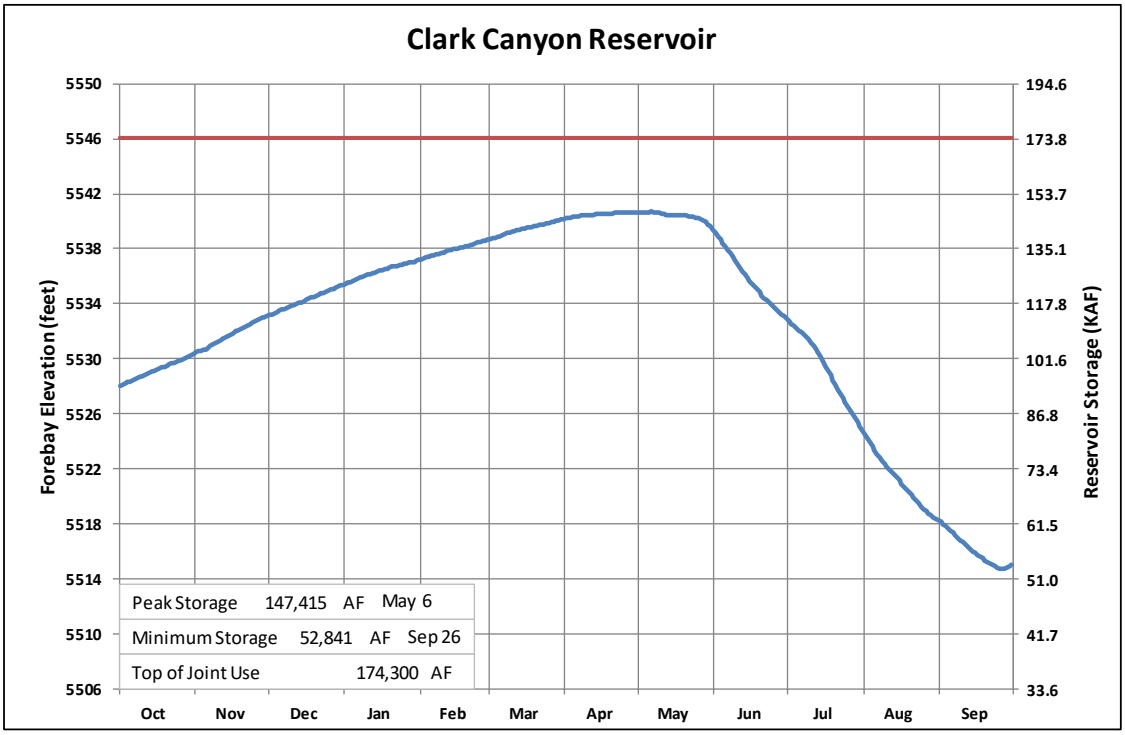
Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	5,527.96	93,855	10/1/2024
End of year	5,515.07	53,626	9/30/2025
Annual low	5,514.76	52,841	9/26/2025
Annual high	5,540.69	147,415	5/6/2025
Historic high	5,564.70	283,073	6/25/1984

Table MTT-5.—Inflow and discharge data for Clark Canyon Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	125,759	10/1/2024-9/30/2025	165,988	10/1/2024-9/30/2025
Daily peak (cfs)	365	6/17/2025	849	7/17/2025
Daily minimum (cfs)	10	5/10/2025	50	Winter release
Peak spill (cfs)			0	N/A
Total spill (AF)			0	N/A

Table MTT-6.—WY2025 monthly inflow, outflow, and storage for Clark Canyon Reservoir

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	12.2	69	3.1	36	103.0	118
November	14.1	81	2.9	37	114.1	117
December	12.7	85	3.0	39	123.7	117
January	10.9	84	3.1	46	131.5	116
February	9.4	79	2.8	47	138.1	116
March	10.1	69	3.1	46	145.1	114
April	5.2	34	3.1	36	147.2	110
May	7.0	42	12.8	58	141.4	110
June	11.7	44	39.8	126	113.3	94
July	12.4	59	43.0	98	82.7	87
August	9.8	65	30.3	96	62.2	80
September	10.4	69	18.9	110	53.6	69
Annual	125.8	63	166.0	84		
April–July	36.3	46				



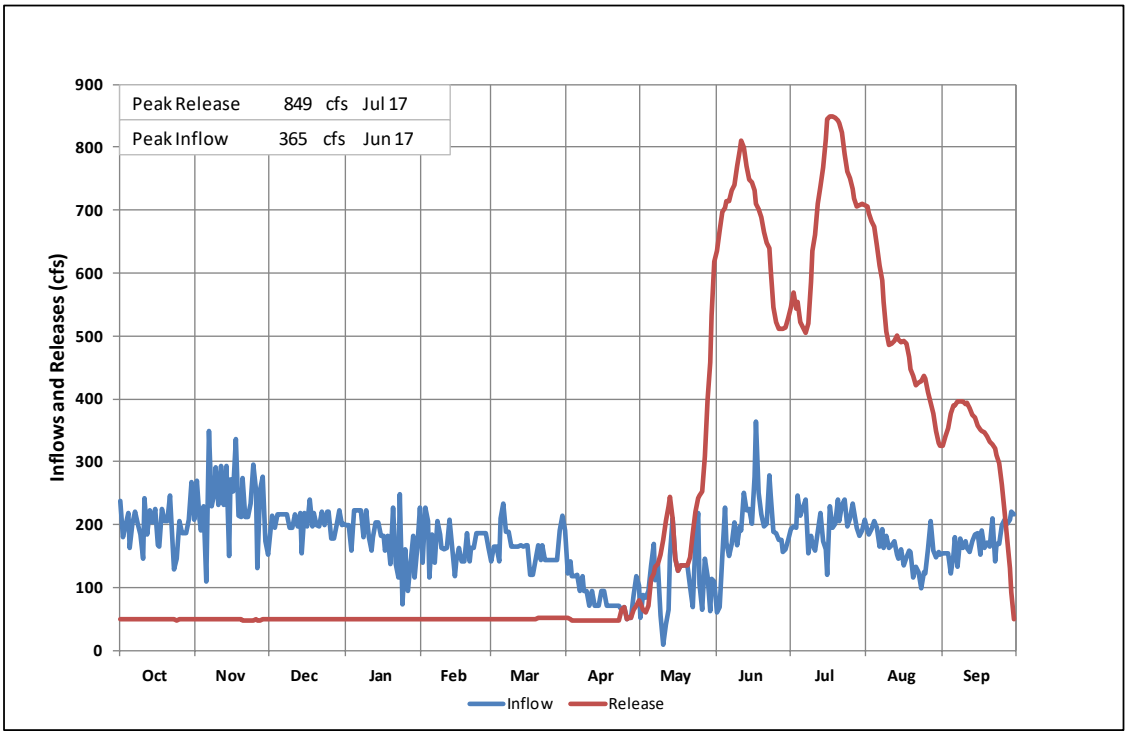


Figure MTG-4.—WY2025 hydrologic data for Clark Canyon Reservoir.

Precipitation for Beaverhead River Basin

Precipitation data comes from an online weather database, PRISM Group at Oregon State University. PRISM outputs the monthly observed and 30-year average precipitation for selected coordinate points. Grid point elevations delineated mountain and valley regions within the watershed. The valley/mountain elevation boundary was set at 7000 ft to include the watershed's lowest elevation SNOTEL station, Lakeview Ridge at 7400 ft.

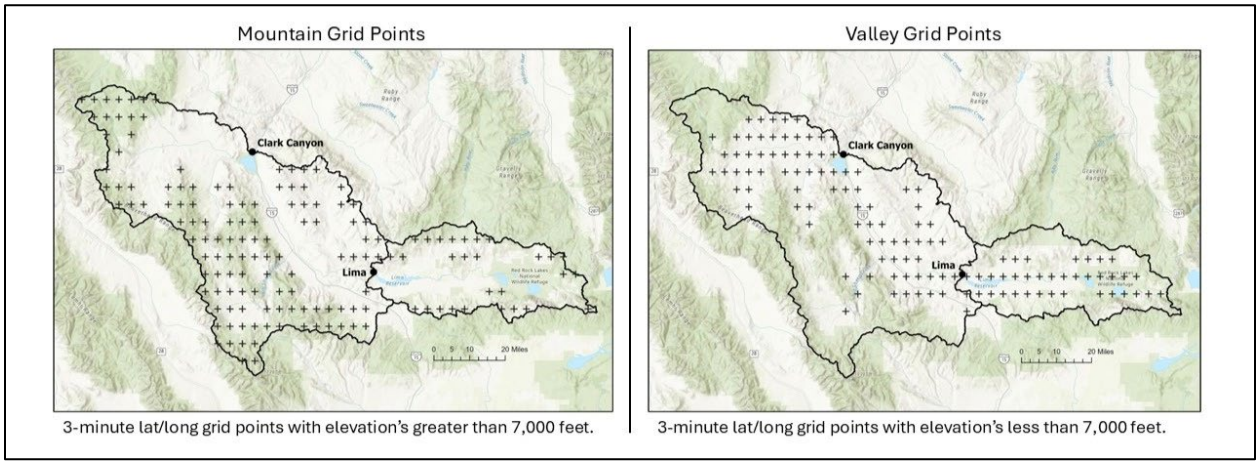


Figure MTG-5.—Grid spacing for mountain and valley precipitation data for Beaverhead River Basin.

Table MTT-7.—WY2025 monthly precipitation for Beaverhead River Basin

Beaverhead - Mountain	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.69		1.51		1.86		1.66		1.51		1.73		2.07		2.61		2.43		1.05		1.02		1.27	
Actual (in) and % of average	0.62	37	1.76	117	1.45	78	0.99	60	1.98	131	1.61	93	1.33	64	2.30	88	1.21	50	0.64	61	2.06	202	0.62	49
Year-to-date (in) and % of average	0.62	37	2.38	74	3.83	76	4.83	72	6.81	83	8.42	85	9.76	81	12.05	82	13.26	78	13.90	77	15.97	83	16.59	81

Beaverhead - Valley	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.71		1.59		2.00		1.81		1.61		1.82		2.11		2.60		2.48		1.09		1.05		1.29	
Actual (in) and % of average	0.69	40	1.90	119	1.54	77	1.10	61	2.12	131	1.80	99	1.45	69	2.36	91	1.23	49	0.63	58	2.15	204	0.61	47
Year-to-date (in) and % of average	0.69	40	2.59	78	4.13	78	5.23	73	7.35	84	9.14	87	10.59	84	12.95	85	14.18	80	14.81	79	16.96	85	17.58	83

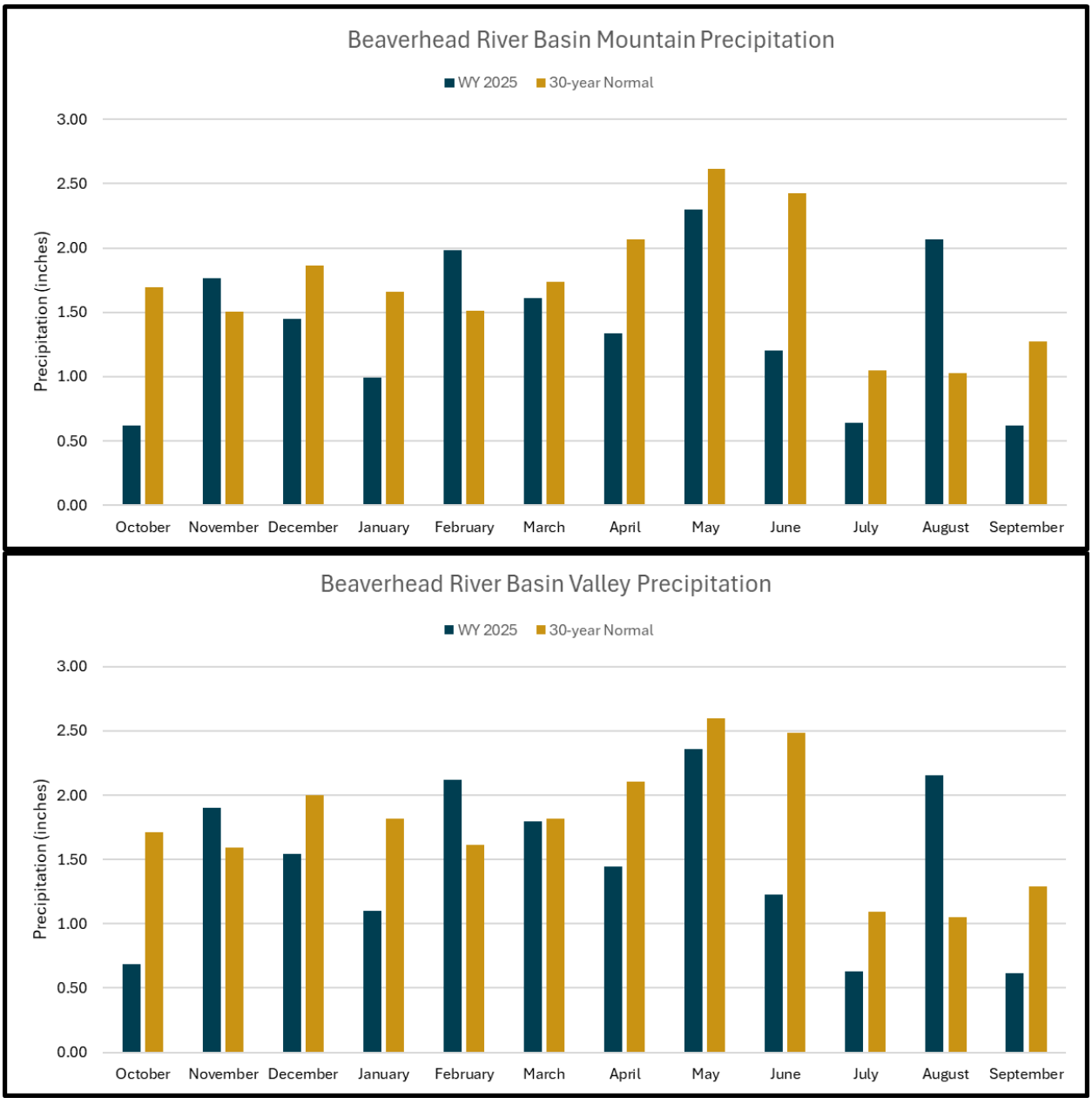


Figure MTG-6.—WY2025 monthly precipitation in the valley and mountains for Beaverhead River Basin.

Snowpack and Forecasts for Clark Canyon Reservoir

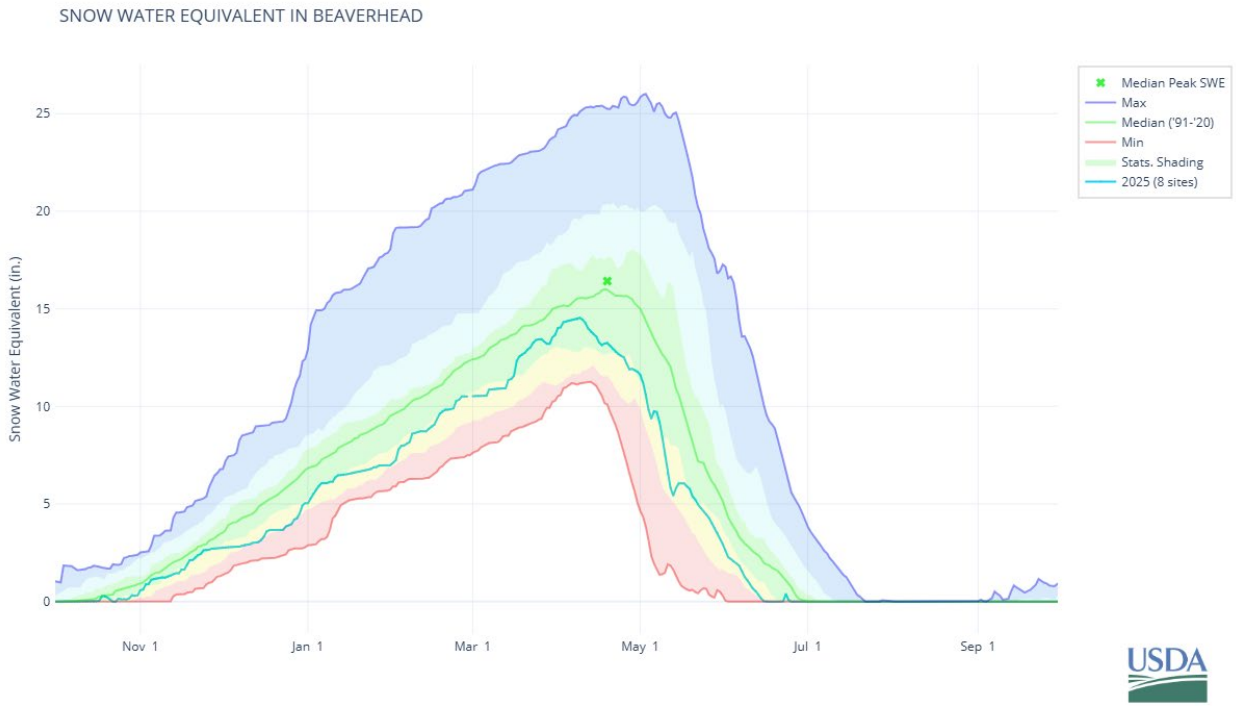


Figure MTG-7.—NRCS reported snowpack in Beaverhead River Basin.

Table MTT-8.—2025 Clark Canyon Reservoir April–July inflow forecasts

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[1]	June 1[2]	July 1
Percent of median SWE	74	74	85	93	77	56	-
Forecast, KAF	46	48	50	52	25	19	-
Forecast, percent of average	58	61	63	66	39	41	-
Observed April–July inflow	-	-	-	-	-	-	36
Percent of April 1 forecast	-	-	-	-	-	-	46

[1] Runoff forecast for May–July
[2] Runoff forecast for June–July

Canyon Ferry Lake and Powerplant

Canyon Ferry Lake, formed by Canyon Ferry Dam, is located on the Missouri River near Helena, MT. Canyon Ferry's storage is operated for power generation and irrigation; however, flood control, recreation, and fish and wildlife are among the other functions served by the reservoir. The main irrigation projects include the Crow Creek Unit, the Helena Valley Unit, and replacement storage for the East Bench Unit. A small amount of municipal water is also furnished to the city of Helena, MT, through facilities for the Helena Valley Unit.

Figure MTG-8.—Canyon Ferry Dam and Powerplant

Summary of WY2025 Operations

Canyon Ferry Reservoir started off WY2025 with below average storage. Dry conditions during runoff led to inflows decreasing sooner than forecasted which led to Canyon Ferry Reservoir not filling to full pool. Storage in Canyon Ferry Reservoir ended below average due to the dry conditions experienced during WY2025. See tables MTT-9 through 12 for specific data related to Canyon Ferry Reservoir inflows, releases, and storage content.

October through December

WY2025 started out with very warm temperatures and below normal precipitation. Overall, it was warmer and drier than normal for October through December. The warm temperatures and below normal precipitation patterns in the Missouri Headwater Basin resulted in a below normal snowpack. October through December inflows were 86 percent of average. The reservoir storage content stayed fairly steady but below average through the end of December. Releases below Holter Dam were held at 3,000 cfs.

At the end of December, releases were increased by 300 cfs in coordination with NorthWestern Energy as per the operational agreement between Reclamation and NorthWestern Energy. NorthWestern Energy can supplement river flows and use up to 47,500 AF of water in Canyon Ferry Reservoir during November through February.

On December 31, the U.S. Drought Monitor Map categorized the drought conditions above Canyon Ferry Reservoir as moderate to severe.

January through March

In January, Reclamation begins to forecast the April through July runoff volume based on snow content and other basin parameters. The January 1 forecasted runoff was 75 percent of average, see table MTT-14 for monthly forecasted runoff volumes. The lower than average forecast was due to the lower than normal snowpack in the basins above Canyon Ferry Reservoir, which was 82 percent of median on January 1, 2025. On January 16, releases increased to 4,850 cfs with NorthWestern Energy's call for additional water. The February 1 forecasted runoff increased to 81 percent of average. Releases continued to fluctuate in January based on NorthWestern's calls for water.

NorthWestern Energy continued to call for water into February until their storage account ran out, then flows were decreased to 3,150 cfs. The March 1 runoff forecast increased to 91 percent of average based on a wetter than average February. Releases were maintained at 3,150 cfs for most of March but increased to 3,600 cfs at the end of the month based on an increase in inflows.

April through July

On April 1, the April through July inflow forecast decreased to 86 percent of average due to a slightly lower snowpack compared to median (96 percent of median on April 1). The plan was to keep filling Canyon Ferry Reservoir through the next few months until it was full at the end of June. Diversions for Helena Valley Irrigation District (HVID) to the Helena Valley Reservoir began April 16. Snowpack peaked a little earlier than normal on April 6, 2025. Once the snowpack started melting, inflows increased into Canyon Ferry Reservoir. Overall, monthly average inflows averaged 4,630 cfs. Releases averaged 3,830 cfs for Aril which resulted in a reservoir elevation of 3785.0 ft at the end of the month.

On May 1, Reclamation's May through July forecasted inflow volume decreased to 80 percent of average. May and June are historically the most productive months of the year for rainfall to augment the snowmelt runoff. May rainfall was near average, but June was a very dry month. The weather was warm causing the snowpack to melt and inflows to increase. Inflows rose from 5,000 cfs to above 13,000 cfs during the month of May. Releases were increased several times during the month from 4,100 cfs to 5,500 cfs. The end of the month elevation was near 3791.5 ft. Inflows during May were 94 percent of average.

At the start of June, the snowmelt started to decline rapidly. In response, releases were decreased to 4,100 cfs. By June 18, the snowpack in the Upper Missouri Basin had completely melted at the SNOTEL sites. By mid-June inflows matched releases, and the reservoir peaked in storage on

June 18. The reservoir peak elevation was 3793.82 ft (3.18 ft short of full pool). Full pool is elevation 3797.0 ft. As inflows declined during the second half of the month, releases also decreased to 3,625 cfs below Holter Dam.

Towards the end of June and into the beginning of July, inflows continued to decline and were near 1,350 cfs by the middle of the month. Releases from Canyon Ferry Reservoir were decreased to 3,525 cfs and again to 3,300 cfs at the end of the month to conserve storage. Precipitation was below normal and temperatures were above normal for the month of July. The April through July runoff into Canyon Ferry Reservoir during WY2025 was 67 percent of average, totaling 1,224,482 AF.

August through September
Releases from Canyon Ferry Reservoir were decreased in August to 3,300 cfs. Storage in Canyon Ferry Reservoir continued to decline, as normal, throughout August. Releases from Canyon Ferry Reservoir were decreased during September to 3,250 cfs and again to 2,900 cfs at the end of the month to target 3,000 cfs below Holter Dam. HVID diversions continued to be adjusted to meet irrigation demands. Temperatures were above normal during August and September, while precipitation was a mix of above and below average in the basin. Canyon Ferry Reservoir ended the water year at elevation 3782.60 ft, 91 percent of average.

Important Events WY2025
January 2025 through February 2025: In coordination with NorthWestern Energy, base flow releases were increased when the weather was colder. The volume delivered was in accordance with the operation agreement which is 47,500 AF of water.

April 16, 2025: Helena Valley Irrigation District started pumping water to the Helena Valley Reservoir. Diversions from Canyon Ferry Reservoir were adjusted throughout the season to meet irrigation demands from the Helena Valley Reservoir.

October 1, 2025: HVID discontinued diversions to Helena Valley Reservoir.

WY2025 Data for Canyon Ferry Lake

Table MTT-9.—Reservoir allocations for Canyon Ferry Lake*

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	3,728.00	388,641	388,641
Top of active conservation	3,770.00	1,087,216	698,575
Top of joint use	3,797.00	1,886,950	799,734
Top of exclusive flood control	3,800.00	1,993,036	106,086

* 2016 reservoir survey and revised area-capacity table was implemented on October 1, 2020.

Table MTT-10.—Storage and elevation data for Canyon Ferry Lake

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	3,784.67	1,485,222	10/1/2024
End of year	3,782.60	1,422,598	9/30/2025
Annual low	3,781.31	1,384,487	2/17/2025
Annual high	3,793.82	1,777,193	6/18/2025
Historic high	3,800.00	2,050,900	6/23/1964

Table MTT-11.—Inflow and discharge data for Canyon Ferry Lake

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	2,595,363	10/1/2024-9/30/2025	2,657,987	10/1/2024-9/30/2025
Daily peak (cfs)	13,290	5/14/2025	5,862	6/3/2025
Daily minimum (cfs)	1,136	8/23/2025	3,019	10/21/2024
Peak spill (cfs)			1,353	6/17/2025
Total spill (AF)			5,365	10/1/2024-9/30/2025

Table MTT-12.—WY2025 monthly inflow, outflow, and storage for Canyon Ferry Lake

Month	Inflow, KAF	Percent of 30-yr avg	Outflow pumped to HVID, KAF	Percent of 30-yr avg	Outflow to river, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	172.1	77	0.1	38	201.7	89	1,455.7	93
November	196.3	82	0.0	0	189.0	83	1,463.0	93
December	205.8	99	0.0	0	193.6	77	1,475.1	96
January	170.5	80	0.0	0	230.5	90	1,415.2	95
February	172.8	84	0.0	0	185.5	76	1,402.4	97
March	245.8	96	0.0	0	195.0	70	1,453.3	102
April	275.4	88	5.4	74	233.3	77	1,495.3	104
May	505.0	94	13.4	82	300.2	80	1,700.2	106
June	331.3	47	19.3	105	269.4	58	1,762.0	95
July	112.8	41	20.0	97	238.0	67	1,636.8	93
August	95.6	71	20.8	101	223.9	87	1,508.6	92
September	112.0	72	14.2	118	197.9	86	1,422.6	91
Annual	2,595.4	75	93.3	97	2,658.0	77		
April–July	1,224.5	67						

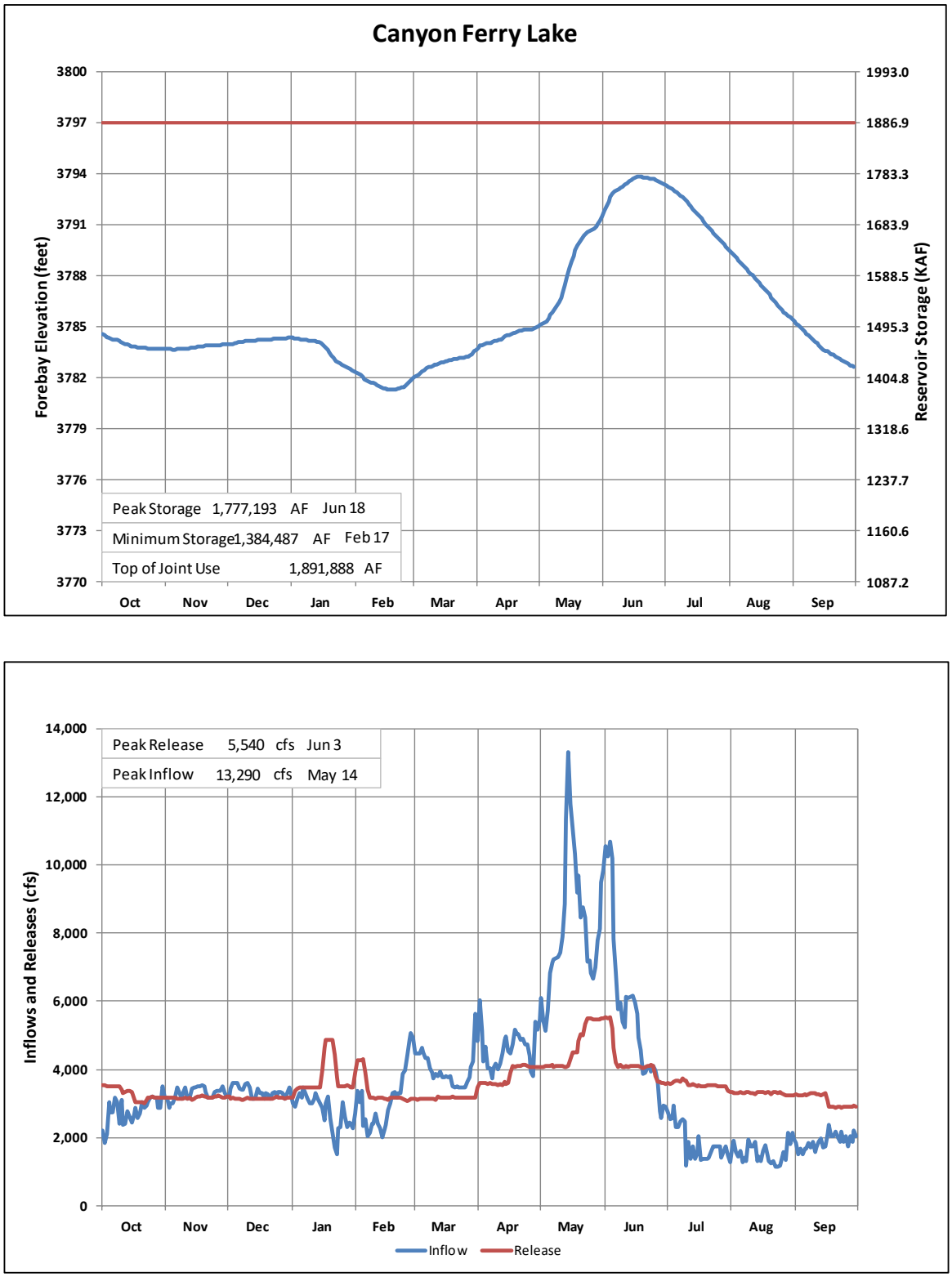


Figure MTG-9.—WY2025 hydrologic data for Canyon Ferry Lake.

Precipitation for Upper Missouri River Basin

Precipitation data comes from an online weather database, https://prism.oregonstate.edu/explorer/bulk.php. PRISM outputs the monthly observed and 30-year average precipitation for selected coordinate points. Grid point elevations delineated mountain and valley regions within the watershed. The valley/mountain elevation boundary was set at 6000 ft to include the watershed's lowest elevation SNOTEL station, Moose Creek at 6200 ft.

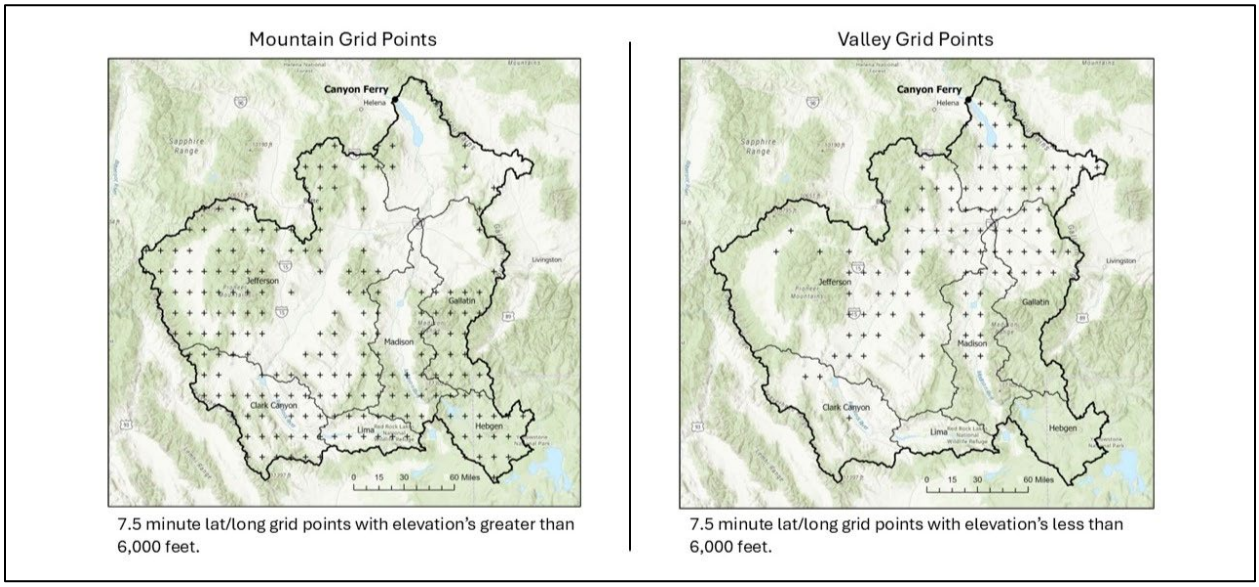


Figure MTG-10.—Grid spacing for mountain and valley precipitation data for Upper Missouri River Basin.

Table MTT-13.—WY2025 monthly precipitation for Upper Missouri River Basin

Upper Missouri - Mountain	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.87		1.86		2.09		1.92		1.72		1.99		2.39		2.88		2.84		1.36		1.27		1.47	
Actual (in) and % of average	0.86	46	1.88	101	1.66	80	1.51	79	2.66	154	2.04	103	1.99	83	2.61	91	1.24	44	0.78	58	1.96	155	0.88	60
Year-to-date (in) and % of average	0.86	46	2.74	73	4.41	76	5.91	76	8.57	91	10.61	93	12.61	91	15.22	91	16.46	84	17.24	82	19.21	87	20.08	85

Upper Missouri - Valley	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.75		1.42		1.39		1.25		1.22		1.56		2.36		2.93		3.09		1.50		1.37		1.49	
Actual (in) and % of average	0.88	50	1.68	118	1.06	76	1.62	129	1.97	161	1.56	100	2.39	101	2.98	102	1.32	43	0.97	64	1.71	125	1.08	73
Year-to-date (in) and % of average	0.88	50	2.56	81	3.62	79	5.24	90	7.21	102	8.77	102	11.16	102	14.14	102	15.46	91	16.43	89	18.14	91	19.22	90

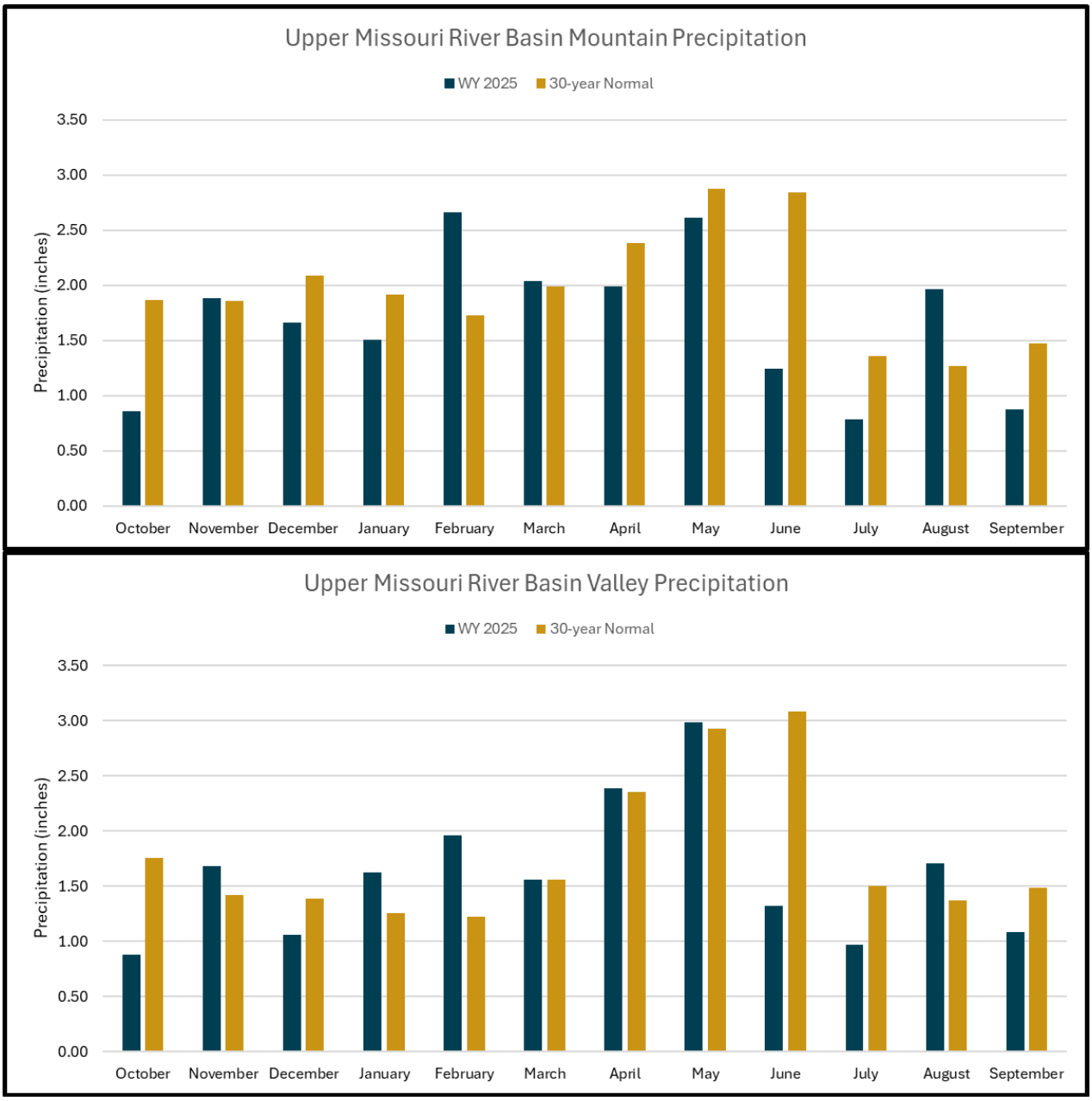


Figure MTG-11.—WY2025 monthly precipitation in the valley and mountains for Upper Missouri River Basin.

Snowpack and Forecasts for Canyon Ferry Lake

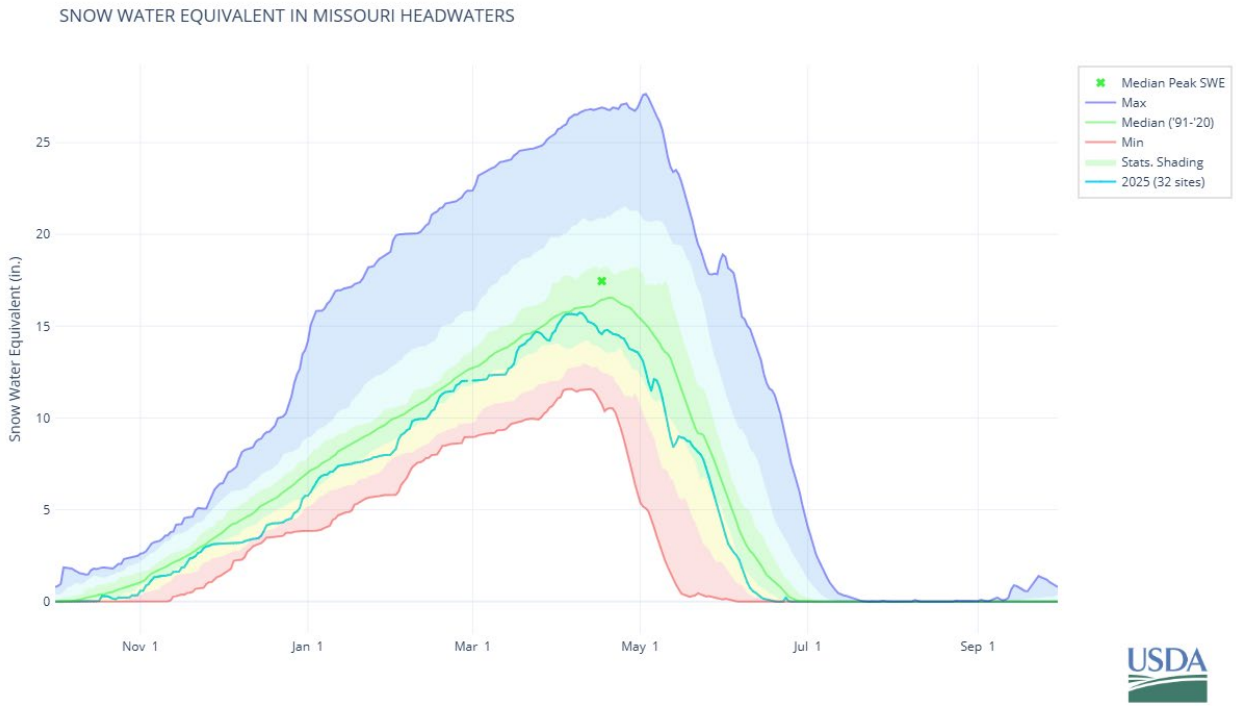


Figure MTG-12.—NRCS reported snowpack in Missouri Headwaters.

Table MTT-14.—2025 Canyon Ferry Lake April–July inflow forecasts

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[1]	June 1[2]	July 1
Percent of Median SWE	82	82	94	97	87	60	-
Forecast, KAF	1,370	1,480	1,666	1,585	1,211	607	-
Forecast, percent of average	75	81	91	86	80	62	-
Observed April–July inflow	-	-	-	-	-	-	1,225
Percent of April 1 forecast	-	-	-	-	-	-	67

[1] Runoff forecast for May–July
[2] Runoff forecast for June–July

Helena Valley Reservoir

Helena Valley Reservoir is a regulating off-stream reservoir for Helena Valley Unit, located west of Canyon Ferry Reservoir. It has a total capacity of 10,451 AF, which is used for irrigation and furnishing a supplemental municipal water supply to the city of Helena, MT.

Helena Valley Reservoir receives its entire water supply by pumping from Canyon Ferry Reservoir. Helena Valley Unit can irrigate about 14,100 acres of full-service land and 3,500 acres of supplemental service lands. Presently, HVID services about 13,867 full-service acres, including 5,200 acres previously irrigated by pumping from Helena Valley Reservoir or from other streams.

Figure MTG-13.—View of Helena Valley Reservoir and Dam.

Summary of WY2025 Operations

At the beginning of the water year, storage in Helena Valley Reservoir was approximately 2 ft below full pool. The reservoir slowly declines throughout the winter due to municipal demands and seepage. Therefore, the reservoir drafted another 8 ft by the middle of April. The operating criteria goals are to fill Helena Valley Reservoir by May 1 and maintain it nearly full through June. In response, diversions to the Helena Valley Unit from Canyon Ferry Reservoir started on April 16. Storage in Helena Valley Reservoir steadily increased with diversions from Canyon Ferry. Diversions were made as needed throughout the year to meet irrigation demands and refill the reservoir. All irrigation deliveries were discontinued for the 2025 season on October 1, 2025.

The reservoir provided an adequate water supply to satisfy all irrigation requirements for the Helena Valley Unit and supplement the city of Helena's municipal water supply. Statistical information pertaining to Helena Valley Reservoir is shown in tables MTT-15 through 18.

WY2025 Data for Helena Valley Reservoir

Table MTT-15.—Reservoir allocations for Helena Valley Reservoir*

Reservoir Allocations	Elevation (ft)	Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive storage	3,805.00	4,554	4,554
Top of active conservation storage	3,820.07	10,451	5,897

*Based on original area-capacity table.

Table MTT-16.—Storage and elevation data for Helena Valley Reservoir

Storage Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	3,818.40	9,608	10/01/2024
End of year	3,818.11	9,467	9/30/2025
Annual low	3,810.62	6,330	4/15/2025
Annual high	3,819.93	10,378	7/1/2025
Historic high	3,820.60	10,738	6/2/1975

Table MTT-17.—Inflow and discharge data for Helena Valley Reservoir

Inflow-Outflow Data	Annual (AF)
Pumped from Canyon Ferry Reservoir to Helena Valley Unit	93,256
Released from Helena Valley Reservoir for irrigation	71,906
Delivered to the City of Helena for municipal use	3,329

Table MTT-18.—WY2025 end of month elevation and storage data for Helena Valley Reservoir and total water pumped to Helena Valley Reservoir

Month	Forebay Elevation (ft)	Storage Content (KAF)	Pumped to Helena Valley (KAF)
October	3,817.17	9.0	0.1
November	3,815.94	8.5	0.0
December	3,814.66	7.9	0.0
January	3,813.35	7.4	0.0
February	3,812.25	6.9	0.0
March	3,811.19	6.5	0.0
April	3,818.36	9.6	5.4
May	3,817.51	9.2	13.4
June	3,819.77	10.3	19.3
July	3,813.73	7.5	20.0
August	3,819.17	10.0	20.8
September	3,818.11	9.5	14.2
Annual			93.3

Sun River Project

Storage for the Sun River Project is provided by Gibson, Willow Creek, and Pishkun Reservoirs, which are all single purpose irrigation structures. The project serves 95,000 acres for the Greenfields and Fort Shaw Irrigation Districts. A diversion dam is located on the Sun River about three miles below Gibson Reservoir to divert flows down the Pishkun Supply Canal to Pishkun Reservoir, or down the Willow Creek Feeder Canal to Willow Creek Reservoir. Releases are made from Pishkun Reservoir to supply Greenfields Irrigation District (GID). Releases from Willow Creek Reservoir reenter the Sun River where they can be diverted at the Fort Shaw Diversion Dam to supply Fort Shaw Irrigation District (FID).

Figure MTG-14.—Gibson Reservoir and Dam.

Gibson Reservoir

Summary of 2025 Operations

Gibson Reservoir is located on the Sun River west of Augusta, MT. Gibson Reservoir typically fills each year due to adequate inflows in most years. However, Gibson Reservoir did not fill during WY2025 due to low snowpack. As a result, the water supply for irrigation was about seventy percent of normal.

October through December

Gibson Reservoir began the new water year nearly empty as irrigation demand required all the storage during the previous water year. This is typical for Gibson Reservoir. Releases from Gibson Reservoir nearly matched inflows through the entire winter. Both remained fairly

constant. Releases went downstream and through the Willow Creek Feeder Canal to start refilling Willow Creek Reservoir. Approximately 50 cfs in October and 30 cfs in November and December of the 120 cfs released from Gibson Reservoir was diverted to the Willow Creek Feeder Canal. About mid-December, diversions to Willow Creek Reservoir were shutoff due to cold and freezing temperatures.

In addition to moving water to Willow Creek Reservoir, river releases below Sun River Diversion Dam help meet any downstream water demands while providing beneficial flows for the fall brown trout spawn. See tables MTT-19 through 22 for specific data related to Gibson Reservoir inflows, releases, and storage content.

Releases were maintained at 120 cfs over the Sun River Diversion Dam once diversions to Willow Creek Feeder Canal were shut off. October through December precipitation was below average and temperatures were above average in the Sun River basin.

January through March

In January, Reclamation begins to forecast the April through July runoff volume based on snowpack measurements and other basin parameters. The January 1 forecasted runoff was 79 percent of average or 315,000 AF. The snowpack in the Sun River basin was 64 percent of average at the beginning of January and decreased to about 60 percent of average at the beginning of February. The February 1 runoff forecast dropped to 69 percent of average. Inflows and releases during February averaged about 100 cfs. A snowstorm near the end of the month brought the SWE up to 77 percent of median conditions by March 1. The March 1, April through July forecast increased to 78 percent of average.

Inflows jumped up above 500 cfs right towards the end of March from additional precipitation. Gibson Reservoir storage filled 13 ft and was at elevation 4621.77 ft or 10,069 AF on March 31.

April through June

The April 1, April through July inflow forecast for Gibson Reservoir was 276,000 AF, 69 percent of average. April temperatures were above normal while precipitation was below normal. Snowpack peaked on April 4 at 74 percent of the normal peak. During the spring, water is moved to Willow Creek Reservoir to meet irrigation demands throughout the summer. See the next sections for more information on Willow Creek and Pishkun Reservoirs.

The May through July forecast for Gibson Reservoir was 195,000 AF or 54 percent of average. Diversions to Pishkun Reservoir via the Pishkun Supply Canal started mid-May prior to start of the irrigation season for GID. The snow melted rapidly and resulted in a peak inflow of 2,600 cfs on May 11. May runoff filled the reservoir 43 ft to elevation 4706.65 ft. The snow at the SNOTEL sites upstream of Gibson Reservoir melted on May 26. Depending on runoff conditions and reservoir levels, Gibson Reservoir’s spillway gates remain open until inflows and remaining snowpack indicate that the runoff is receding. Once runoff has peaked, the spillway gates are gradually closed to fill the reservoir another 12 ft to the top of the conservation pool at

elevation 4724.0 ft. Since the peak runoff was in early May, the spillway gates were closed on May 16 to allow the reservoir to fill. Releases were set near 1,150 cfs on May 14 and fluctuated throughout May and June to meet irrigation demands.

Gibson Reservoir elevation peaked at 4707.27 ft on June 2. This is the second year in a row that Gibson Reservoir did not fill. Low snowpack and below average precipitation during April through June contributed to the low inflows.

July through September
July temperatures and precipitation were above normal in the Sun River Basin. Irrigation requirements remained high, therefore Gibson Reservoir was drafting quickly. The observed April through July runoff totaled 212,667 AF, 53 percent of average. Releases from Gibson Reservoir continued to be adjusted to meet downstream senior water rights and minimum river flows while also diverting water to Pishkun Reservoir. Diversions to Pishkun Reservoir were discontinued on July 20 as Gibson Reservoir reached the minimum content near 5,500 AF.

Releases from Gibson Reservoir for the rest of July and all of August and September were set to pass inflows downstream. Therefore, Gibson Reservoir remained near the minimum content for the rest of the water year. Temperatures in August and September were above normal, but precipitation was below normal. By the end of September, the Montana drought monitor map showed the Sun River Basin was in severe to extreme drought conditions.

Pishkun Reservoir

Pishkun Reservoir, near Augusta, MT is an off-stream reservoir supplied through a canal which diverts water from the Sun River below Gibson Reservoir. Releases are made from Pishkun Reservoir to supply irrigation water to GID.

Figure MTG-15.—Aerial view of Pishkun Reservoir.

Summary of WY2025 Operations

The content in Pishkun Reservoir at the beginning of the WY2025 was 36,079 AF at elevation 4362.60 ft. Storage during the fall and winter decreased to 33,936 AF due to seepage and evaporation. Diversions from the Sun River started refilling the reservoir on May 13.

The reservoir reached near the top of active conservation pool at elevation 4370.0 ft in late May. Irrigation releases from Pishkun Reservoir began on May 15. Pishkun Reservoir releases from May through late July were for irrigation demands. GID delivered a reduced allotment of 1.0 AF per acre (full allotment is 2.0 AF per acre) to its water users in WY2025 due to drought conditions in the basin. Approximately 173,908 AF of water was released from Pishkun Reservoir from May 15 through July 24 to help meet irrigation demands. All diversions from the Sun River into Pishkun Reservoir were discontinued on July 24.

Additional hydrologic and statistical data pertaining to Pishkun Reservoir can be found in tables MTT 23 through 26.

Willow Creek Reservoir

Willow Creek Reservoir obtains its water supply from Willow Creek and the Sun River via the Willow Creek Feeder Canal. Releases from Willow Creek Reservoir enter the Sun River and can be diverted by FSID for irrigation at the Fort Shaw Diversion Dam, the Floweree Canal for Broken O Ranch, and other downstream senior water users.

Figure MTG-16.—View of Willow Creek Dam and reservoir.

Summary of WY2025 Operations

Willow Creek Reservoir began to refill during October through the Willow Creek Feeder canal. The diversions were discontinued mid-December once the weather was too cool to keep diverting water. Natural inflow into Willow Creek Reservoir also contributes to the overall inflow. Storage increased approximately 5,750 AF or 7 ft from October 1 through March 31.

From early-April through early-June, GID diverted water Willow Creek Reservoir, and it filled another 3.4 ft. Willow Creek reservoir reached elevation 4133.89 (full pool is 4140.03 ft) on June 7. On June 8, releases from Willow Creek Reservoir were started for meeting downstream demands. These releases continued to fluctuate throughout the summer until releases ceased on August 26. No water was diverted through the Willow Creek Feeder Canal during the rest of WY2025 due to low inflows to Gibson Reservoir. Willow Creek Reservoir ended the water year at storage 4,176 AF or 4112.91 ft. This was the lowest end of year storage other than 2019 when the reservoir was drawing down for gate maintenance.

Additional hydrologic and statistical data pertaining to Willow Creek Reservoir can be found in tables MTT 27 through 30.

Important Events – WY2025

April 9, 2025: Began diversion to Willow Creek Feeder Canal.

May 12, 2025: Diversions to the Pishkun Supply Canal were initiated.

June 8, 2025: Releases from Willow Creek Reservoir were initiated to supplement the Sun River.

July 24, 2025: Releases from Pishkun Reservoir for irrigation deliveries were discontinued for the season.

WY2025 Data for Gibson Reservoir

Table MTT-19.—Reservoir allocations for Gibson Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	4,557.50	0	0
Top of active conservation	4,724.00	98,688	98,688

* 2009 reservoir survey and revised area-capacity table were implemented on January 1, 2013.

Table MTT-20.—Storage and elevation data for Gibson Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	4,613.74	6,742	10/1/2024
End of year	4,610.95	5,744	9/30/2025
Annual low	4,607.10	4,644	2/19/2025
Annual high	4,707.27	77,484	6/2/2025
Historic high	4,732.23	116,400	6/8/1964

Table MTT-21.—Inflow and discharge data for Gibson Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	275,486	10/1/2024–9/30/2025	276,484	10/1/2024–9/30/2025
Daily peak (cfs)	2,598	5/11/2025	1,789	6/1/2025
Daily minimum (cfs)	51	1/20/2025	98	2/22/2025

Table MTT-22.—WY2025 monthly inflow, outflow, and storage data for Gibson Reservoir

Month	Inflow, KAF	Percent of 30-yr avg	Outflow to canal, KAF	Percent of 30-yr avg	Outflow to river, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	8.2	67	4.4	131	7.4	110	5.6	36
November	6.9	51	3.0	90	7.2	96	4.9	25
December	7.2	65	1.1	238	7.4	78	5.3	24
January	5.9	61	0.0	0	7.0	80	5.0	20
February	5.5	61	0.0	0	6.3	77	5.0	19
March	11.3	81	0.0	0	7.4	77	10.1	32
April	33.3	80	3.7	46	8.0	48	33.4	66
May	105.5	70	47.9	105	15.3	20	76.7	85
June	54.7	35	78.4	121	11.2	12	44.4	48
July	19.2	37	50.3	61	10.7	62	5.6	13
August	10.2	50	0.0	0	11.3	115	5.6	36
September	7.6	58	0.0	0	8.6	101	5.7	47
Annual	275.5	55	188.8	73	107.6	39		
April–July	212.7	53						

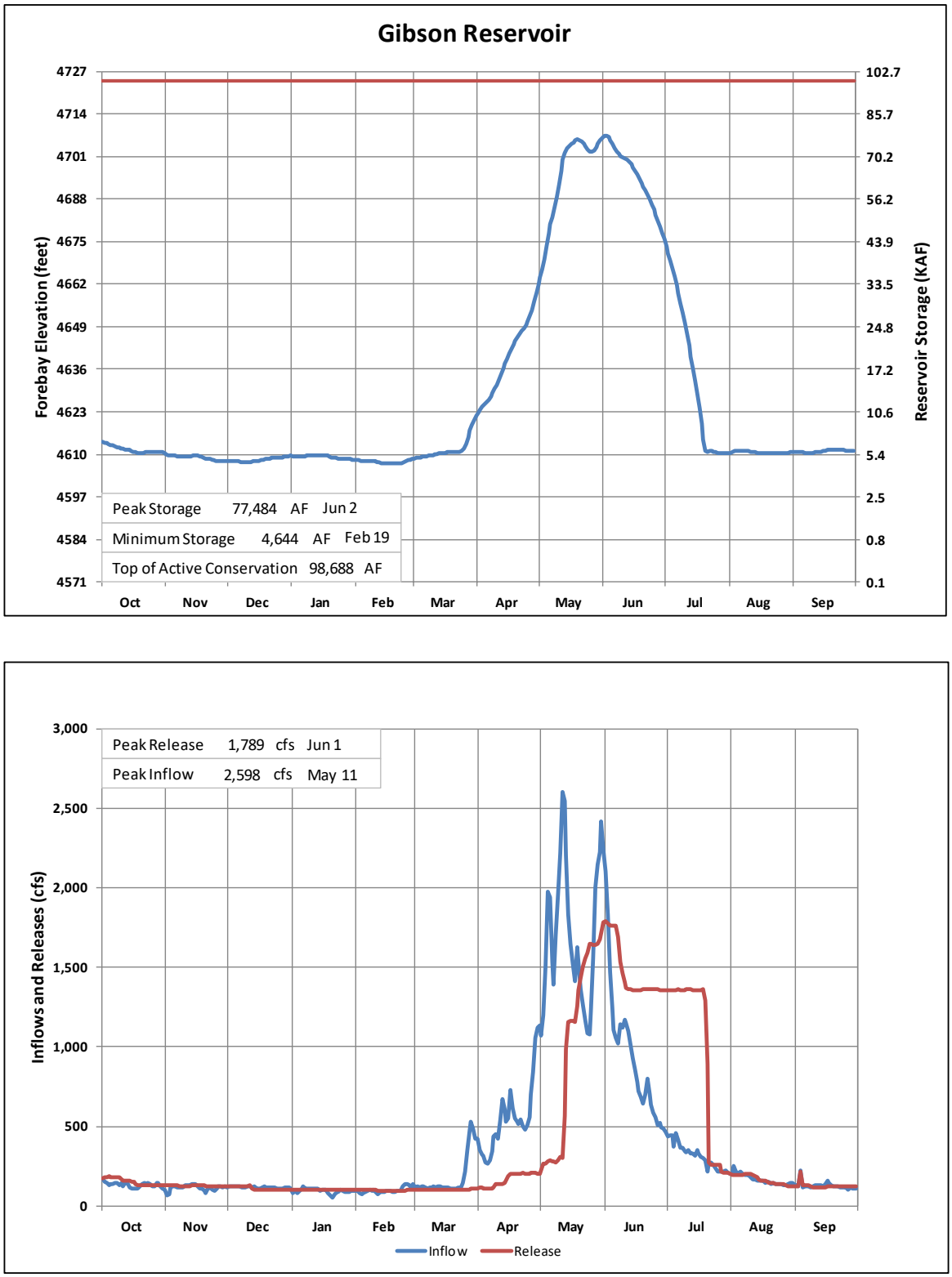


Figure MTG-17.—WY2025 hydrologic data for Gibson Reservoir.

WY2025 Data for Pishkun Reservoir

Table MTT-23.—Reservoir allocations for Pishkun Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
top of inactive and dead	4,342.00	16,008	16,008
top of active conservation	4,370.00	46,694	30,686

* 2002 reservoir survey and revised area-capacity table were implemented on October 1, 2005.

Table MTT-24.—Storage and elevation data for Pishkun Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	4,362.60	36,079	10/1/2024
End of year	4,356.80	29,022	9/30/2025
Annual low	4,356.80	29,022	9/30/2025
Annual high	4,366.66	41,749	5/26/2025
Historic high	4,371.40	48,950	7/4/1953

Table MTT-25.—Inflow and discharge data for Pishkun Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	166,903	10/1/2024-9/30-2025	173,909	10/1/2024-9/30-2025
Daily peak (cfs)	1,381	6/23/2025	1,647	7/13/2025

Table MTT-26.—WY2025 monthly inflow, outflow, and storage data for Pishkun Reservoir.

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	-1.1	---	0.0	0	35.0	121
November	-0.6	---	0.0	0	34.4	117
December	-0.4	---	0.0	0	34.1	116
January	0.0	0	0.0	0	34.1	117
February	0.1	---	0.0	0	34.2	118
March	-0.1	---	0.0	0	34.1	113
April	0.0	0	0.0	0	34.1	94
May	41.0	97	34.8	104	40.3	88
June	77.5	122	76.2	111	41.7	103
July	51.6	65	63.0	76	30.3	81
August	-0.6	---	0.0	0	29.8	84
September	-0.7	---	0.0	0	29.0	99
Annual	166.9	68	173.9	71		

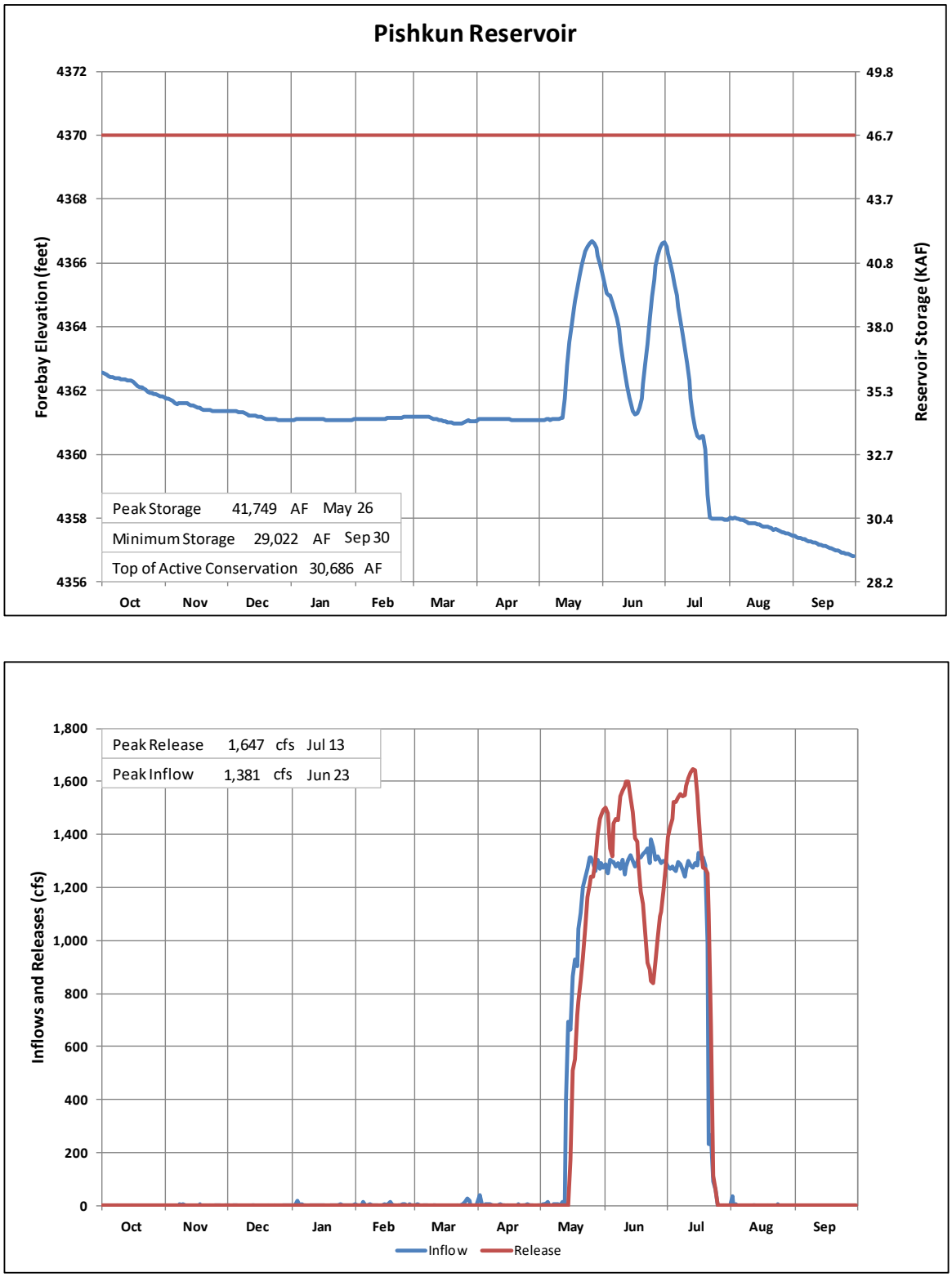


Figure MTG-18.—WY2025 hydrologic data for Pishkun Reservoir.

WY2025 data for Willow Creek Reservoir

Table MTT-27.—Reservoir allocations for Willow Creek Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	4,085.28	1	1
Top of active conservation	4,142.00	31,852	31,851

* 2021 reservoir survey and revised area-capacity table were implemented on October 1, 2021.

Table MTT-28.—Storage and elevation data for Willow Creek Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	4,119.45	7,679	10/1/2024
End of year	4,112.91	4,176	9/30/2025
Annual low	4,112.91	4,176	9/30/2025
Annual high	4,133.89	21,118	6/7/2025
Historic high	4,144.80	36,033	6/22/2018

Table MTT-29.—Inflow and discharge data for Willow Creek Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	13,889	10/1/2024–9/30-2025	17,393	10/1/2024–9/30-2025
Daily peak (cfs)	89	5/5/2025	259	7/5/2025

Table MTT-30.—WY2025 monthly inflow, outflow, and storage data for Willow Creek Reservoir

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, (KAF)	Percent of 30-yr avg	Content, (KAF)	Percent of 30-yr avg
October	3.0	150	0.0	0	10.7	55
November	1.6	76	0.0	0	12.2	57
December	0.8	114	0.0	0	13.0	59
January	0.1	34	0.0	0	13.2	58
February	0.3	84	0.0	0	13.5	59
March	0.1	21	0.0	0	13.6	58
April	2.2	123	0.0	0	15.8	63
May	4.4	108	0.0	0	20.2	71
June	1.2	35	7.9	314	13.4	46
July	0.4	40	8.2	107	5.6	25
August	-0.1	---	1.3	27	4.2	26
September	0.0	0	0.0	0	4.2	25
Annual	13.9	82	17.4	103		

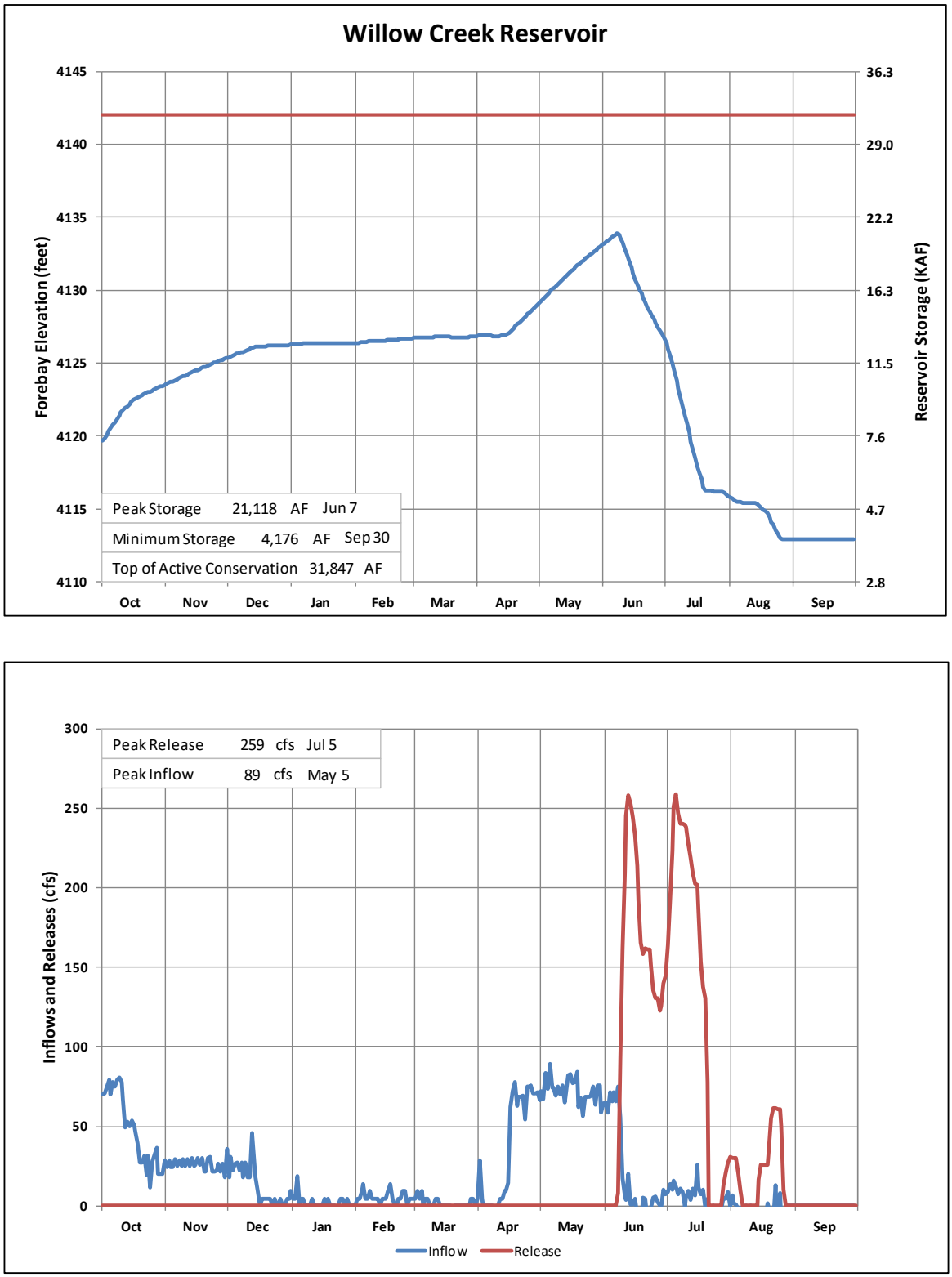


Figure MTG-19.—WY2025 hydrologic data for Willow Creek Reservoir.

Precipitation for Sun River Watershed

Precipitation data comes from an online weather database, PRISM Group at Oregon State University. PRISM outputs the monthly observed and 30-year average precipitation for selected coordinate points. Grid point elevations delineated mountain and valley regions within the watershed. The valley/mountain elevation boundary was set at 5500 ft based on the adjacent SNOTEL station, Waldron at 5600 ft.

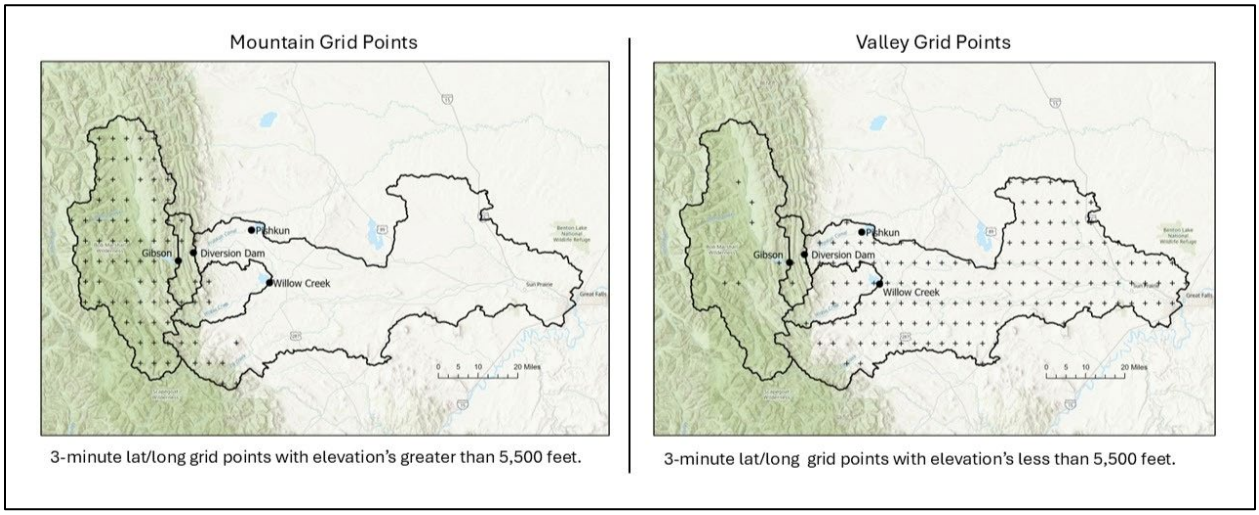
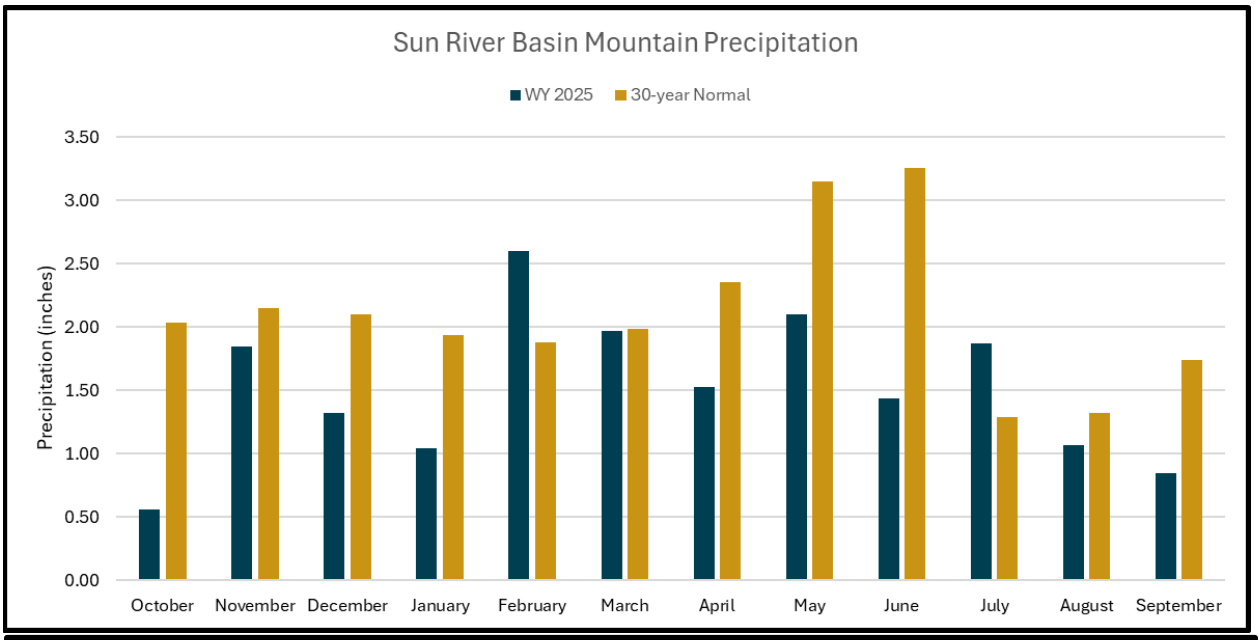


Figure MTG-20.—Grid spacing for mountain and valley precipitation data for Sun River Basin

Table MTT-31.—WY2025 monthly precipitation for Sun River Basin

Sun - Mountain	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	2.03		2.15		2.10		1.94		1.88		1.98		2.36		3.15		3.26		1.29		1.32		1.74	
Actual (in) and % of average	0.56	28	1.85	86	1.32	63	1.04	54	2.60	138	1.97	99	1.53	65	2.10	67	1.43	44	1.87	145	1.07	81	0.84	48
Year-to-date (in) and % of average	0.56	28	2.41	58	3.73	59	4.77	58	7.37	73	9.34	77	10.86	75	12.96	74	14.39	69	16.27	74	17.34	74	18.18	72

Sun - Valley	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.24		0.75		0.67		0.61		0.67		0.86		1.78		2.68		3.04		1.25		1.29		1.50	
Actual (in) and % of average	0.17	13	0.53	71	0.52	78	0.90	148	0.95	141	0.55	64	0.76	43	2.37	89	1.37	45	1.78	142	1.22	94	0.59	39
Year-to-date (in) and % of average	0.17	13	0.69	35	1.22	46	2.12	65	3.06	78	3.61	75	4.38	67	6.75	73	8.12	66	9.90	73	11.11	75	11.71	72



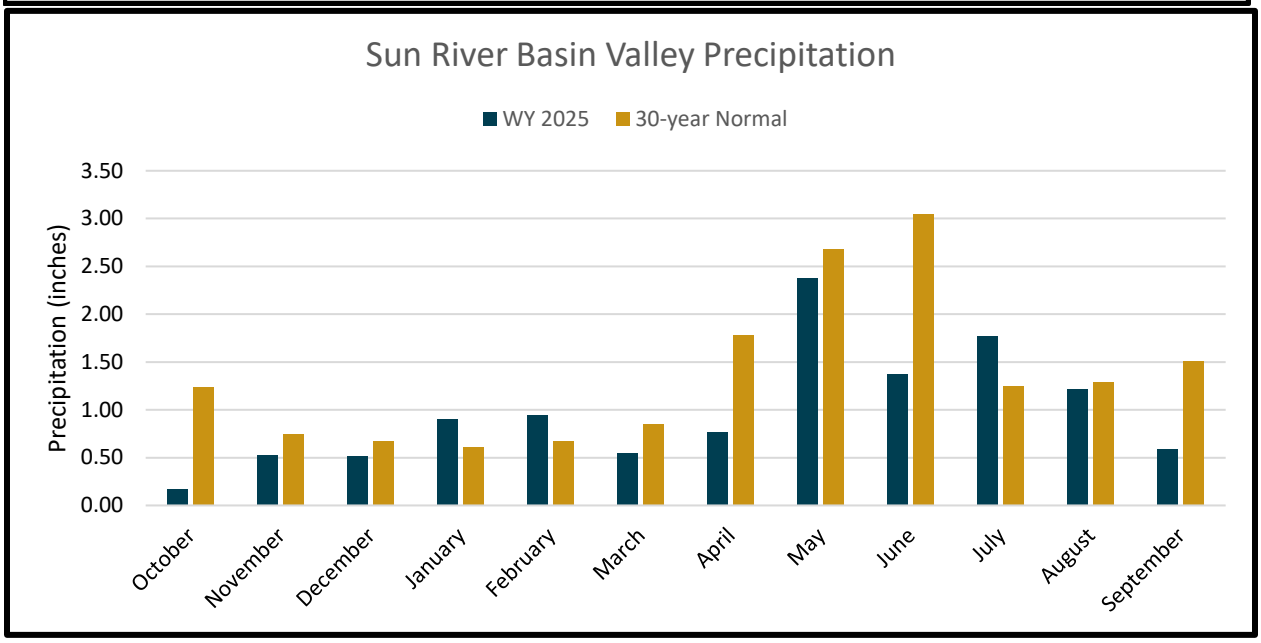


Figure MTG-21.—WY2025 monthly precipitation in the valley and mountains for Sun River Basin.

Snowpack and Forecasts for Gibson Reservoir

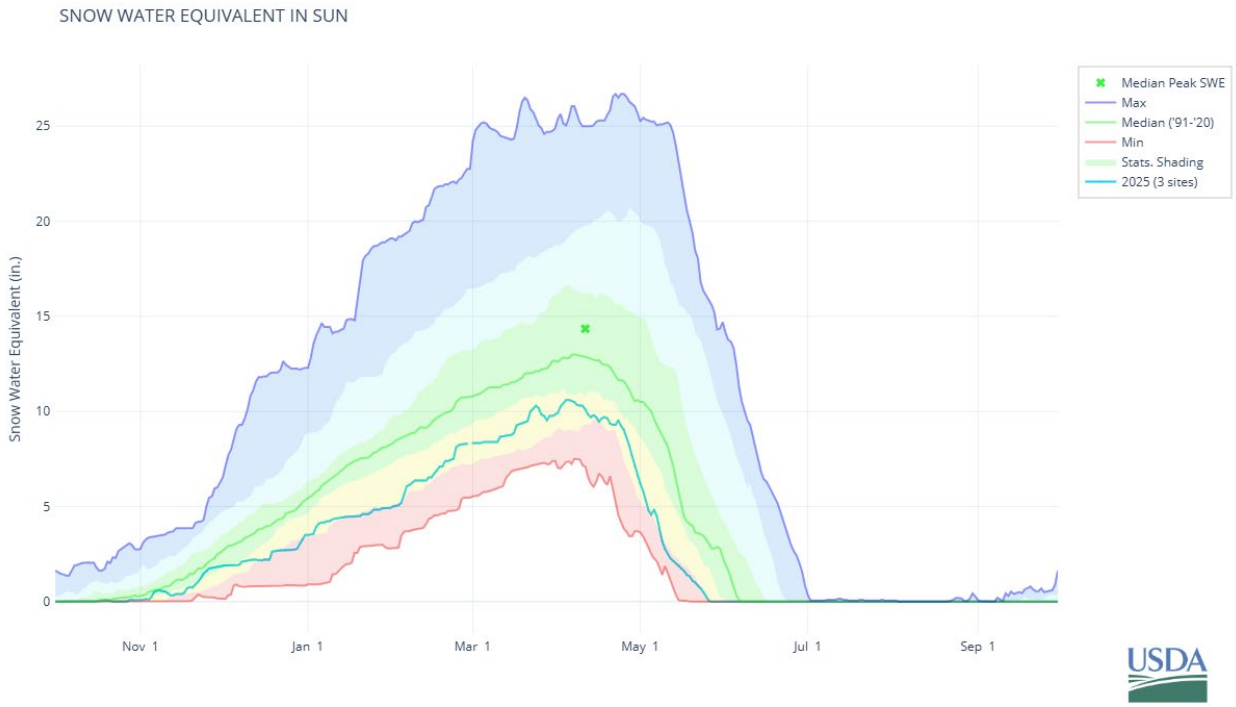


Figure MTG-22.—NRCS reported snowpack in Sun River Basin.

Table MTT-32.—2025 Gibson Reservoir April–July inflow forecasts

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[1]	June 1[2]	July 1
Percent of Median SWE	64	60	77	79	59	0	-
Forecast, KAF	315	277	314	276	195	88	-
Forecast, Percent of Average	79	69	78	69	54	43	-
Observed April–July Inflow	-	-	-	-	-	-	213
Percent of April 1 Forecast	-	-	-	-	-	-	53

[1] Runoff forecast for May-July
[2] Runoff forecast for June-July

Lake Elwell (Tiber Dam)

Tiber Dam P-S MBP is located on the Marias River near Chester, MT. It was built to provide water supply for 127,000 acres in the Lower Marias Unit and for flood control. However, the irrigation distribution works were not constructed. The reservoir is operated for flood control, fishery, and recreation benefits. The reservoir provides irrigation water to municipalities and several individual operators by water service contracts. Reclamation has a storage allocation agreement with the Chippewa Cree Tribe for 10,000 AF of water and Blackfeet Tribe for 45,000 AF.

Incorporated into the river outlet works, there is a 7.5-megawatt powerplant, privately owned by Tiber Montana, LLC. Construction of the powerplant was completed and brought on-line in June 2004. The Tiber Montana, LLC powerplant capacity is approximately 700 cfs.

Figure MTG-23.—View of Tiber Dam and Lake Elwell.

Summary of 2025 Operations

The hydrologic conditions in the Marias River Basin during WY2025 started dry and warm. Snowpack peaked at 68 percent of average on April 5. Releases started the year and remained at 400 cfs until mid-August. In August, releases were decreased to 340 cfs and cut again in September to 320 cfs where they stayed for the rest of the water year. The reservoir drafted to a low point of 2,977.80 ft by the middle of February and peaked 9 ft from full in June. The year ended at 90 percent of average storage. The following is a summary of WY2025 hydrologic

conditions in the Marias River Basin and corresponding operations of Lake Elwell and Tiber Dam. See tables MTT-33 through 36 for specific data related to Lake Elwell inflows, releases, and storage content.

October through December
Storage in Lake Elwell started the year below normal at 96 percent of average due to WY2024 being one of lowest water years on record. Overall, conditions were drier and warmer than average during October through December. Inflow during this period was only 32 percent of average. Releases started and remained at 400 cfs through the winter season. At the end of December 2024, Lake Elwell storage was at 2979.86 ft or 707,490 AF, 95 percent of average.

January through March
In January, Reclamation begins to forecast the April through July runoff volume based on snowpack measurements and other basin parameters. Snowpack was at 70 percent of median at the start of January. Runoff was forecasted to be 72 percent of average. Mountain precipitation was below average in January, and above average in February and March. Overall, this period was drier than average. Inflows remained well below average.

April through July
April through June precipitation was below average. Snowpack peaked on April 5 at 68 percent of the median peak. April through July inflow forecasts remained below average throughout the runoff. Actual runoff ended up being only 46 percent of average. Lake Elwell peaked near elevation 2984 ft on June 27 which is 9 ft below normal full pool.

August through September
August and September were drier than average, and inflows remained well below average. Releases were decreased to 320 cfs to conserve storage

Important Events – WY2025

None.

WY2025 Data for Lake Elwell

Table MTT-33.—Reservoir allocations for Lake Elwell*

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	2,966.40	543,079	543,079
Top of active conservation	2,976.00	655,956	112,877
Top of joint use	2,993.00	918,394	262,438
Top of exclusive flood control	3,012.50	1,323,068	404,674

* 2021 reservoir survey and revised area-capacity table were implemented on October 1, 2022.

Table MTT-34.—Storage and elevation data for Lake Elwell

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	2,983.82	765,457	10/1/2024
End of year	2,980.85	721,272	9/30/2025
Annual low	2,977.80	679,545	2/22/2025
Annual high	2,983.93	767,171	6/27/2025
Historic high	3,011.42	1,303,858	7/19/2011

Table MTT-35.—Inflow and discharge data for Lake Elwell

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	246,382	10/1/2024–9/30/2025	290,567	10/1/2024–9/30-2025
Daily peak (cfs)	1,939	5/7/2025	445	6/4/2025
Daily minimum (cfs)	-136	10/24/2024	322	9/22/2025
Peak spill (cfs)	-	-	0	NA
Total spill (AF)	-	-	0	NA

Table MTT-36.—WY2025 monthly inflow, outflow, and storage data for Lake Elwell

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	1.7	12	25.1	66	742.1	96
November	4.5	23	23.9	73	722.7	95
December	9.8	58	25.0	79	707.5	95
January	8.5	54	24.8	78	691.2	95
February	15.7	78	22.6	77	684.4	95
March	27.8	70	25.2	73	686.9	95
April	30.2	56	24.5	64	692.6	93
May	82.0	63	25.6	48	748.9	91
June	41.7	28	24.9	35	765.8	86
July	17.7	45	25.6	40	757.8	87
August	8.3	79	23.5	47	742.7	89
September	-1.5	---	19.9	48	721.3	90
Annual	246.4	48	290.6	56		
April–July	171.6	46				

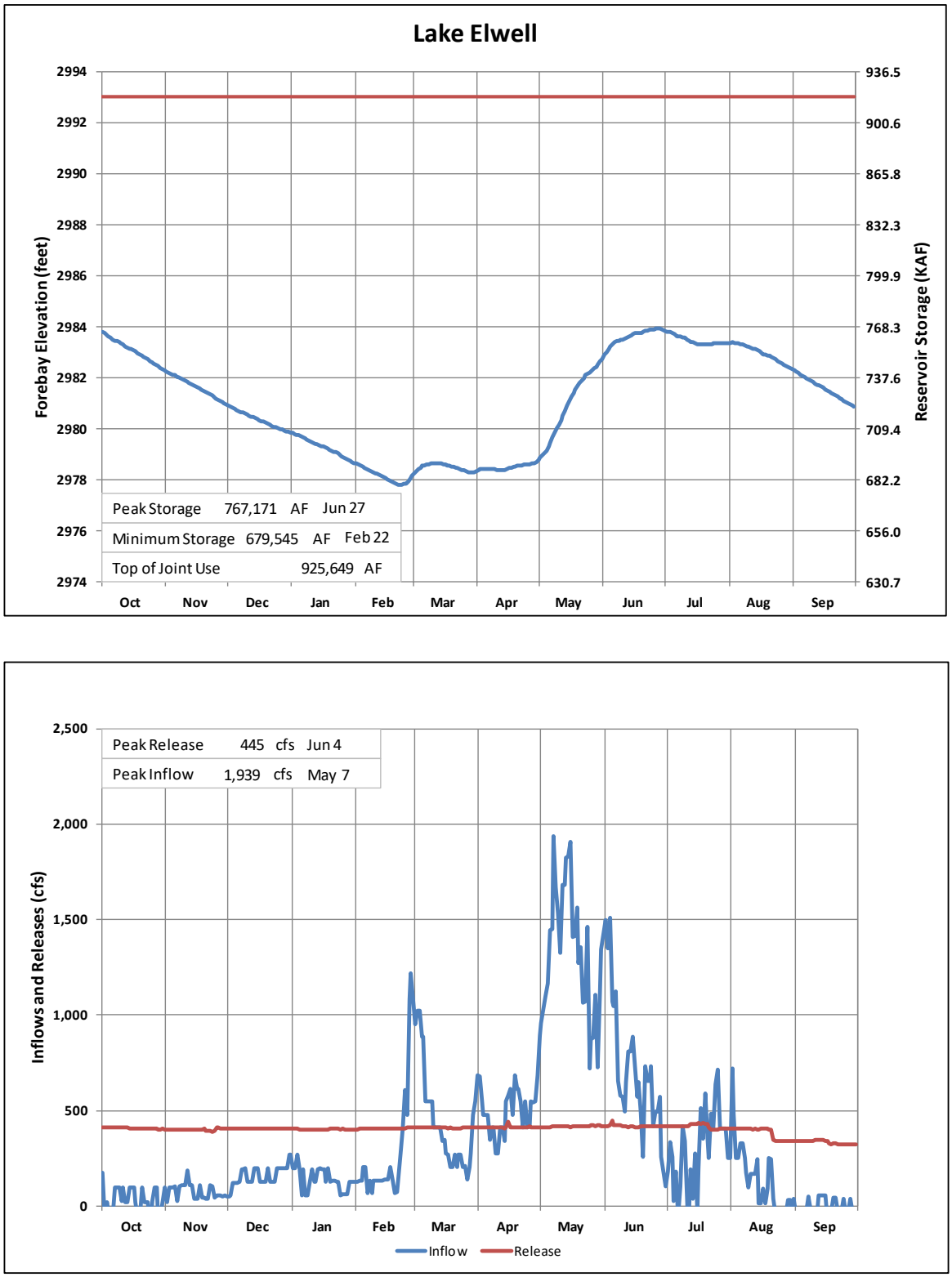


Figure MTG-24.—WY2025 hydrologic data for Lake Elwell.

Precipitation for Marias River Watershed

Precipitation data comes from an online weather database, PRISM Group at Oregon State University. PRISM outputs the monthly observed and 30-year average precipitation for selected coordinate points. Grid point elevations delineated mountain and valley regions within the watershed. The valley/mountain elevation boundary was set at 5000 ft to include the watershed's lowest elevation SNOTEL station, Dupuyer Creek at 5750 ft.

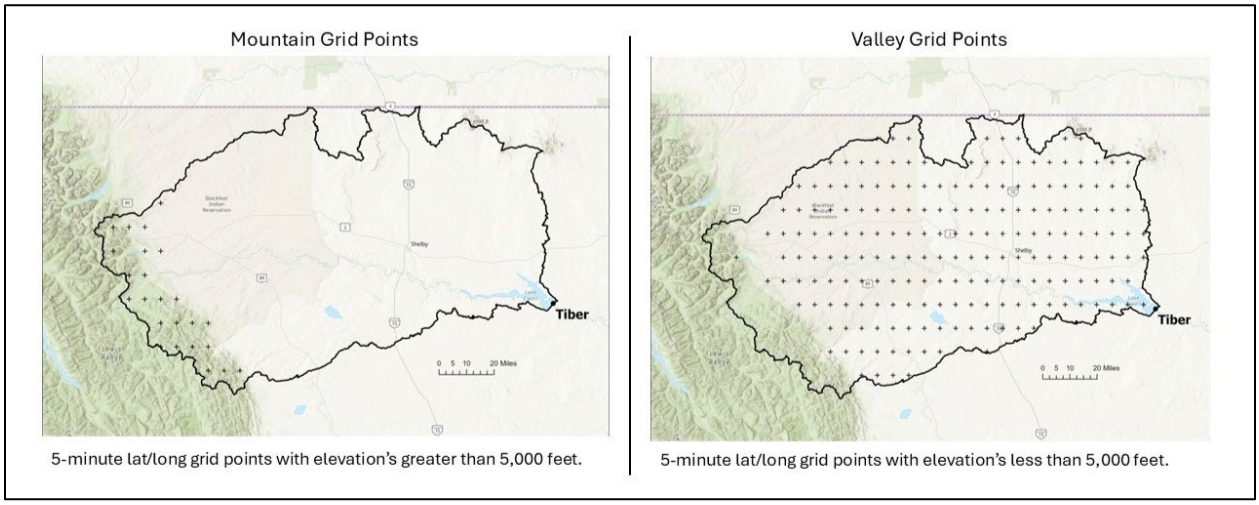
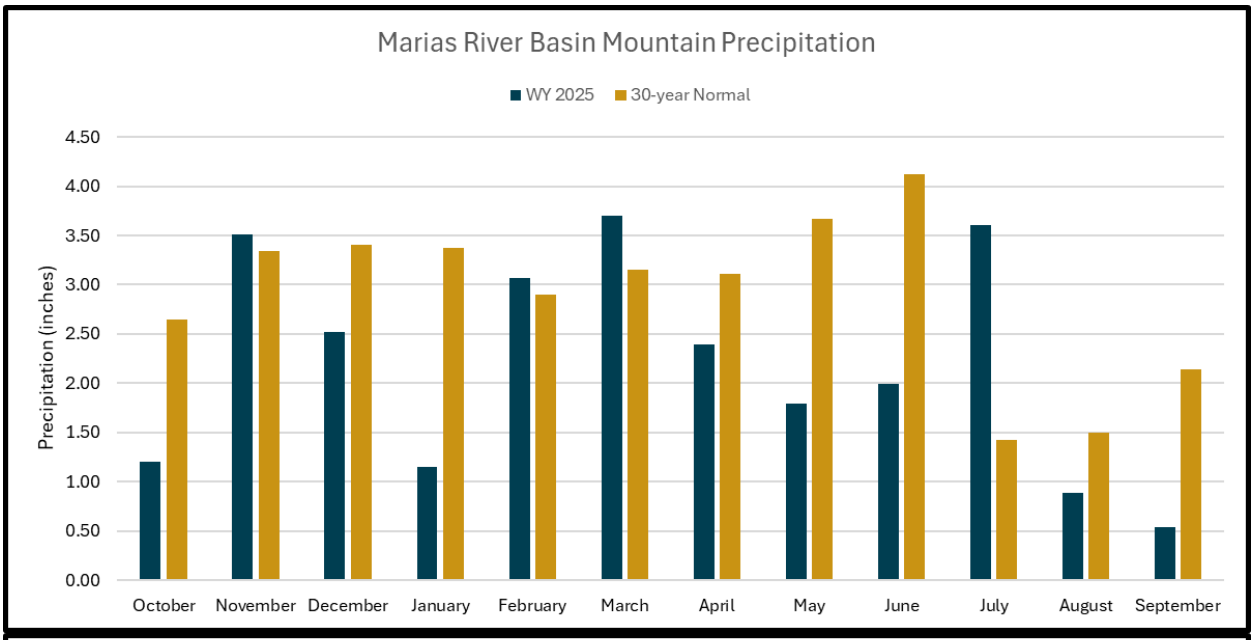


Figure MTG-25.—Grid spacing for mountain and valley precipitation data for Marias River Basin.

Table MTT-37.—WY2025 monthly precipitation for Marias River Basin

Marias - Mountain	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	2.64		3.34		3.41		3.37		2.90		3.15		3.12		3.67		4.12		1.42		1.50		2.14	
Actual (in) and % of average	1.21	46	3.51	105	2.52	74	1.15	34	3.07	106	3.70	118	2.39	77	1.79	49	2.00	48	3.61	254	0.89	59	0.54	25
Year-to-date (in) and % of average	1.21	46	4.71	79	7.23	77	8.38	66	11.44	73	15.15	81	17.54	80	19.33	76	21.33	72	24.94	80	25.83	79	26.36	76

Marias - Valley	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	0.85		0.66		0.49		0.48		0.46		0.60		1.29		2.00		2.92		1.17		1.07		1.19	
Actual (in) and % of average	0.13	15	0.62	94	0.40	81	0.66	136	0.72	156	0.43	71	0.69	54	1.30	65	2.24	77	2.30	196	1.35	126	0.19	16
Year-to-date (in) and % of average	0.13	15	0.75	50	1.15	57	1.81	73	2.52	86	2.96	83	3.65	75	4.95	72	7.18	74	9.48	87	10.83	90	11.02	84



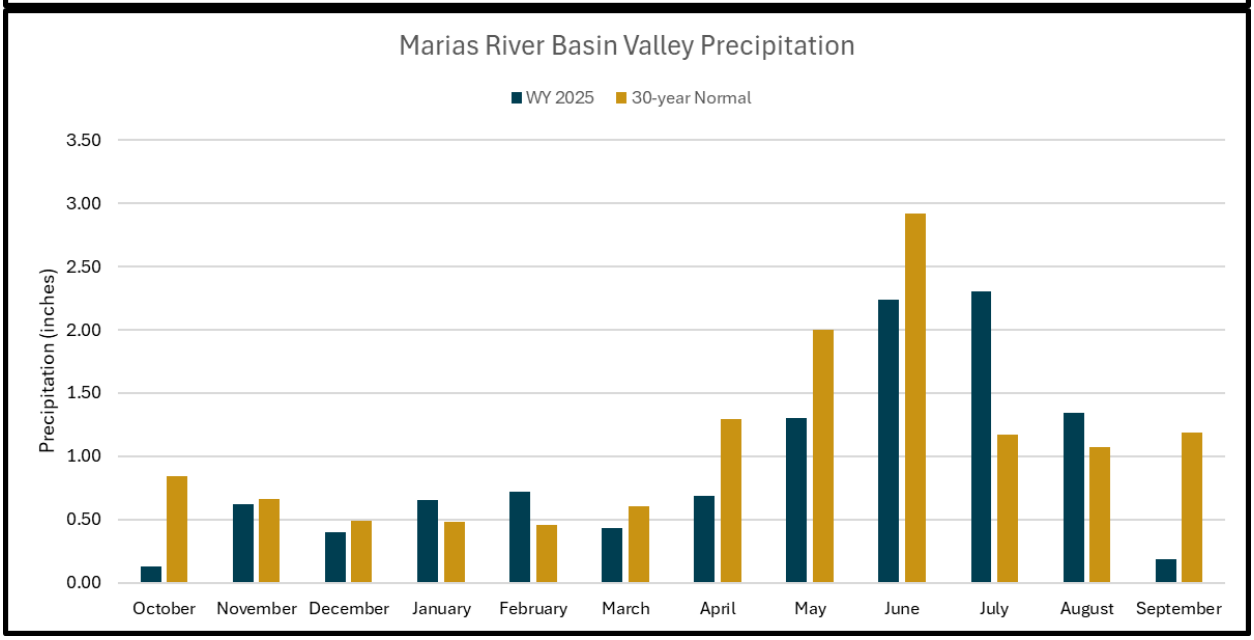


Figure MTG-26.—WY2025 monthly precipitation in the valley and mountains for Marias River Basin.

Snowpack and Forecasts for Lake Elwell

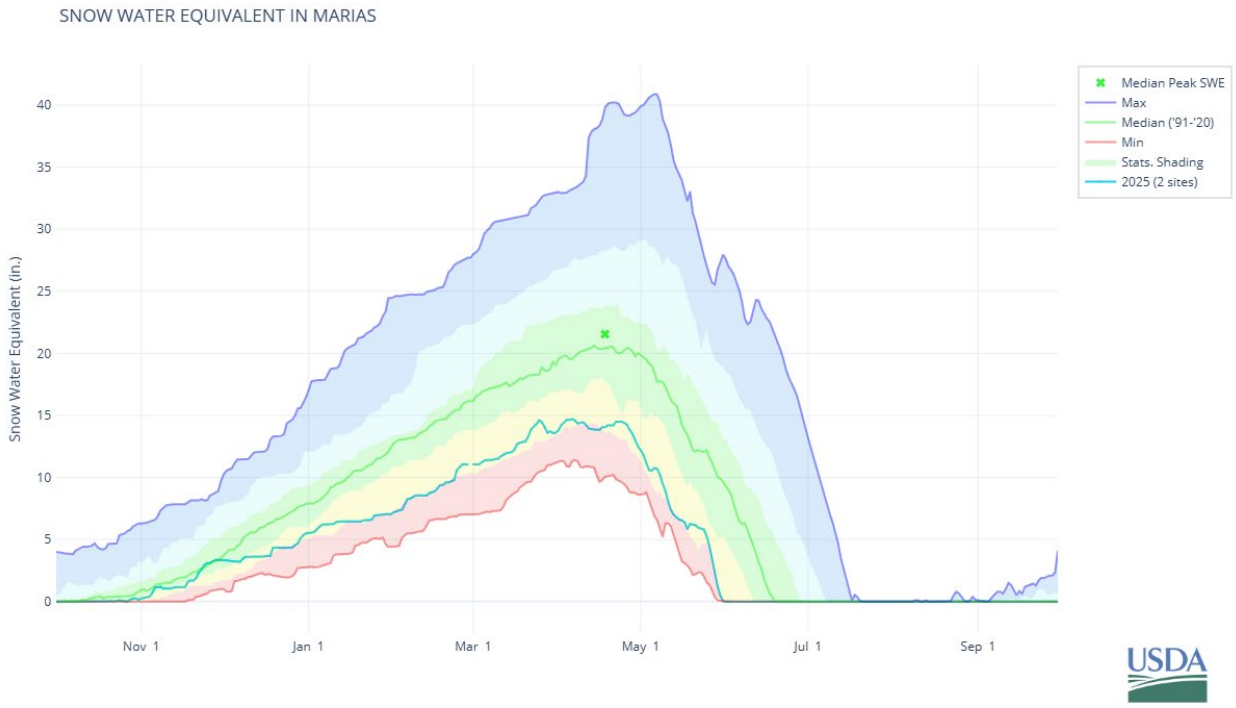


Figure MTG-27.—NRCS reported snowpack in Marias River Basin.

Table MTT-38.—2025 Lake Elwell April–July inflow forecasts

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[1]	June 1[2]	July 1
Percent of Median SWE	70	56	68	71	61	0	-
Forecast, KAF	267	238	273	293	188	53	-
Forecast, percent of average	72	64	74	79	60	28	-
Observed April–July inflow	-	-	-	-	-	-	172
Percent of April 1 forecast	-	-	-	-	-	-	46

[1] Runoff forecast for May–July
[2] Runoff forecast for June–July

Milk River Project

The Milk River Project, located in north-central Montana, is served by Sherburne, Fresno, and Nelson Reservoirs. Fresno Reservoir has joint-use flood control space, provides a municipal water supply to several municipalities on or near the Project, and serves as the primary irrigation storage structure for the Project. Approximately 101,500 acres are served by irrigation districts, 9,500 acres are served by private facilities and between 5,000 and 6,000 acres are served supplemental water by the Fort Belknap Indian Irrigation Project.

Lake Sherburne

Lake Sherburne is in Glacier National Park on Swiftcurrent Creek, a tributary of the St. Mary River in the Hudson Bay Drainage Basin. The use of natural flow of the St. Mary and Milk Rivers is divided between Canada and the United States by the 1909 Boundary Waters Treaty. The United States utilizes its entitlement to St. Mary River water by regulating flows through storage in Lake Sherburne and diverting St. Mary River flows through the St. Mary Canal to the Milk River Basin.

Figure MTG-28.—Lake Sherburne's outlet works.

Summary of WY2025 Operations

WY2025 started off with much above average storage in Lake Sherburne due to the failure of the St. Mary Siphons in June 2024. Snowpack peaked well below average resulting in below average inflows. Due to ongoing construction for siphons replacement, St Mary canal operations were

limited, and Lake Sherburne storage remained above average for the year. See tables MTT-39 through 42 and figure MTG-32 for specific data related to Lake Sherburne inflows, releases, and storage content.

October through December

At the start of WY2025, storage content in Lake Sherburne was much above average due to the failure of the St. Mary Siphons in June 2024. Releases from Lake Sherburne were shut off on November 4, 2024, after excess storage was removed and the carryover storage target was met. Releases from Lake Sherburne are required until October 1 in accordance with the biological opinion for bull trout. Temperatures were warmer than average during October through December. Conditions were dry overall and inflows were 44 percent of average from October 1 through December 31. By the end of December, Lake Sherburne storage was 124 percent of average due to above average carryover storage.

January through March

In January, Reclamation begins to forecast the April through July runoff volume based on snowpack measurements and other basin parameters. On January 1, 2025, the NRCS reported mountain snowpack SWE in the St. Mary Basin was 94 percent of median and the runoff forecast was 81 percent of average. Temperatures fluctuated during the January through March period. January was very dry while February and March received about a normal amount of precipitation. Snowpack decreased to 77 percent of median by the end of March.

April through July

Releases from Lake Sherburne started on April 28 to slow the rate of fill in the reservoir. Mountain snowpack SWE was 77 percent of average on April 1. Snowpack peaked on April 5 at 81 percent of the median peak. Precipitation during April and May was below average, but inflows were near average. The reservoir continued to fill, and storage was 164 percent of average at the end of May.

The U.S. can create a deficit delivery during March, April, and May in the St. Mary River Basin. A deficit delivery is when Canada receives less natural flow than what they are entitled. Accounting and use of St. Mary and Milk River natural flow is tracked in accordance with the International Joint Commission (IJC) Procedures Manual for natural flow calculations of the St. Mary and Milk River Basins (Procedures Manual). The specific guidance on deficit deliveries is called the Letter of Intent (LOI). A deficit delivery allows Reclamation to conserve storage in Lake Sherburne or maintain desired flows in the St. Mary Canal when there is insufficient natural flow. No deficits were created during this time due to the canal not being operational and above average storage in Lake Sherburne.

Inflows tapered off during June and were much below normal at 52 percent of average. Precipitation in June was below average. Lake Sherburne did not fill in WY2025 but reached a peak elevation for the year of 4786.60 ft on June 18. This had little impact as the canal had a

short operating period in WY2025. On June 25 diversions to the St. Mary Canal were initiated to transfer water from the St. Mary River basin to Fresno Reservoir as construction of the new siphons was completed. The St. Mary Canal reached 550 cfs on June 28.

On July 11, an embankment on the St. Mary Canal downstream from Spider Lake failed. Diversions to the canal were shutoff while repairs were made. On July 17, the repairs were complete and diversions through the canal resumed. The St. Mary Canal returned to 550 cfs on July 22.

August through September

To take advantage of the remaining favorable weather for construction, it was decided to start replacing the Halls Coulee siphons at the end of August. Therefore, diversions to the St. Mary Canal were shut off on August 22. Releases from Lake Sherburne fluctuated the rest of WY2025 to manage storage levels, work around construction constraints, and get down to a carryover storage target. A deficit delivery of 72 cfs-days to Canada in the St. Mary River basin occurred during the first division period in August. This was due to a change in the Halls Coulee construction schedule late in the division period that allowed for diverting water through the canal an extra week. The deficit was paid back in the subsequent division period.

Releases from Lake Sherburne were reduced to the minimum amount between September 12–18 to accommodate rip rap placement under the St. Mary canal siphon bridge that spans over the St. Mary River. Releases were shutoff for the season on October 2. Releases from Lake Sherburne are required until October 1 in accordance with the biological opinion for bull trout. Based on provisional data, diversions from the St. Mary River to the Milk River totaled 50,482 AF in WY2025, well below normal.

Figure MTG-29.—Completed St. Mary Canal Siphons.

Fresno Reservoir

Fresno Reservoir is located upstream of all Milk River Project lands on the Milk River near Havre, MT. The top 33,841 AF of storage is used jointly for flood control and conservation and is typically not filled until the start of spring runoff. Fresno Reservoir stores the natural flow of the Milk River along with water diverted into the Milk River from the St. Mary River and Lake Sherburne. Stored water is used principally for irrigation but Havre and Chinook, MT have a contract for a minimum flow in the river of 25 cfs during the winter to maintain suitable water for municipal use. The city of Harlem and the Hill County Water District also have contracts for municipal water use.

Figure MTG-30.—Aerial view of Fresno Reservoir and Dam.

Summary of WY2025 Operations

Fresno Reservoir storage started off the year well below average. Fresno Reservoir did not fill. However, an above average runoff from snowmelt in February and the startup of the St. Mary Canal at the end of June allowed for a partial irrigation. An irrigation allotment was set to 0.40 AF per acre for the season. See tables MTT-43 through 46 and figure MTG-33 for specific data related to Fresno Reservoir inflows, releases, and storage content.

October through December

Releases from Fresno Reservoir were 40 cfs at the start of the water year. This is the minimum allowable release from Fresno Reservoir based on minimum gate opening for one gate on the river outlet works. Storage was only 52 percent of average at the start of the water year due to the failure of the St. Mary Siphons on June 17, 2024.

Inflows during October through December were well below average. Overall, precipitation in the Milk River Basin was below average for October through December above and below Fresno Reservoir. Temperatures were above average during October and December and below average in November. By the end of December, storage in Fresno Reservoir was only 35 percent of average.

January through February
Snowpack in the Bear Paw Mountains was 136 percent of median on January 1. January and February precipitation was near average above Fresno and above average below Fresno. January temperatures were above average, but February was much below average except towards the end of the month. Runoff from low elevation snowpack began at the end of February and February inflows ended up being 456 percent of average.

March through June
Spring runoff season generally occurs during March through June. The most reliable water supply runoff forecast for the Milk River Basin occurs on March 1. The March 1 forecast for natural runoff above Fresno Reservoir for March through September was only 33 percent of average. The Milk River runoff forecasts for Milk River at Eastern Crossing are provided by the National Weather Service, Missouri Basin River Forecast Center. The March water supply outlook showed that Fresno Reservoir was not expected to fill, and irrigation allotments would need to be reduced due to the forecast and limited St. Mary Canal operations.

March and April precipitation was below average. Inflows were much below average from March 1 through April 30 at 34 percent of average. Storage in Fresno Reservoir at the end of April was only 64 percent of average.

The Milk River Joint Board of Control (MRJBC) set the initial irrigation allotment for the 2025 irrigation season at 0.4 acre-feet/acre (AF/acre) at their May 13 meeting after Reclamation provided several water supply scenarios. That is less than a quarter of the normal allotment. Irrigation began on May 25 and concluded on June 17. Releases for irrigation were between 800–950 cfs. Fresno Reservoir storage was used to determine when to end the irrigation season. Irrigation releases were ended when storage was near 12,000 AF to avoid dropping below minimum storage contents of 6,000–8,000 AF. On June 12, releases were reduced to 100 cfs to meet the water needs of Fort Belknap Indian Irrigation Project and municipalities.

The May 1 forecast projected that Fresno Reservoir would be short of filling by about 20 KAF with irrigation starting at the end of May and St. Mary diversions not reaching the reservoir until early July. May precipitation was below average, and inflows were only 4 percent of average. June precipitation was below average, and Fresno Reservoir inflow was only 4 percent of average. The only irrigation of the season was done by June 17, and end of June storage was at elevation 2542.33 ft or 8,686 AF, 12 percent of average.

July through September
Precipitation was above average for July but below average during August and September above Fresno Reservoir. Storage in Fresno Reservoir reached its minimum contents for WY2025 on July 5 at 2541.5 ft or 7,758 AF. On July 6, inflows began to increase due to St. Mary Canal diversions reaching Fresno Reservoir. Releases were decreased to 75 cfs on July 7 to conserve storage and then set to the winter release of 40 cfs on September 4. July through September inflows were 55 percent of average. Storage in Fresno Reservoir ended WY2025 at 2559.4 ft or 36,708 AF.

Nelson Reservoir

Nelson Reservoir, located near Malta, MT, is an off-stream reservoir, receiving its water supply from the Milk River by diversion through the Dodson South Canal. Nelson Reservoir is the only source of water supply for the lower portion of the Malta Irrigation District. Nelson Reservoir also serves the Glasgow Irrigation District when water is not available from Fresno Reservoir.

Figure MTG-31.—Aerial view of Nelson Reservoir and Dikes.

Summary of WY2025 Operations

October through March

Storage in Nelson Reservoir at the start of WY2025 was 111 percent of average. Storage slowly decreased through seepage and evaporation until the end of February. Storage in Nelson Reservoir on February 28 was still 106 percent of average.

March inflows were 334 percent of average with Malta Irrigation District moving water to Nelson Reservoir from the Milk River. At the end of March storage was 124 percent of average.

April through July

Nelson Reservoir peaked at 2220.79 ft, 75,497 AF on April 24. Irrigation releases started on April 28 through Nelson South Canal.

Releases through the Nelson North Canal for Glasgow Irrigation District occurred from May 2 through June 30. Releases to Nelson South Canal occurred from April 28 through June 19. Irrigation releases were shut off for the season on June 19.

August through September
Malta Irrigation District continued to operate the Dodson South Canal until August 28 to capture natural runoff and irrigation return flows at Dodson Diversion Dam. Storage in Nelson Reservoir was at 108 percent of average at the end of WY2025.

Additional hydrologic and statistical information pertaining to the operation of Nelson Reservoir during 2025 can be found in tables MTT-47 through 50 and figure MTG-34.

Important Events – WY2025

November 4, 2024: Releases from Lake Sherburne are shut off for the winter season.

February 24, 2025: Runoff and diversions to Dodson South Canal reach Nelson Reservoir.

April 17, 2025: A conference call was held with the IJC Field Representatives to discuss St. Mary and Milk River apportionments. This was the first call of the season.

April 28, 2025: Releases begin from Lake Sherburne for the irrigation season.

May 13, 2025: MRJBC set the irrigation allotment at 0.4 AF/acre at a MRJBC meeting.

May 20, 2025: Fresno Reservoir releases were increased for the start of the irrigation season.

May 21, 2025: A conference call was held with the IJC Field Representatives to discuss St. Mary and Milk River apportionments.

June 12, 2025: Releases from Fresno Reservoir are set at approximately 100 cfs to serve the municipalities and Fort Belknap Irrigation District.

June 16, 2025: An emergency conference call was held with the IJC Field Representatives to discuss a deficit accruing in the Milk River.

June 19, 2025: Releases from Nelson Reservoir were discontinued.

June 25, 2025: Construction on the St. Mary siphons was completed and diversions to the St. Mary Canal started to move water to the Milk River Basin.

July 7, 2025: Releases from Fresno Reservoir decreased to 75 cfs to conserve storage.

July 13, 2025: Diversions to the St. Mary Canal were shut off to repair a section of the canal that was failing.

July 17, 2025: Diversions to the St. Mary Canal resume as repairs on the canal were completed.

August 22, 2025: Diversions to the St. Mary Canal were shut off for the season to accommodate construction of the Halls Coulee Siphon replacement.
September 4, 2025: Releases from Fresno Reservoir are set to the winter release rate of approximately 40 cfs.

September 25, 2025: A conference call was held with the IJC Field Representatives to discuss St. Mary and Milk River apportionments.

October 2, 2025: Lake Sherburne releases were discontinued.

WY2025 data for Lake Sherburne

Table MTT-39.—Reservoir allocations for Lake Sherburne

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	4,729.30	1,899	1,899
Top of active conservation	4,788.00	66,147	64,248

* 2002 reservoir survey and revised area-capacity table were implemented on October 1, 2005.

Table MTT-40.—Storage and elevation data for Lake Sherburne

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	4,770.34	39,168	10/1/2024
End of year	4,762.61	29,886	9/30/2025
Annual low	4,762.43	29,682	10/31/2024
Annual high	4,786.60	63,758	6/18/2025
Historic high	4,788.30	68,371	6/30/1986

Table MTT-41.—Inflow and discharge data for Lake Sherburne

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	99,594	10/1/2024–9/30/2025	108,897	10/1/2024–9/30/2025
Daily peak (cfs)	883	5/31/2025	693	8/14/2025
Daily minimum (cfs)	-12	1/8/2025	0	*

* During non-irrigation season

Table MTT-42.—WY2025 monthly inflow, outflow, and storage data for Lake Sherburne

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	2.6	40	12.1	422	29.7	155
November	2.9	37	0.2	10	32.4	130
December	2.5	62	0.0	0	34.9	124
January	1.3	44	0.0	0	36.2	117
February	1.4	55	0.0	0	37.6	113
March	4.4	117	0.0	0	42.0	128
April	9.9	102	0.3	2	51.5	214
May	31.6	101	21.9	122	61.2	164
June	20.5	52	18.8	102	62.9	106
July	14.8	80	23.3	90	54.4	106
August	6.2	73	23.6	75	37.0	133
September	1.5	28	8.6	50	29.9	183
Annual	99.6	71	108.9	78		
April–July	76.8	78				

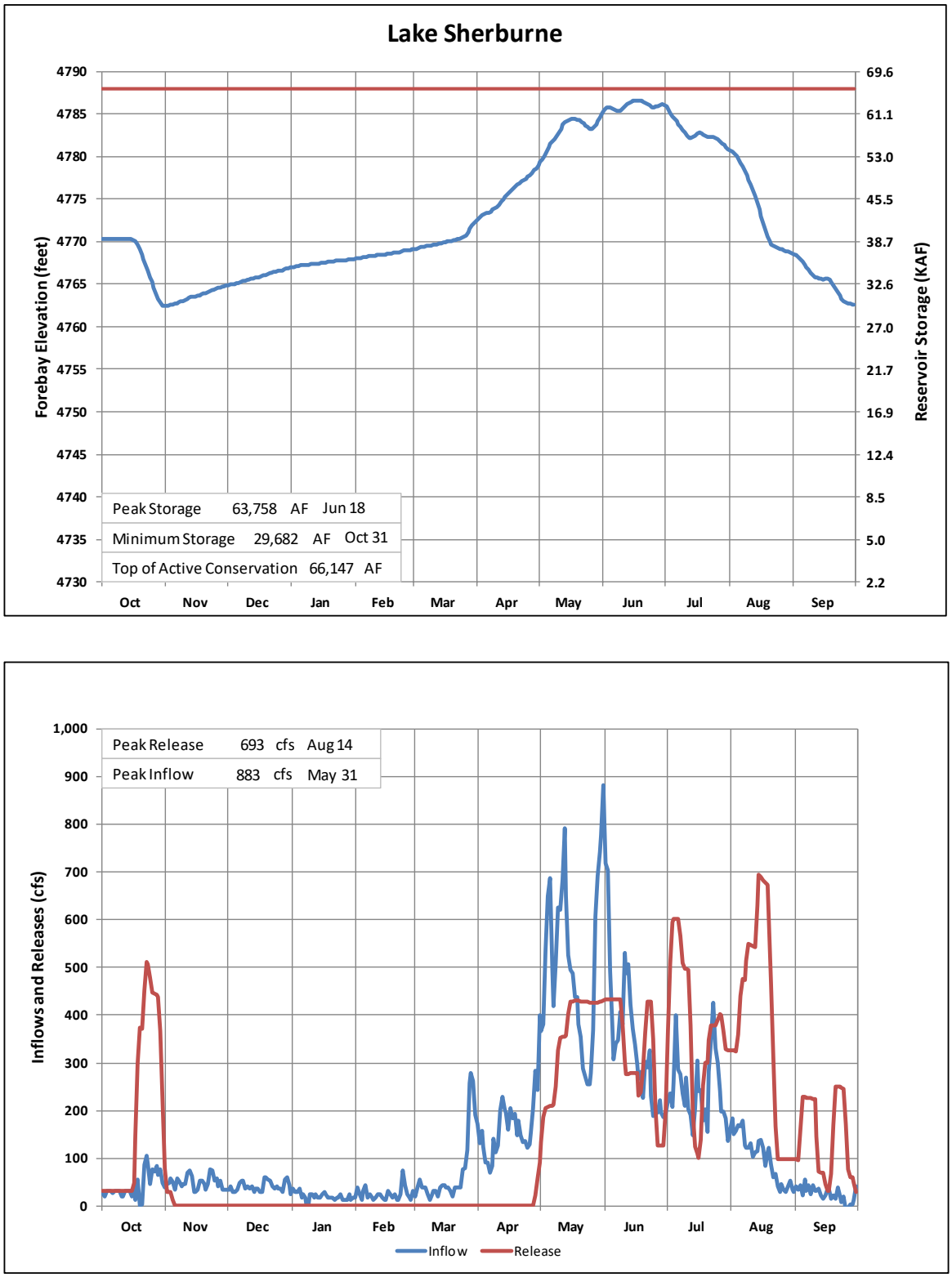


Figure MTG-32.—WY2025 hydrologic data for Lake Sherburne.

WY2025 Data for Fresno Reservoir

Table MTT-43.—Reservoir allocations for Fresno Reservoir*

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	2,530.00	158	158
Top of active conservation	2,567.00	57,905	57,747
Top of joint use	2,575.00	91,746	33,841

* 2010 reservoir survey and revised area-capacity table were implemented on October 1, 2013.

Table MTT-44.—Storage and elevation data for Fresno Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	2,551.43	21,506	10/1/2024
End of year	2,559.40	36,708	9/30/2025
Annual low	2,541.50	7,758	7/5/2025
Annual high	2,561.98	43,014	5/5/2025
Historic high	2,579.30	153,694	4/2/1952

Table MTT-45.—Inflow and discharge data for Fresno Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	82,009	10/1/2024–9/30/2025	66,529	10/1/2024–9/30/2025
Daily peak (cfs)	3,054	2/26/2025	944	5/31/2025
Daily minimum (cfs)	-18	5/16/2025	37	2/23/2025

Table MTT-46.—WY2025 monthly inflow, outflow, and storage data for Fresno Reservoir

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	-0.3	---	2.4	51	18.8	45
November	0.0	0	2.3	78	16.5	39
December	0.1	6	2.3	81	14.2	35
January	0.0	0	2.3	80	11.9	31
February	19.9	448	2.1	70	29.7	76
March	13.6	67	2.6	32	40.7	83
April	4.8	14	2.5	16	43.0	64
May	1.6	4	17.2	42	27.4	40
June	1.9	4	20.6	45	8.7	12
July	14.9	55	4.9	10	18.7	38
August	24.9	90	4.6	11	39.0	103
September	0.7	4	2.7	15	36.7	90
Annual	82.0	35	66.5	28		
April–July	23.2	15				

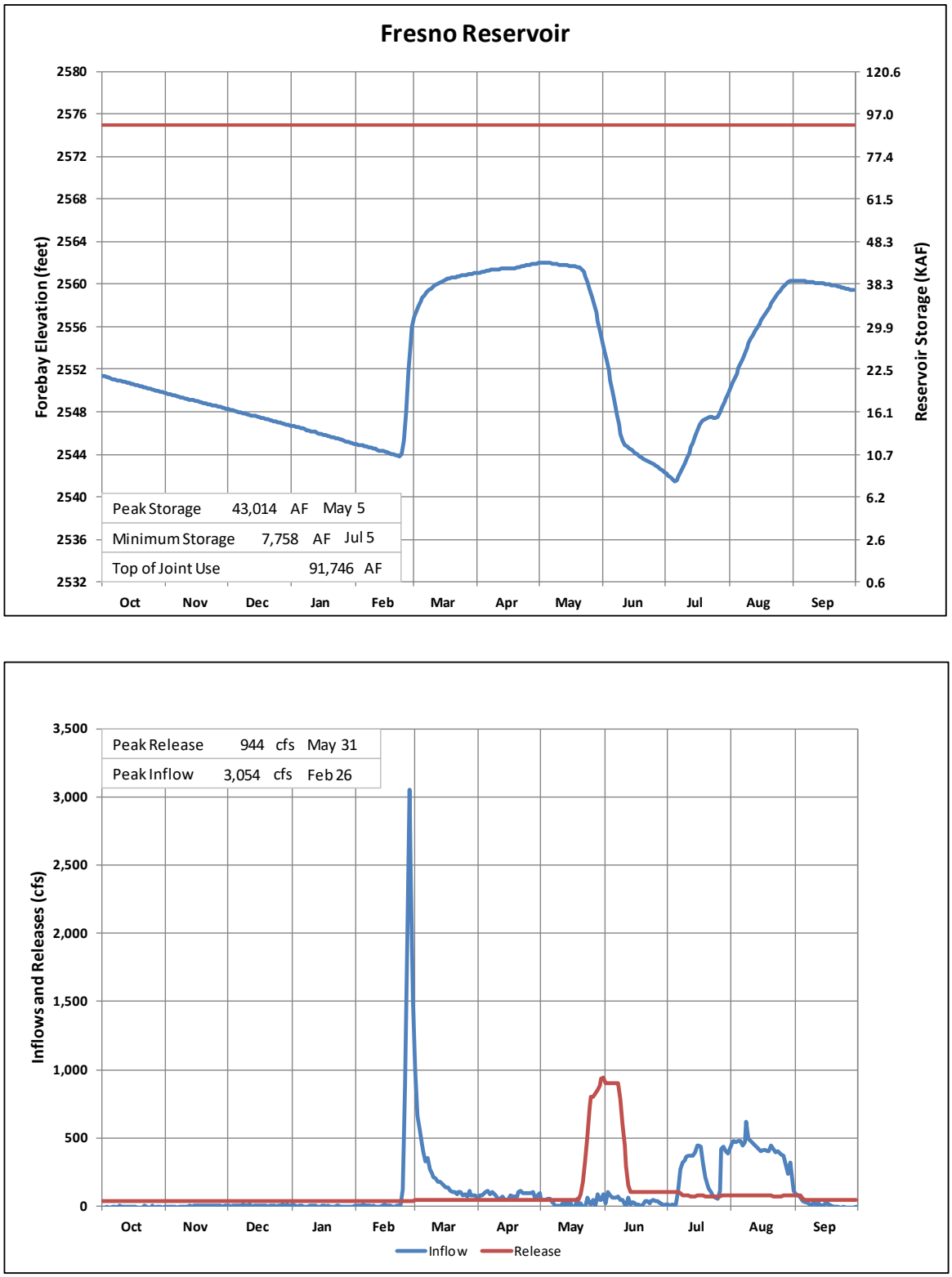


Figure MTG-33.—WY2025 hydrologic data for Fresno Reservoir.

WY2025 Data for Nelson Reservoir

Table MTT-47.—Reservoir allocations for Nelson Reservoir

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	2,200.00	18,140	18,140
Top of active conservation	2,221.60	78,950	60,810

* 1999 reservoir survey and revised area-capacity table were implemented on October 1, 2001.

Table MTT-48.—Storage and elevation data for Nelson Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	2,217.47	62,263	10/1/2024
End of year	2,217.22	61,318	9/30/2025
Annual low	2,213.87	49,436	6/23/2025
Annual high	2,220.79	75,497	4/24/2025
Historic high	2,221.68	79,297	6/1/2007

Table MTT-49.—Inflow and discharge data for Nelson Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	25,996	10/1/2024–9/30/2025	26,979	10/1/2024–9/30/2025
Daily peak (cfs)	342	3/13/2025	357	5/10/2025
Daily minimum (cfs)	-137	9/4/2025	0	*

* During non-irrigation season

Table MTT-50.—WY2025 monthly inflow, outflow, and storage data for Nelson Reservoir.

Month	Inflow, KAF	Percent of 30-yr avg	Outflow, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	-3.4	---	0.0	0	58.9	103
November	-2.2	---	0.0	0	56.7	103
December	-1.6	---	0.0	0	55.2	103
January	-1.6	---	0.0	0	53.6	103
February	0.6	---	0.0	0	54.2	106
March	13.8	334	0.0	0	68.0	124
April	7.5	74	0.4	35	75.1	117
May	1.0	11	16.9	173	59.3	93
June	1.6	17	9.7	100	51.2	80
July	4.0	61	0.0	0	55.2	99
August	9.8	110	0.0	0	65.0	121
September	-3.7	---	0.0	0	61.3	108
Annual	26.0	49	27.0	51		

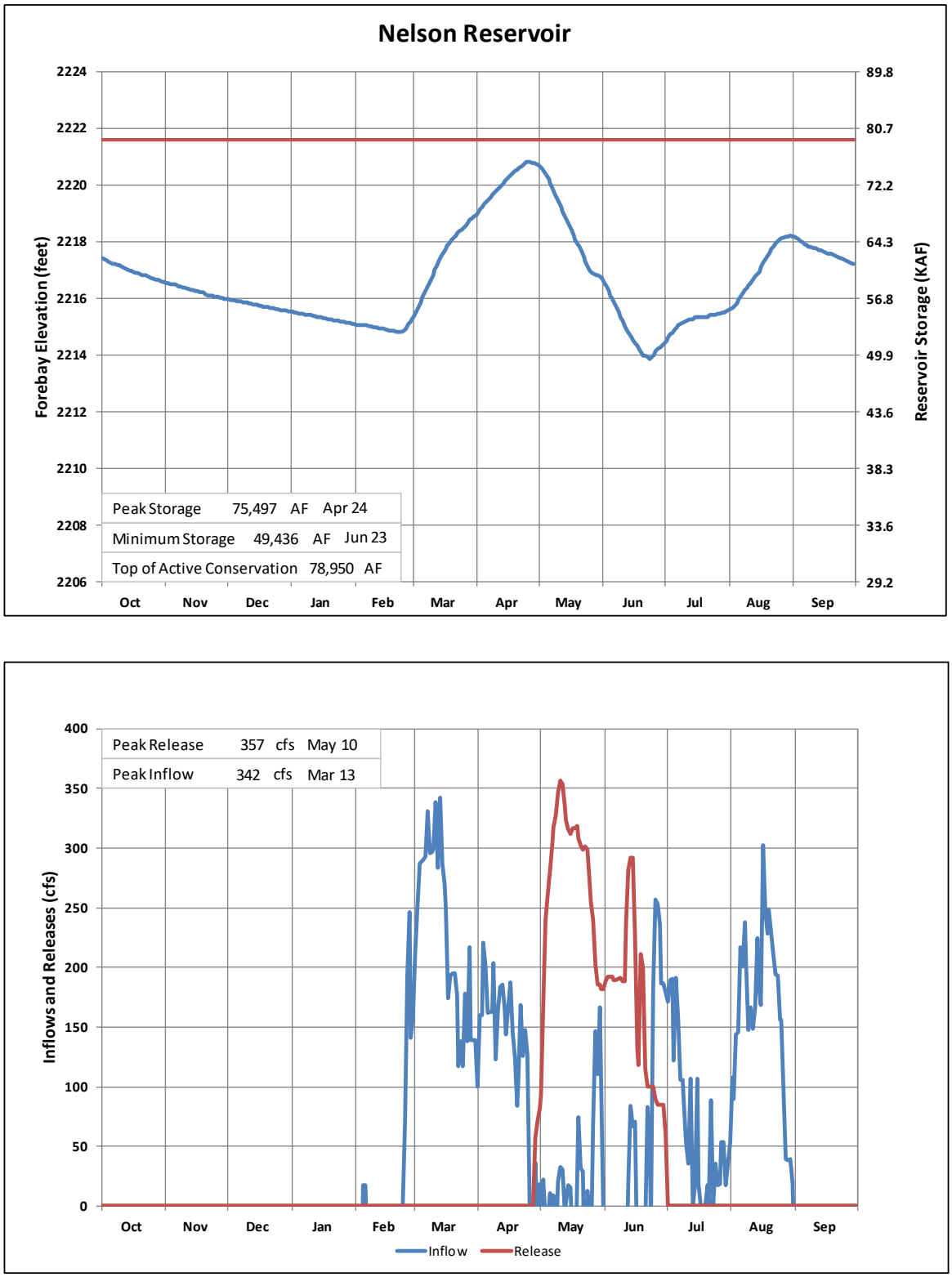


Figure MTG-34.—WY2025 hydrologic data for Nelson Reservoir.

Precipitation for St. Mary River and Milk River Basins

Precipitation data comes from an online weather database, PRISM Group at Oregon State University. PRISM outputs the monthly observed and 30-year average precipitation for selected coordinate points. St. Mary and Milk River watersheds were delineated into three regions, St. Mary (including Sherburne), Fresno (upstream) and watersheds downstream from Fresno Dam that flow into the Milk River. PRISM processed limited grid points in Canada.

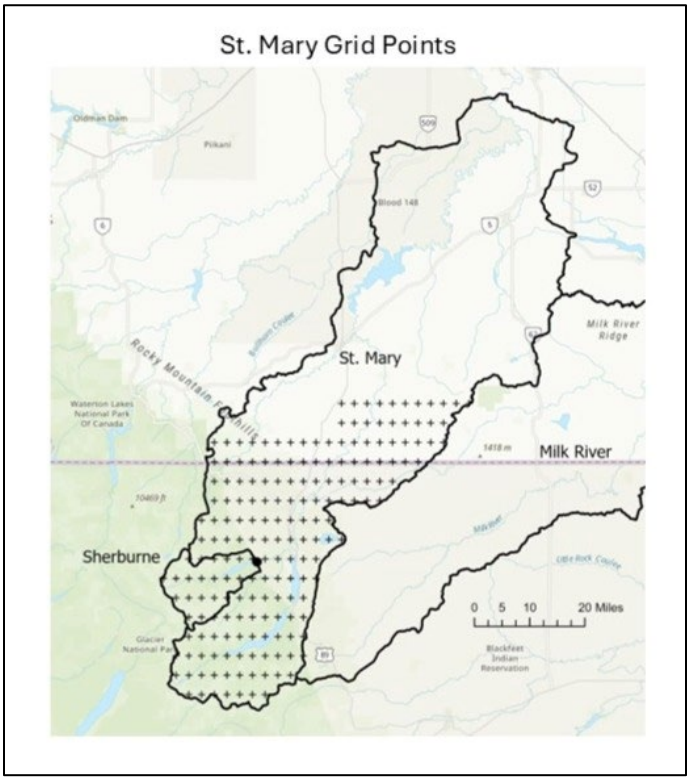


Figure MTG-35.—Grid spacing for precipitation data for St. Mary River Basin.

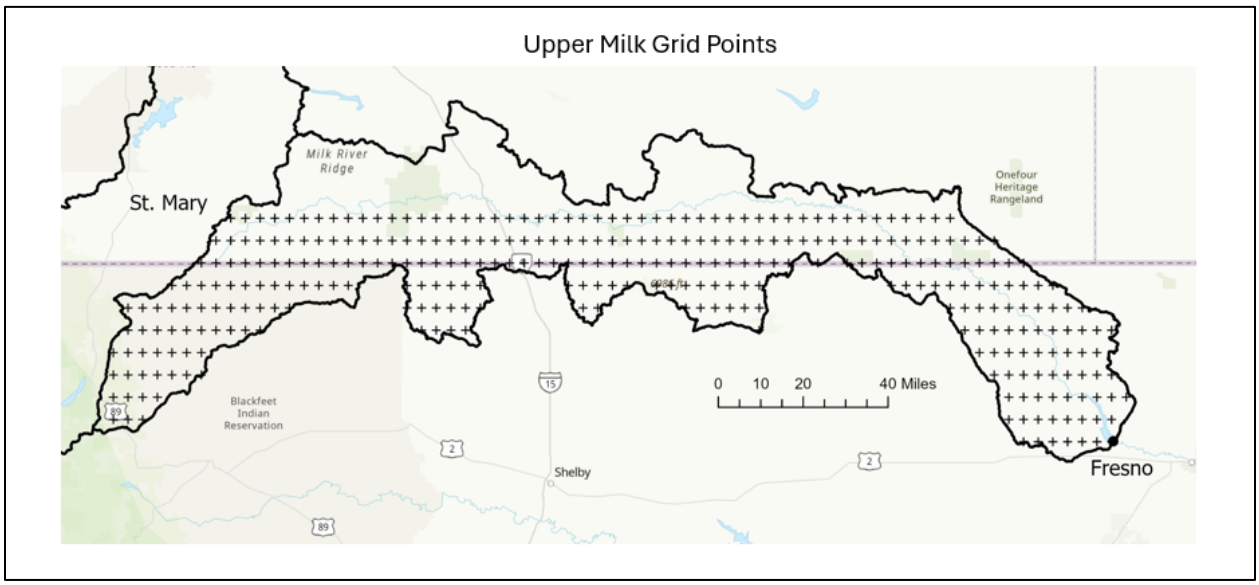


Figure MTG-36.—Grid spacing for precipitation data Upper Milk River Basin.

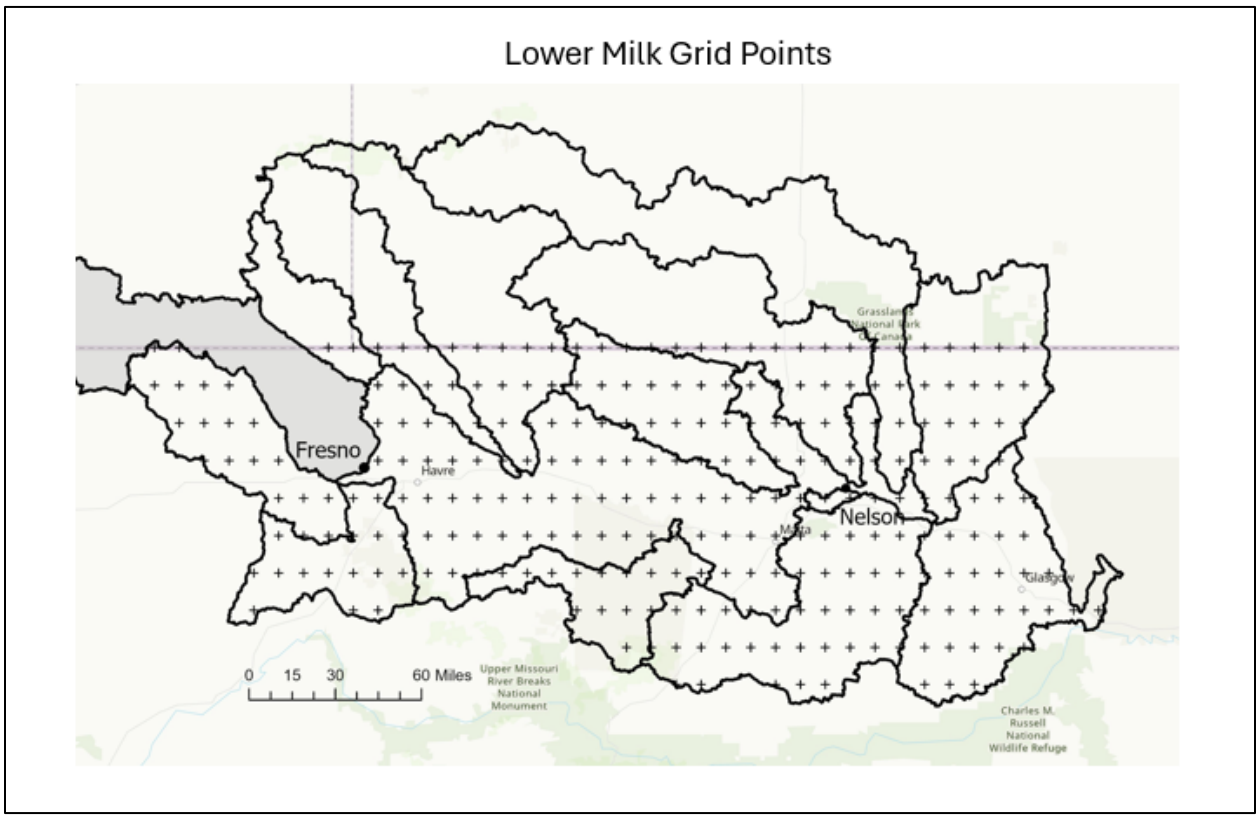
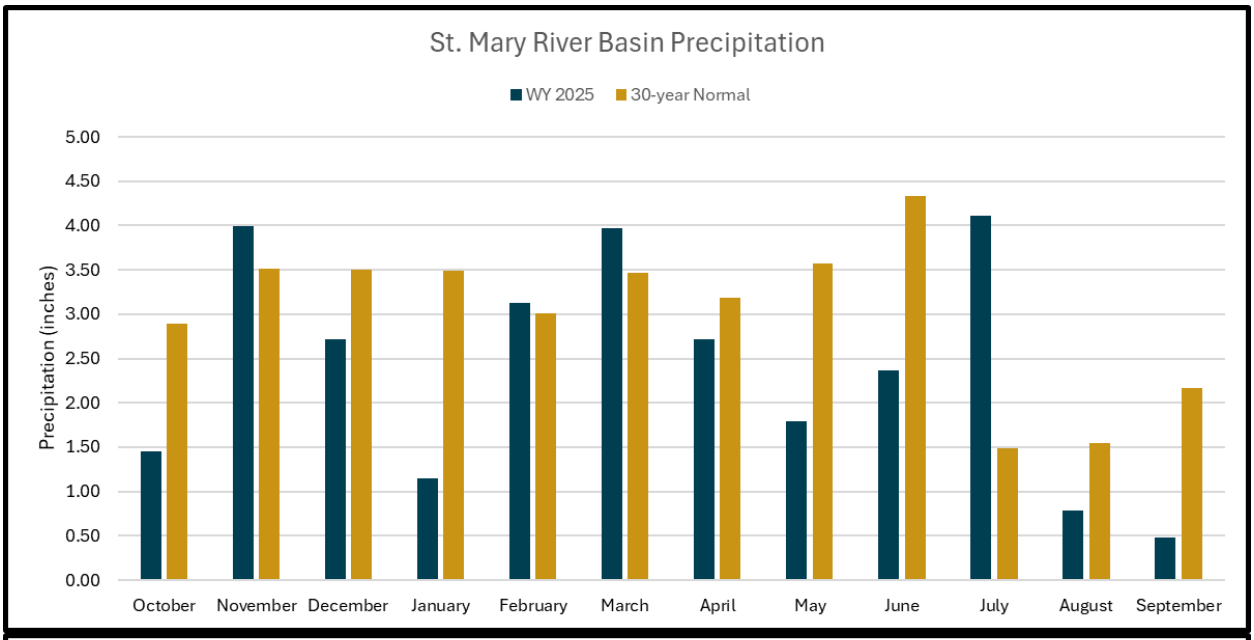


Figure MTG-37.—Grid spacing for precipitation data Lower Milk River Basin.

Table MTT-51.—WY2025 monthly precipitation for St. Mary and Milk River Basins

St. Mary	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	2.90		3.52		3.50		3.49		3.01		3.47		3.18		3.57		4.33		1.49		1.55		2.17	
Actual (in) and % of average	1.45	50	3.99	113	2.72	78	1.15	33	3.13	104	3.97	114	2.72	85	1.79	50	2.37	55	4.11	275	0.78	50	0.48	22
Year-to-date (in) and % of average	1.45	50	5.44	85	8.16	82	9.30	69	12.43	76	16.40	82	19.12	83	20.91	78	23.28	75	27.38	84	28.16	83	28.64	79
Upper Milk	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	0.97		0.81		0.64		0.67		0.60		0.78		1.30		2.01		3.04		1.29		1.21		1.25	
Actual (in) and % of average	0.20	20	0.84	104	0.48	75	0.59	89	0.65	108	0.52	67	0.86	66	1.41	70	2.46	81	2.61	202	1.92	159	0.17	13
Year-to-date (in) and % of average	0.20	20	1.04	58	1.52	63	2.11	68	2.76	75	3.28	73	4.15	72	5.56	71	8.01	74	10.62	88	12.55	94	12.71	87
Lower Milk	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.00		0.57		0.44		0.48		0.39		0.55		1.15		2.19		3.08		1.70		1.27		1.24	
Actual (in) and % of average	0.20	20	0.63	112	0.39	88	0.59	122	0.50	128	0.23	42	0.71	61	1.71	78	2.04	66	3.31	194	2.79	220	0.37	30
Year-to-date (in) and % of average	0.20	20	0.83	53	1.22	61	1.81	73	2.31	80	2.54	74	3.25	71	4.96	73	7.00	71	10.31	89	13.10	102	13.47	96



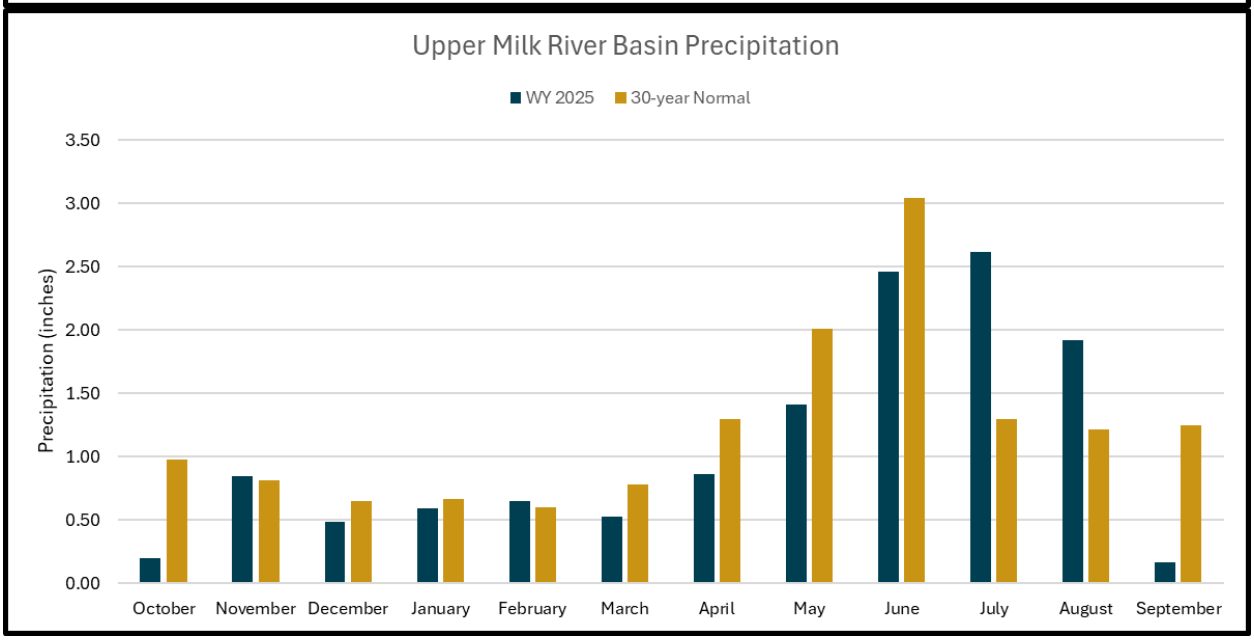


Figure MTG-38.—WY2025 monthly precipitation for St. Mary and Upper Milk River Basins.

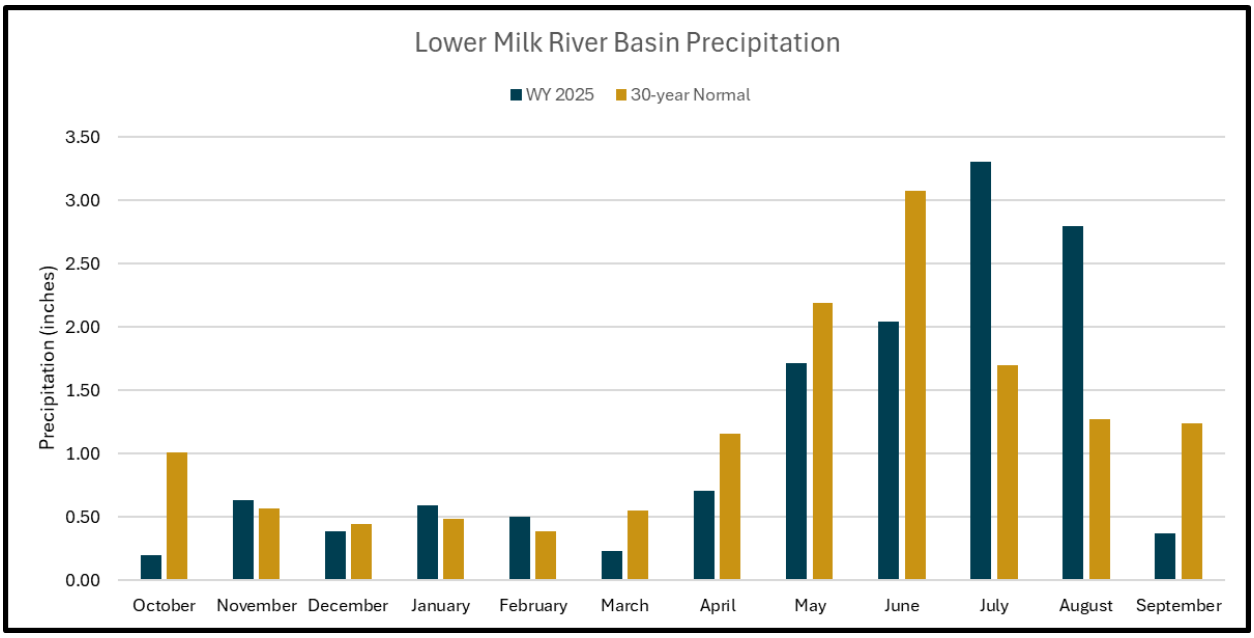


Figure MTG-39.—WY2025 monthly precipitation for Lower Milk River Basin.

Snowpack and Forecasts for Lake Sherburne

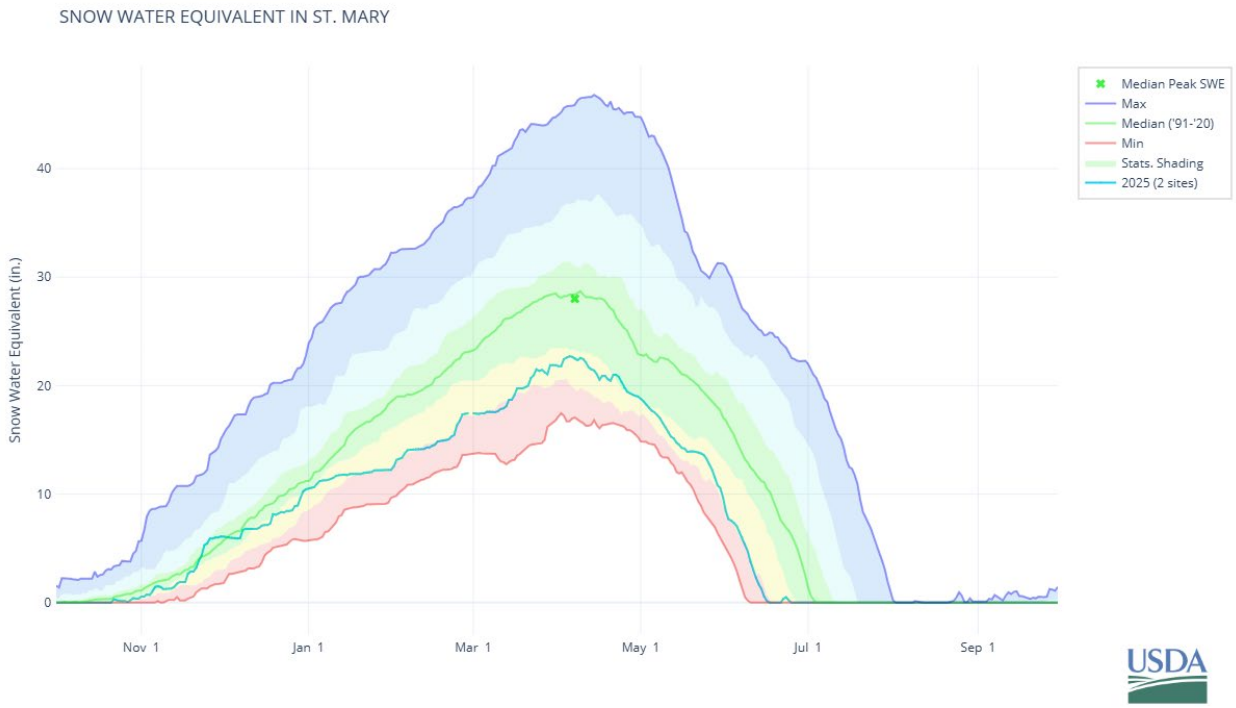


Figure MTG-40.—NRCS reported snowpack in St. Mary River Basin.

Table MTT-52.—2025 Lake Sherburne April–July inflow forecasts

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[1]	June 1[2]	July 1
Percent of Median SWE	94	67	75	77	82	50	-
Forecast, KAF	80	78	90	-	80	37	-
Forecast, percent of average	81	79	91	-	90	64	-
Observed April–July inflow	-	-	-	-	-	-	77
Percent of April 1 forecast	-	-	-	-	-	-	78

[1] Runoff forecast for May–July
[2] Runoff forecast for June–July

Table MTT-53.—2025 Fresno April–September inflow forecasts[1]

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[2]	June 1[3]	July
Forecast, KAF	37	34	42	36	39	18	-
Forecast, percent of average	33	30	38	32	-	-	-
Observed March–Sept. inflow	-	-	-	-	-	-	22
Percent of April 1 forecast	-	-	-	-	-	-	61

[1] Forecast provided by National Weather Service, Missouri Basin River Forecast Center
[2] Runoff forecast for May–September
[3] Runoff forecast for June–September

Bighorn Lake and Yellowtail Powerplant

Bighorn Lake is located on the Bighorn River about 45 miles southwest of Hardin, MT. The dam and reservoir were built for power generation, irrigation, flood control, fish and wildlife and recreation. Reclamation has a storage allocation agreement with the Northern Cheyenne Tribe for 30,000 AF and the Crow Tribe for up to 300,000 AF of water. Reclamation has an industrial water service contract with Talen Energy for 6,000 AF. Bull Lake, Boysen, and Buffalo Bill Reservoirs are three major tributary reservoirs located in Wyoming upstream of Bighorn Lake. These reservoirs are operated and managed by Reclamation's Wyoming Area Office (WYAO) and all reservoir and river operations in the Bighorn River Basin are closely coordinated between the MTAO and WYAO.

Figure MTG-41.—View of Yellowtail Dam and Powerplant.

Summary of WY2025 Operations

Yellowtail Dam operations during WY2025 were below average. Coming off a near average water year, the hydrologic conditions in the basin were near average at the start of WY2025. Snowpack peaked below average resulting in below average runoff. The largest influence on Yellowtail Dam operations during WY2025 was a large decrease in snowpack that occurred in May. See tables MTT-54 through 57 for specific data related to Bighorn Lake inflows, releases, and storage content.

October

Storage in Bighorn Lake started WY2025 at elevation 3632.8 ft or 106 percent of the 30-year average. Releases started off the year at 2,500 cfs. October was warmer and drier than average. Releases were decreased to 2,300 cfs based on the expected winter release.

November through February

Winter river releases are set during the early part of November based on established operating criteria. The release is based on current storage in Bighorn Lake, forecasted inflows and a March 31 elevation target of 3617 ft. The initial winter release for WY2025 was 2,210 cfs.

Releases were slightly adjusted during the winter months to stay on track with the end of March elevation target. No major changes were needed and by the end of February, river releases were 2,280 cfs while storage was at elevation 3618.2 ft.

March

On March 1, the operational focus shifts from March 31 to April 30 in accordance with established operating criteria. Snowpack conditions were near average for the basin, but the runoff forecast was well below average due to lower than average storage in Boysen and Buffalo Bill reservoirs. The storage target for April 30 was 3617.5 ft based on the March 1 April through July inflow forecast of 689,000 AF, 54 percent of average.

Climate conditions were mostly wetter than average in the basin during March. River releases remained at 2,280 cfs during March. Storage decreased as planned throughout the month to elevation 3617.3 ft on March 31.

April through June

The April 1 April through July inflow forecast increased to 795,000 AF as snowpack was slightly above average. Under this forecast, Bighorn Lake was expected to fill to normal full pool, 3640 ft. Releases were decreased to 2,000 cfs during April based on rule curve criteria. Releases were increased to 2,230 cfs between April 14–16 to accommodate Montana Fish Wildlife and Parks fish sampling efforts. Snowpack peaked near average on April 6 at 96 percent of median in the Bighorn Basin. Storage decreased to a minimum of the year of 3615.6 ft on April 17. April precipitation was a mix with some areas being drier and other areas being wetter than average. Storage in Bighorn Lake ended the month at 3620.0 ft, 108 percent of average.

The May 1 forecast was lower at 57 percent of average due to snowpack peaking lower than normal and 2.3 inches of SWE melting out in the middle of April. The climate during May was warm and a mix of some areas being drier and other areas being wetter than average. Releases were increased to 3,000 cfs by mid-May and to 3,500 cfs by the end of the month based on storage in Bighorn Lake and observed inflows being higher than forecasted. Inflows increased to a maximum of the year of 6,987 cfs on May 14, which was a month earlier than the average date of annual maximum inflow due to warmer than average temperatures in the basin. The reservoir was at elevation 3629.6 ft on May 31.

The June 1 forecast was also lower at 47 percent of average. June was mostly warmer and drier than average. Releases were decreased to 2,250 cfs due to the lower observed and forecasted inflows. Snowpack at the SNOTEL in the Bighorn Basin melted out by June 17. Storage peaked for the year on June 26 at elevation 3634.0 ft or 937,129 AF.

July through September

Releases were decreased to 2,130 cfs in early July and to 2,000 cfs by mid-July based on observed and forecasted inflows. Releases were decreased to 1,500 cfs between July 28–29 to assist a search and rescue operation on the Bighorn River. Releases remained at 2,000 cfs for the remainder of WY2025. Storage ended WY2025 at elevation 3628.68 ft, 884,356 AF, 100 percent of average.

Total generation produced at Yellowtail Powerplant during WY2025 was 583,999 megawatt-hours, 75 percent of average. All water released from Yellowtail Dam during WY2025 was released through the powerplant.

The reservoirs in the Bighorn River Basin ended the water year lower than the year before. With the forecasted releases from Boysen and Buffalo Bill, winter releases were set in November 2025 at 2,050 cfs.

Important Events – WY2025

May 28, 2025: The Bighorn Canal was started for the irrigation season.

July 28-20, 2025: Releases were decreased to 1,500 cfs to assist with the search for a missing person on the river.

September 29, 2025: The Bighorn Canal was shut down for the irrigation season.

For more detailed information on the operations of Boysen and Buffalo Bill Reservoirs during WY2025, refer to the narratives for Boysen Reservoir and Powerplant and Shoshone Project under the responsibility of the WYAO.

WY2025 data for Bighorn Lake

Table MTT-54.—Reservoir allocations for Bighorn Reservoir*

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	3,547.00	467,473	467,473
Top of active conservation	3,614.00	778,317	310,844
Top of joint use	3,640.00	1,011,052	232,735
Top of exclusive flood control	3,657.00	1,263,682	252,630

* 2017 reservoir survey and revised area-capacity table was implemented on October 1, 2020.

Table MTT-55.—Storage and elevation data for Bighorn Reservoir

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	3,632.80	924,206	10/1/2024
End of year	3,628.68	884,356	9/30/2025
Annual low	3,615.62	788,166	4/16/2025
Annual high	3,634.00	937,129	6/26/2025
Historic high	3,656.36	1,363,994	7/6/1967

Table MTT-56.—Inflow and discharge data for Bighorn Reservoir

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Annual total (AF)	1,642,786	10/1/2024–9/30/2025	1,642,928*	10/1/2024–9/30/2025
Daily peak (cfs)	6,987	5/14/2025	3,626*	5/30/2025
Daily minimum (cfs)	244	1/21/2025	1,830*	11/24/2024

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Peak spill (cfs)			---	---
Total spill (KAF)			---	---

* Discharge to the Bighorn River

Table MTT-57.—WY2025 monthly inflow, outflow, and storage data for Bighorn Lake

Month	Inflow, KAF	Percent of 30-yr avg	Outflow to canal, KAF	Percent of 30-yr avg	Outflow to river, KAF	Percent of 30-yr avg	Content, KAF	Percent of 30-yr avg
October	141.0	84	0.0	0	145.0	90	923.7	104
November	108.4	86	0.0	0	133.5	92	903.2	103
December	102.9	96	0.0	0	133.6	90	876.7	104
January	94.1	87	0.0	0	137.8	91	836.7	103
February	89.8	79	0.0	0	126.0	87	804.3	102
March	129.9	82	0.0	0	139.7	77	798.7	103
April	139.4	75	0.0	0	125.7	60	816.9	108
May	242.5	77	0.6	6	169.8	72	892.8	110
June	214.0	43	17.8	87	159.1	47	934.1	99
July	118.7	42	25.6	95	129.8	46	901.9	99
August	112.0	70	28.0	106	124.0	70	866.1	99
September	150.1	90	17.1	109	119.0	77	884.4	100
Annual	1,642.8	69	89.2	86	1,642.9	71		
April–July	714.6	56						

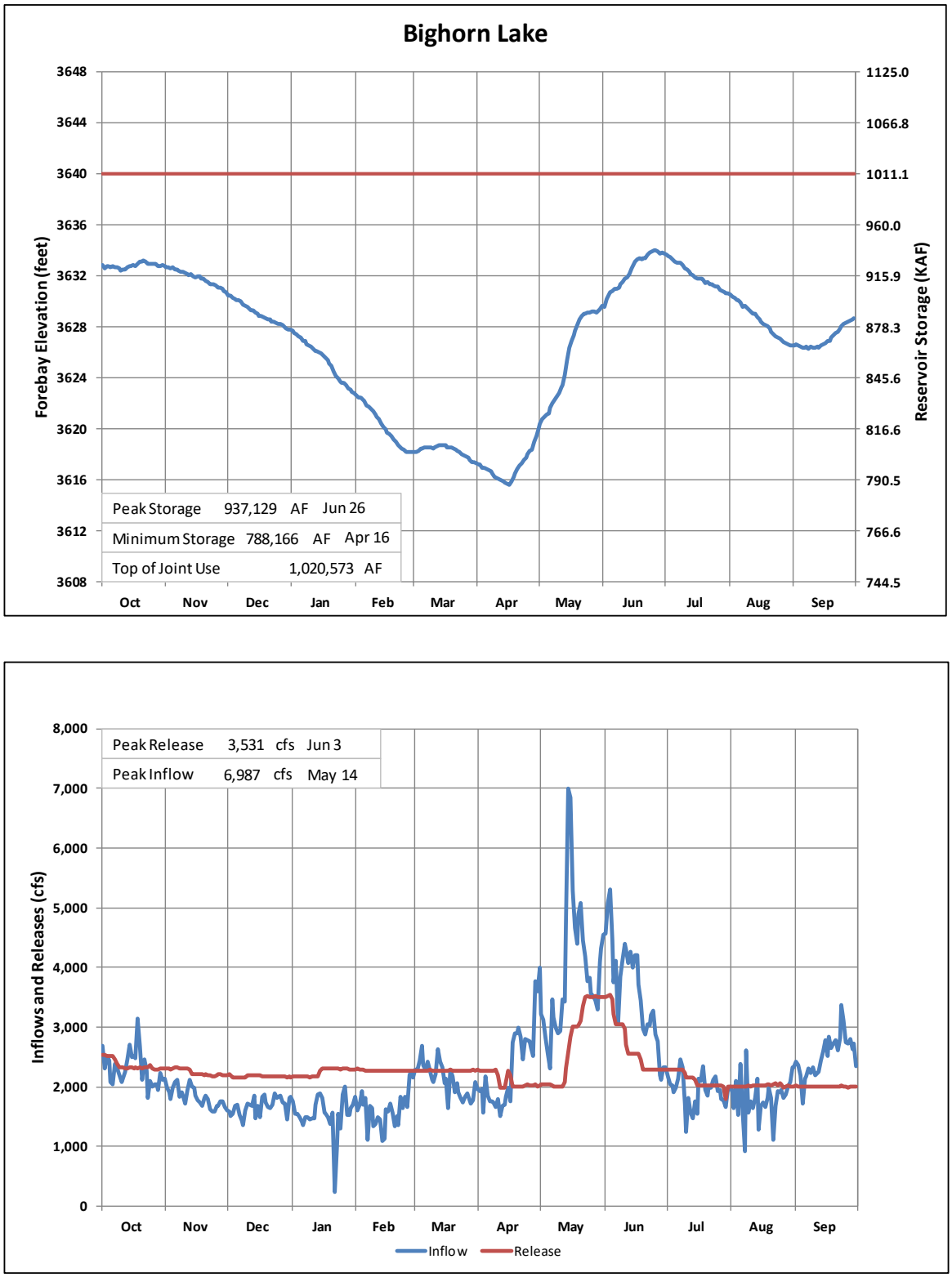


Figure MTG-42.—WY2025 hydrologic data for Bighorn Lake.

Precipitation for Bighorn River Basin

Precipitation data comes from an online weather database, https://prism.oregonstate.edu/explorer/bulk.php. PRISM outputs the monthly observed and 30-year average precipitation for selected coordinate points. Grid point elevations delineated mountain and valley regions within the watershed. The valley/mountain elevation boundary was set at 7000 ft based on the watershed's lowest SNOTEL station, Sylvan Road at 7100 ft.

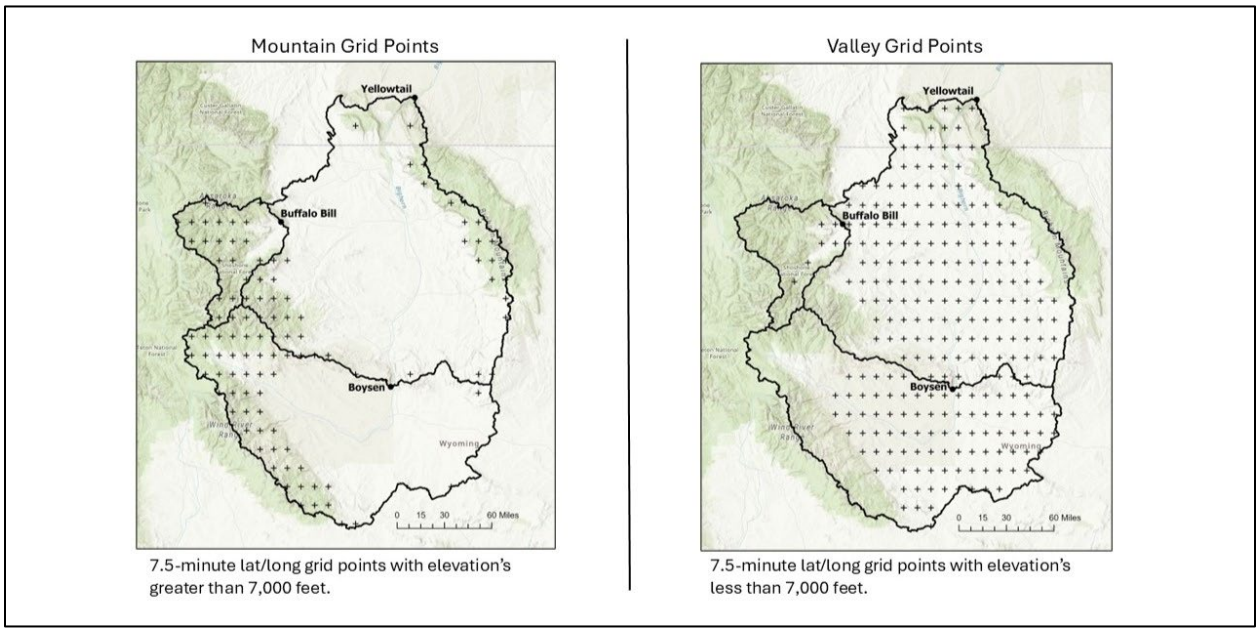
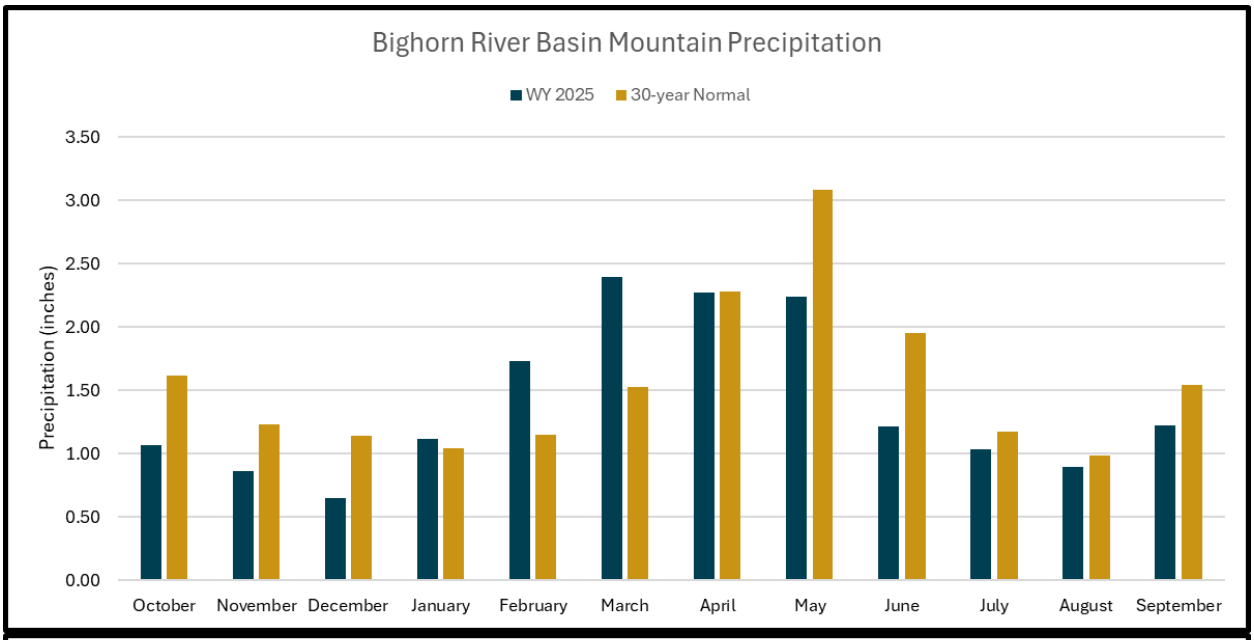


Figure MTG-43.—Grid spacing for mountain and valley precipitation data for Bighorn River Basin.

Table MTT-58.—WY2025 monthly precipitation for Bighorn River Basin

Bighorn - Mountain	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.62		1.23		1.14		1.04		1.15		1.52		2.28		3.08		1.95		1.18		0.99		1.54	
Actual (in) and % of average	1.06	66	0.87	70	0.65	56	1.12	108	1.73	151	2.40	157	2.27	99	2.24	73	1.22	62	1.03	88	0.90	91	1.23	80
Year-to-date (in) and % of average	1.06	66	1.93	68	2.57	65	3.69	73	5.43	88	7.82	102	10.09	101	12.33	94	13.55	90	14.58	90	15.48	90	16.70	89

Bighorn - Valley	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP	
30-year average (inches)	1.16		0.61		0.52		0.45		0.55		0.85		1.49		2.34		1.43		0.89		0.67		1.13	
Actual (in) and % of average	0.93	80	0.37	60	0.20	39	0.61	134	0.48	87	1.38	162	1.54	104	2.06	88	1.07	75	0.98	110	0.70	105	0.96	85
Year-to-date (in) and % of average	0.93	80	1.29	73	1.49	65	2.10	76	2.58	78	3.96	95	5.50	98	7.56	95	8.64	92	9.62	93	10.32	94	11.28	93



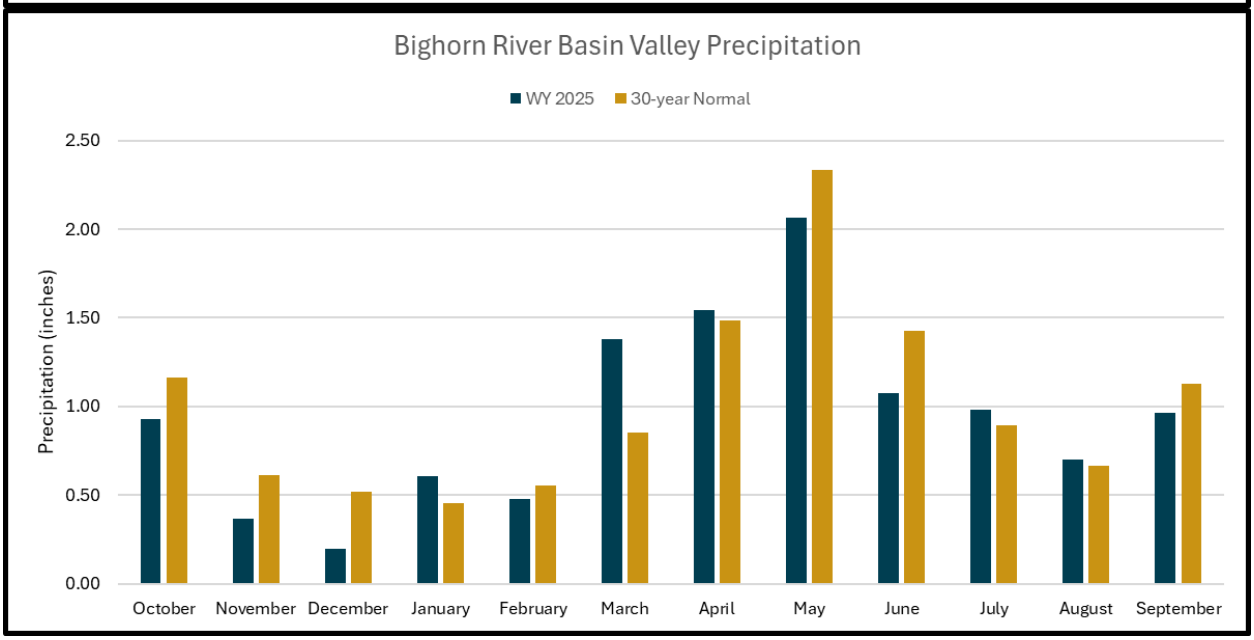


Figure MTG-44.—WY2025 monthly precipitation in the valley and mountains for Bighorn River Basin.

Snowpack and Forecasts for Bighorn Lake

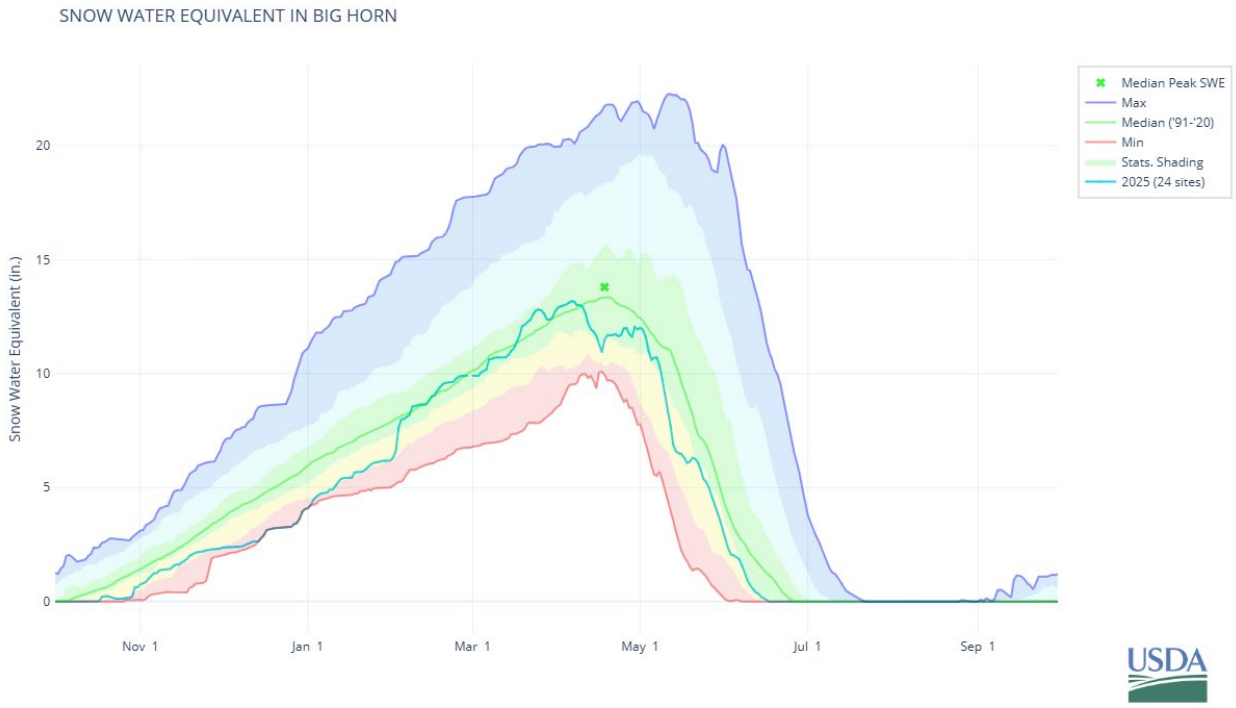


Figure MTG-45.—NRCS reported snowpack in Bighorn River Basin.

Table MTT-59.—2025 Bighorn Lake April–July inflow forecasts

	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1[1]	June 1[2]	July 1
Percent of median SWE	69	80	98	103	96	66	-
Forecast, KAF	582	704	689	795	623	370	-
Forecast, percent of average	45	55	54	62	57	47	-
Observed April–July inflow	-	-	-	-	-	-	715
Percent of April 1 forecast	-	-	-	-	-	-	56

[1] Runoff forecast for May–July
[2] Runoff forecast for June–July

Summary of Operations and Annual Operating Plan for Water Year 2025

Missouri Basin and Arkansas-Rio Grande-Texas Gulf Regions Weather Summary for North Dakota, South Dakota and Northeastern Wyoming

Summary for North Dakota, South Dakota and Northeastern Wyoming

Total annual precipitation for Reclamation facilities in North Dakota, South Dakota, and northeastern Wyoming is shown in table DKT-1.

October

Precipitation was about average at Keyhole reservoir, below average at Belle Fourche, Deerfield and Shadehill reservoirs and well below average at Angostura, Dickinson, Heart Butte, Jamestown and Pactola Reservoirs.

November

Precipitation was well above average at Jamestown Reservoir, above average at Deerfield and Pactola reservoirs, about average at Angostura reservoir, below average at Dickinson and Heart Butte reservoirs and well below average at Belle Fourche, Keyhole and Shadehill Reservoirs.

December

Precipitation was above average at Deerfield and Jamestown Reservoirs, about average at Belle Fourche reservoir, below average at Dickinson, Keyhole and Pactola Reservoirs and well below average at Angostura, Heart Butte and Shadehill Reservoirs.

January

Precipitation was well above average at Deerfield Reservoir, above average at Keyhole Reservoir, about average at Pactola Reservoir, below average at Angostura, Belle Fourche, Dickinson, Heart Butte and Shadehill Reservoirs and well below average at Jamestown Reservoir.

February

Precipitation was well above average at Dickinson reservoir, above average at Deerfield reservoir, below average at Angostura, Heart Butte, Jamestown, Pactola and Shadehill reservoirs and well below average at Belle Fourche and Keyhole reservoirs.

March

Precipitation was above average at Keyhole reservoir, below average at Belle Fourche and Pactola reservoirs and well below average at Angostura, Deerfield, Dickinson, Heart Butte, Jamestown and Shadehill reservoirs.

April

Precipitation was well above average at Jamestown and Shadehill reservoirs, above average at Dickinson reservoir, about average at Belle Fourche and Keyhole reservoirs, below average at Angostura, Deerfield and Pactola reservoirs and well below average at Heart Butte reservoir.

May

Precipitation was well above average at Dickinson, Heart Butte and Shadehill reservoirs, about average at Angostura reservoir and below average at Belle Fourche, Deerfield, Jamestown, Keyhole and Pactola reservoirs.

June

Precipitation was above average at Belle Fourche, Heart Butte and Shadehill reservoirs, about average at Dickinson reservoir and below average at Angostura, Deerfield, Jamestown, Keyhole and Pactola reservoirs.

July

Precipitation was well above average at Belle Fourche, Deerfield, Dickinson and Pactola reservoirs, above average at Heart Butte and Shadehill reservoirs and below average at Angostura, Jamestown and Keyhole reservoirs.

August

Precipitation was well above average at Belle Fourche, Deerfield and Pactola reservoirs, above average at Dickinson and Jamestown reservoirs, about average at Heart Butte and Shadehill reservoirs and well below average at Angostura and Keyhole reservoirs.

September

Precipitation was about average at Heart Butte reservoir, below average at Angostura, Belle Fourche, Deerfield, Dickinson, Jamestown, Pactola and Shadehill reservoirs and well below average at Keyhole reservoir.

Table DKT-1.—Total Annual Precipitation for Reclamation Reservoirs in North Dakota, South Dakota, and Northeastern Wyoming in inches

Reservoir	2025 Total	Average Total	Percent
Dickinson	20.11	17.35	116
Heart Butte	18.16	16.79	108
Jamestown	17.54	19.84	88
Angostura[1]	11.57	17.67	65
Belle Fourche[2]	19.66	15.86	124
Deerfield[3]	19.82	14.38	138
Keyhole[4]	13.35	19.20	70
Pactola	22.14	20.58	108
Shadehill[5]	21.99	17.86	123

[1] Angostura Reservoir's annual precipitation data is from the Hot Springs, SD, climate station.
[2] Belle Fourche Reservoir's annual precipitation data is from the Newell, SD climate station.
[3] Deerfield reservoir's annual and average precipitation data is from the Deerfield Dam flip bucket rain gauge recorded by Hydromet.
[4] Keyhole Reservoir's annual precipitation data is from the Sundance, WY climate station.
[5] Shadehill Reservoir's annual precipitation data is from the Lemmon, SD climate station.

Table DKT-2.—Comparison of End-of-Water-Year Storage Content for Reservoirs in North Dakota, South Dakota, and Northeastern Wyoming in AF

Reservoir	Storage September 30, 2024	Storage September 30,2025	Change in Storage
Dickinson	6084	6219	135
Heart Butte	55,081	55,680	599
Jamestown	29,340	27,241	-2099
Angostura	80,277	61,437	-18,840
Belle Fourche	80,141	116,339	36,198
Deerfield	14,665	14,603	-62
Keyhole	111,977	111,308	-669
Pactola	49,922	47,947	-1975
Shadehill	80,608	100,904	20,296

Flood Damage Prevented for North Dakota, South Dakota and Northeastern Wyoming

Two Bureau of Reclamation reservoirs in North Dakota and one in South Dakota provided flood relief during WY2025.

The information on the distribution of flood damages prevented is provided by the USACE. The distributions of flood damages prevented for each reservoir are as follows:

Table DKT-3.—Flood Damage Prevented In 2025 and Accumulated Total 19502025, Adjusted and Unadjusted

Reservoir	Local	Mainstem	2025 Total	1950–2025 Accumulation Totals (Unadjusted)	1950–2025 Accumulation Totals (Adjusted)[1]
Angostura	$0	$0	$0	$22,900	$168,300
Keyhole	$0	$0	$0	$5,064,000	$15,889,500
Pactola	$0	$0	$0	$4,993,900	$16,183,600
Shadehill	$0	$2900	$2900	$14,473,300	$138,991,900
Heart Butte	$0	$17,900	$17,900	$21,161,200	$188,912,200
Jamestown	$4,920,500	$0	$4,920,500	$276,064,600	$566,800,800
Total[2]	$4,920,500	$20,800	$4,941,300	$321,779,900	$926,946,300

[1] Adjusted for inflation with the Building Cost Index (BCI)

[2] Flood damages prevented by Dakotas Area Office reservoirs between Garrison and Gavins Point Dams are shown on figure DKG-1

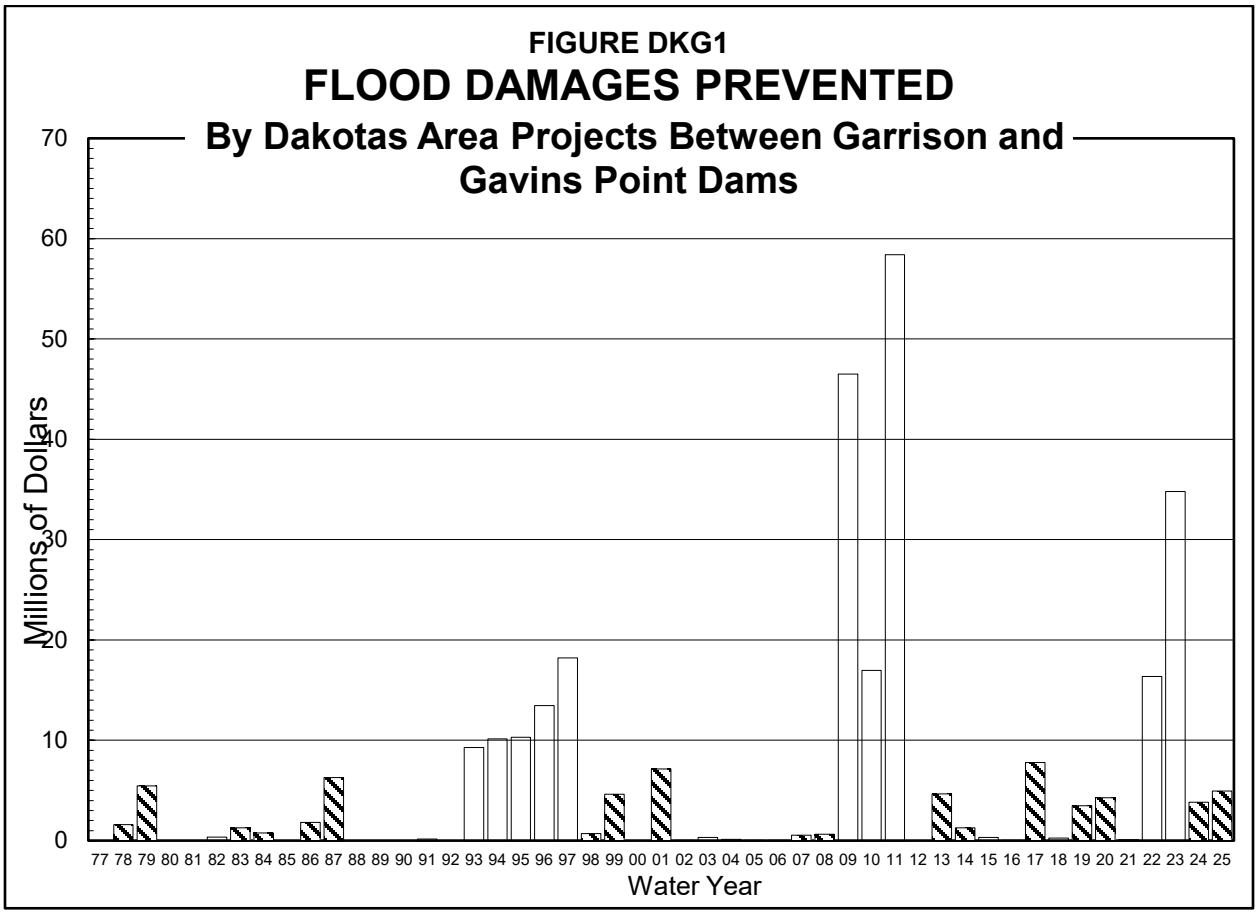


Figure DKG-1.—Flood damages prevented between Garrison and Gavins Point Dams.

Unit Operational Summaries for Water Year 2025

Dickinson Reservoir (E.A. Patterson Lake)

Background

Dickinson Dam is located on the Heart River 1 mile west of Dickinson, ND. The reservoir has a dead capacity of 349 AF, an inactive capacity of 89 AF and an active conservation capacity of 8,041 AF (for a total storage capacity of 8,479 AF at the top of conservation elevation 2420 ft). Reservoir water is used for irrigating approximately 230 acres along the Heart River downstream from the dam and for municipal use by the Dickinson Parks and Recreation District.

Operations Plan

The reservoir is normally operated as full as possible at all times. Excess water is released by spilling over the Bascule gate after the reservoir has filled and by gated releases through the 24-inch river outlet valve. No releases are generally planned until irrigation water is required or if the spring runoff volume requires flood releases.

Operations Summary

An Internal Alert was declared at Dickinson Dam on May 18, 2025, due to a reservoir elevation above the spillway crest at 2420.0 ft. It was terminated on June 4, 2025.

An Internal Alert was declared at Dickinson Dam on July 28, 2025, due to a reservoir elevation above the spillway crest at 2420.0 ft. It was terminated on August 14, 2025.

An Emergency Action Plan orientation, communications drill and tabletop exercise (TTX) was conducted on June 5, 2025.

An Annual Site Inspection (ASI) was performed on July 30, 2025.

Work at the dam included a hydraulic pump replacement and a slide gate stem support replacement. No major construction contracts were awarded in WY2025.

124.75 AF of water was released for Dickinson Parks and Recreation.

Monthly Statistics

In relation to data from 74 years of recordkeeping, the following monthly records or near-records were documented:

E.A. Patterson Lake had its 3rd highest October inflow and its 8th highest August inflow.

No record or near-record end-of-month content was documented.

Additional statistical information on E.A. Patterson Lake and its operations during WY2025 can be found in table DKT-3 and figure DKG-2.

Table DKT-4.—Hydrological data for Dickinson Reservoir WY2025

Reservoir Allocations	Elevation(ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	2405.00	438	438
Top of active conservation	2420.00	8479	8041
Top of surcharge	2430.60	26,462	17,983
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	2417.75	6,065	Oct 01, 2024
End of year	2417.91	6,219	Sep 30, 2025
Annual low	2417.50	5,830	Nov 02, 2024
Annual high	2420.55	9,152	May 19/21, 2025
Historic high	2422.19	*9,348	Mar 21, 1997

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	241.33	May 20, 2025	253.93	May 20, 2025
Daily minimum (cfs)	-37.81	Nov 20, 2024	0	**

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	-242	-39	3	0	5,839	104
November	47	27	0	0	5,886	106
December	132	93	0	0	6,018	109
January	76	27	0	0	6,094	108
February	1,041	97	0	0	7,135	119
March	457	7	0	0	7,592	108
April	119	3	30	1	7,681	106
May	3,479	147	2,645	107	8,515	118
June	533	24	1,322	59	7,726	108
July	1,696	200	943	69	8,479	128
August	1,001	310	2,875	370	6,605	108
September	-146	-114	240	59	6,219	106
Annual	8,193	42	8,058	42		111
April–July	5,827	59	4,940	48		115

* Due to new area-capacity table, the capacity that corresponds to the new historic high elevation is less than a previous historic high-capacity amount (11,520 AF at elevation 2421.08 ft on June 9, 1982)
** Frequently observed during fall, winter and spring months

Dickinson Reservoir

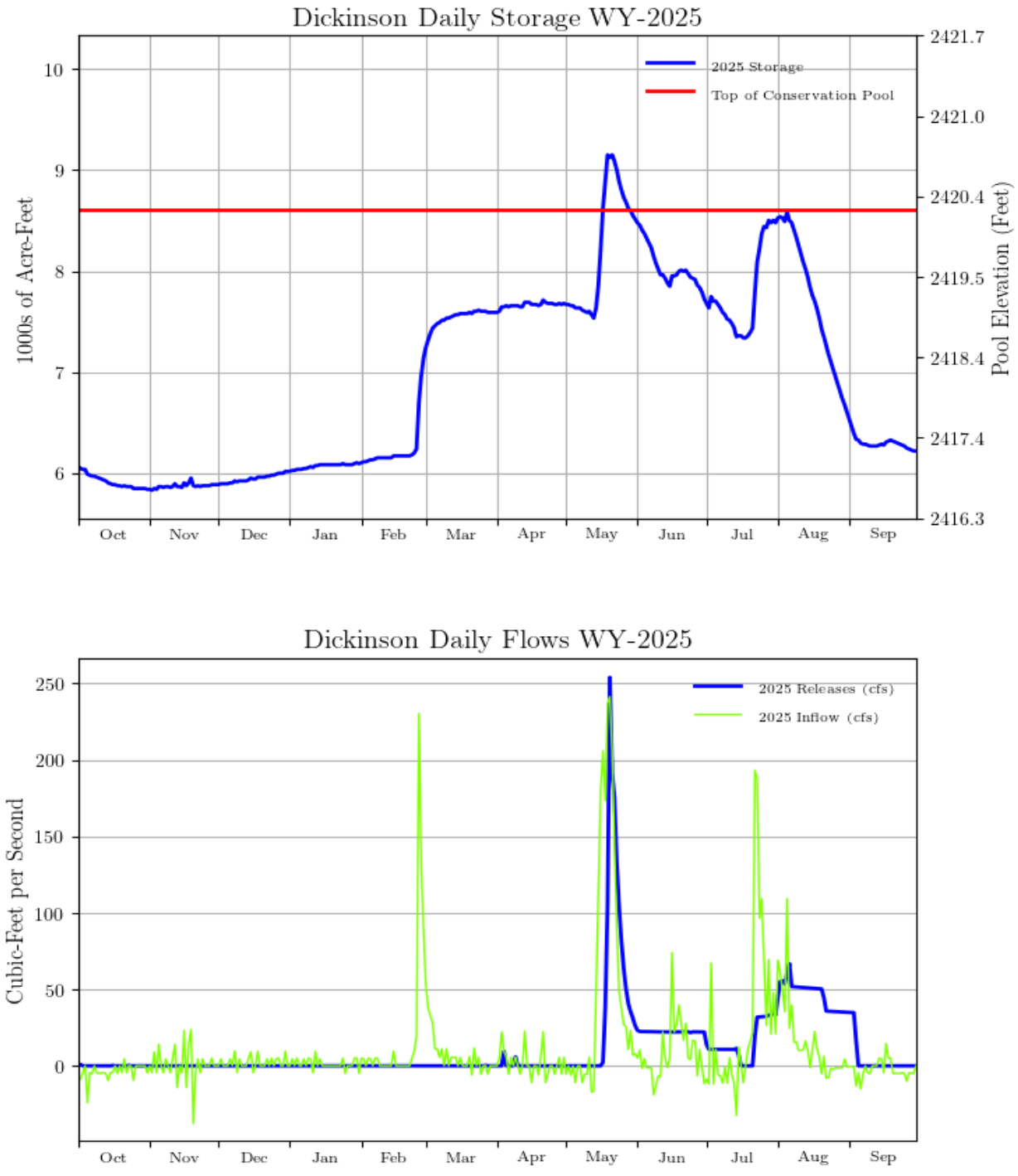


Figure DKG-2.—Dickinson Reservoir daily storage and daily flows for WY2025.

Heart Butte Reservoir (Lake Tschida)

Background

Heart Butte Dam is located on the Heart River 15 miles south of Glen Ullin, ND. The reservoir has a dead storage capacity of 4328 AF, an active conservation capacity of 60,763 AF (for a total storage capacity of 65,091 AF at the top of active conservation elevation 2064.5 ft), and an exclusive flood control space of 147,605 AF. Flood control storage is located above the crest of an ungated morning glory inlet spillway. Heart Butte Reservoir is primarily used for flood control and the authorized irrigation of up to 13,100 acres, of which about 7,767 acres are now being irrigated.

Operations Plan

Since there are no accurate inflow forecasts available, the reservoir is operated as close to the top of the conservation pool as possible while regulating required releases, maintaining downstream conservation commitments, and preserving flood control space. During winter months, and when the reservoir level is below the spillway crest at elevation 2064.5 ft, the river releases are maintained at about 10 cfs to ensure a live stream flow below Heart Butte Dam. This continues through the winter until the spring runoff requires higher releases, often in late March or early April. Excess water is released only when the reservoir is full or forecasted to fill.

Operations Summary

An Internal Alert was declared at Heart Butte Dam on May 21, 2025, due to a reservoir elevation above the base of the flood pool at 2064.5 ft. It was terminated on May 30, 2025.

An Internal Alert was declared at Heart Butte Dam on June 1, 2025, due to a reservoir elevation above the base of the flood pool at 2064.5 ft. It was terminated on June 10, 2025.

Heart Butte Dam has remained in Internal Alert since 2013 due to sediment transport into the conduit and a boil downstream from the dam.

An Emergency Action Plan orientation, communications drill and tabletop exercise (TTX) was held on June 11, 2025.

An Annual Site Inspection (ASI) was performed on July 29, 2025.

No major construction contracts were awarded in WY2025.

Final Design of a Safety of Dams modification project is underway to reduce the risk of internal erosion failure.

From July 10, 2025 to September 12, 2025, 3,940 AF of water was released for irrigation.

Monthly Statistics

In relation to data from 76 years of recordkeeping, the following monthly records or near-records were documented:

Lake Tschida had its 7th lowest October inflow, its 8th highest December inflow, its 9th lowest April inflow and its 10th highest August inflow.

No record or near-record end-of-month content was documented.

Additional statistical information on Lake Tschida and its operations during WY2025 can be found in table DKT-5 and figure DKG-3.

Table DKT-5.—Hydrological data for Heart Butte Reservoir WY2025

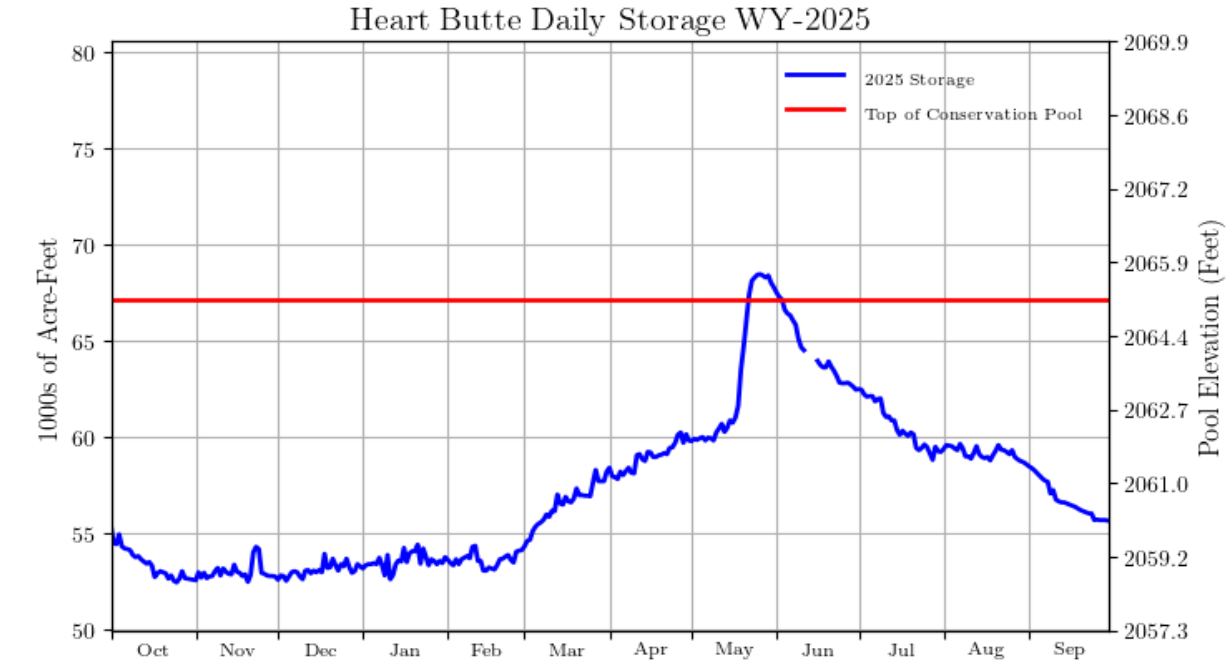
Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of dead	2030.00	4328	4328
Top of active conservation	2064.50	65,091	60,763
Top of exclusive flood control	2094.50	212,696	147,605
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	2061.25	55,423	Oct 01, 2024
End of year	2061.34	55,680	Sep 30, 2025
Annual low	2060.20	52,470	Oct 25, 2024
Annual high	2065.53	68,478	May 26, 2025
Historic high	2086.23	173,203	Apr 09, 1952

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	988.28	May 19, 2025	314.92	Jun 21, 2025
Daily minimum (cfs)	-623.83	Jan 11, 2025	0	*

Month	Inflow		Outflow		Content	
	AF	% of avg	AF	% of avg	AF	% of avg
October	-692	-44	1,881	82	52,609	91
November	711	53	544	38	52,776	91
December	1,874	191	608	47	53,306	93
January	1,100	94	624	54	53,782	94
February	1,008	28	642	31	54,148	92
March	4,199	15	125	1	58,222	84
April	1,619	7	0	0	59,841	87
May	13,007	129	5,051	47	67,797	99
June	4,466	46	9,499	104	62,479	90
July	1,612	39	4,841	64	59,250	91
August	4,660	283	5,278	97	58,632	95
September	909	139	3,861	130	55,680	94
Annual	34,473	40	32,853	38		92
April–July	20,704	43	19,391	37		92

* Frequently observed during fall and spring months

Heart Butte Reservoir



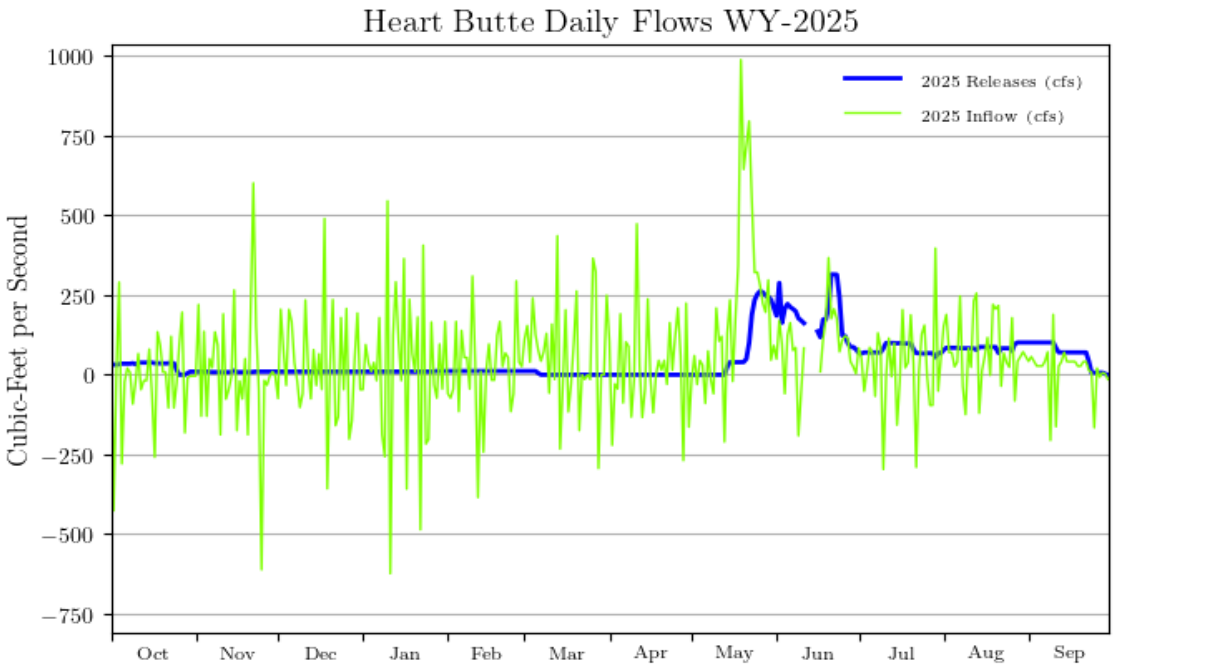


Figure DKG-3.—Heart Butte daily storage and daily flows for WY2025.

Jamestown Reservoir

Background

Jamestown Dam is located on the James River just above the city of Jamestown, ND. The reservoir has a dead capacity of 292 AF, an active conservation capacity of 23,934 AF (for a total top of active conservation capacity of 24,226 AF at elevation 1428 ft), a joint-use capacity of 6262 AF, and an exclusive flood control space of 190,502 AF. Exclusive flood control storage is located below the crest of an ungated morning glory inlet spillway and flood control releases are controlled by two gated outlets. The joint-use space is available for flood control at the beginning of spring runoff and is used for conservation purposes during the summer months.

Operations Plan

Water releases are managed by Reclamation under the base of the exclusive flood control pool at 1430.0 ft. and by the USACE above that mark. The reservoir is normally operated under the following criteria and limitations set forth in the Field Working Agreement between USACE and Reclamation that reads:

Flood Control Regulation of Joint-Use Pool
The joint-use space between elevations 1428 ft and 1431 ft is used for seasonal multipurpose regulation. For purposes of flood control storage, the reservoir water elevation is held to no higher than 1429.8 ft at the beginning of spring runoff period. That portion of the joint-use pool between elevations 1429.8 ft and 1431.0 ft will be used for storage and regulation of the spring runoff and summer rainstorms. In addition, water stored in this zone may be used during the summer months for conservation purposes. Storage remaining in the joint-use pool above elevation 1429.8 ft after September 1 will be evacuated as directed by the USACE.

Reclamation has the option of lowering the reservoir below elevation 1429.8 ft should it be desirable based on water supply needs. There are no requirements for maintaining a specified minimum reservoir release.

Season: Beginning of Spring Runoff to September 1
El. 1429.8 ft (Base of flood control zone) to El. 1431 ft (Top of Joint Use Pool)

Release greater of:

Conservation releases, or

Based on inflows occurring at the time and the existing potential for further inflows, releases will be maintained as necessary to result in a pool elevation of 1431 ft at the time inflows cease.

Season: September 1 to November 1
Make releases necessary to evacuate reservoir to elevation 1429.8 ft prior to November 1.

Season: November 1 to Beginning of Spring Runoff
Make releases necessary to maintain elevation 1429.8 ft.

Operations Summary

An Internal Alert was declared at Jamestown Dam on April 13, 2025, due to a reservoir elevation above the base of the flood pool at 1431.0 ft. It was terminated on May 12, 2025.

An Internal Alert was declared at Jamestown Dam on May 21, 2025, due to a reservoir elevation above the base of the flood pool at 1431.0 ft. It was terminated on June 10, 2025.

An Internal Alert was declared at Jamestown Dam on June 30, 2025, due to a reservoir elevation above the base of the flood pool at 1431.0 ft. It was terminated on August 25, 2025.

An Emergency Action Plan orientation and communications drill was conducted on April 8, 2025.

An Annual Site Inspection (ASI) was performed on September 3, 2025.

No major construction contracts were awarded in WY2025.

The air release valves in the gate house were both replaced by new Val-Matic air vacuum valves.

Routine relief well cleaning was performed twice, once in the spring and once in the fall, by the Garrison Diversion Conservation District (GDCD).

No water was released specifically for downstream irrigation.

Monthly Statistics

In relation to data from 72 years of recordkeeping, the following monthly records or near-records were documented:

Jamestown Reservoir had its 9th highest October inflow, its 7th highest November inflow, its 7th highest July inflow, its 3rd highest August inflow and its 5th highest September inflow.

No record or near-record end-of-month content was documented.

Additional statistical information on Jamestown Reservoir and its operations during WY2025 can be found in table DKT-6 and figure DKG-4.

Table DKT-6.—Hydrological Data for Jamestown Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of dead	1400.00	292	292
Top of active conservation	1428.00	24,226	23,934
Top of joint use	1431.00	30,488	6262
Top of exclusive flood control	1454.00	220,990	190,502

Storage-Elevation Data	Elevation (ft)	Storage (AF)	Date
Beginning of year	1430.40	29,116	Oct 01, 2024
End of year	1429.53	27,241	Sep 30, 2025
Annual low	1429.13	26,421	Dec 27, 2024
Annual high	1432.14	33,276	Aug 08, 2025
Historic high	1454.10	222,318	Apr 26, 2009

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	784.03	Aug 06, 2025	505.49	Aug 08, 2025
Daily minimum (cfs)	-460.01	Jun 21, 2024	0	*

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	5,166	197	7,098	180	27,408	104
November	3,086	181	3,149	153	27,345	105
December	1,312	195	2,155	282	26,502	103
January	227	91	187	35	26,542	104
February	430	103	0	0	26,972	106
March	1,265	20	0	0	28,237	92
April	8,776	35	4,016	43	32,997	71
May	8,694	73	10,944	67	30,747	73
June	6,485	132	6,438	56	30,794	87
July	12,525	266	10,824	141	32,495	100
August	21,874	527	24,758	466	29,611	95
September	7,461	467	9,831	201	27,241	97
Annual	77,301	121	79,400	125		92
April–July	36,480	79	32,222	72		81

* Frequently observed during winter and spring months

Jamestown Reservoir

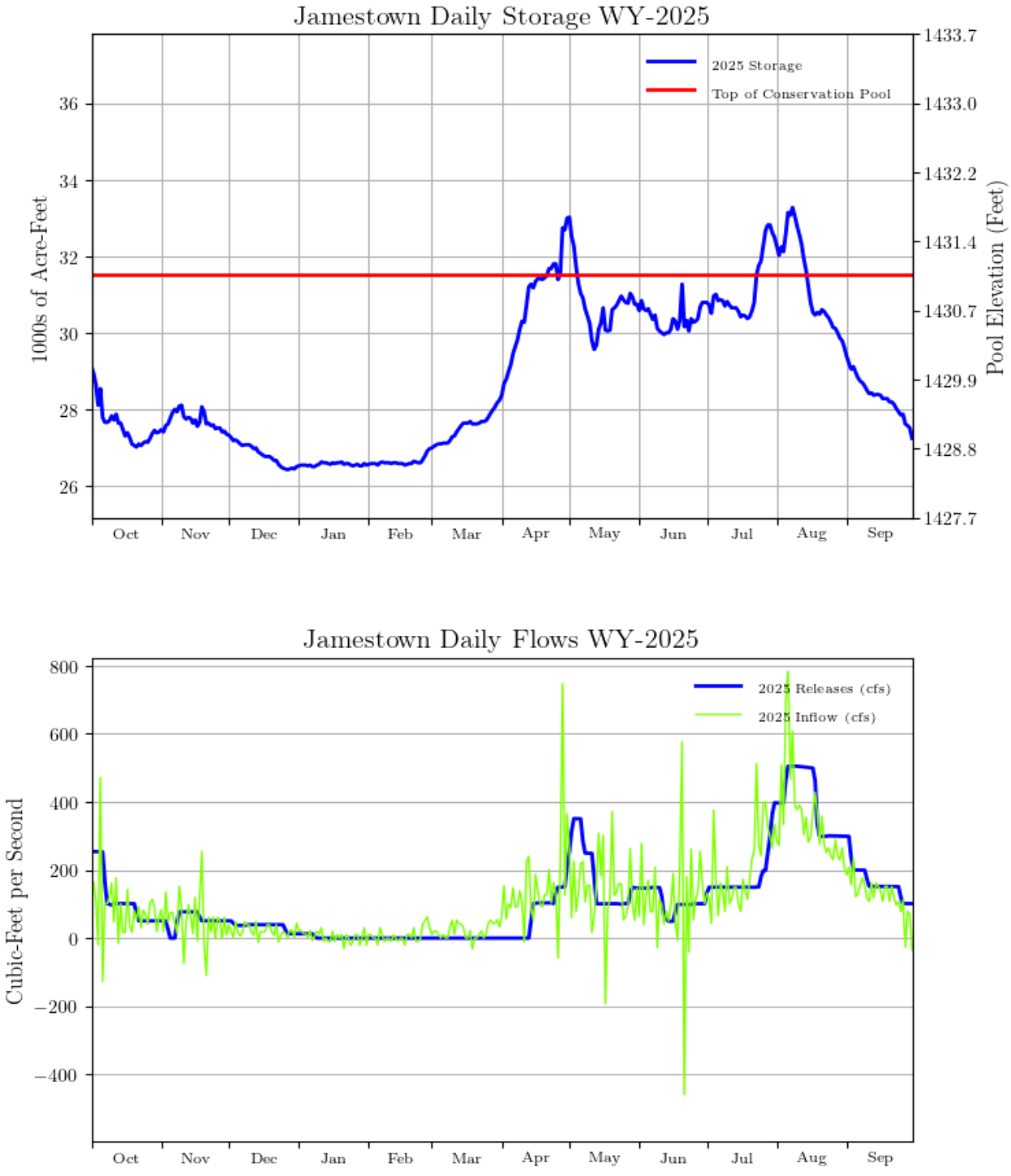


Figure DKG-4.—Jamestown Reservoir daily storage and daily flows for WY2025.

Angostura Reservoir

Background

Angostura Dam, located on the Cheyenne River above Hot Springs, SD, was built to service about 12,200 acres in the Angostura Unit and for power generation. The reservoir has a total capacity of 123,048 AF with an additional surcharge capacity of 57,308 AF. Its principal use is for irrigation of the Angostura Unit, which diverts its water from a high-level outlet at the dam. In the early years, water surplus to irrigation needs was released to the river through a small power plant with a nameplate capacity of 1200 kilowatts. Because of the low runoff, and because actual irrigation diversions were higher than previously anticipated, it was concluded that continued operation of the power plant was economically infeasible. Except for a few operations of less than 24 hours each, the plant was last operated in February 1959. In 1966, the plant was officially closed, and the equipment was declared surplus in March 1968. Disposal of this equipment was completed in 1971. Releases for irrigation are made through the canal outlet works into the Angostura Main Canal having a design capacity of 290 cfs. Releases to the Cheyenne River are only made when the reservoir is assured of filling.

Reclamation's Sedimentation and River Hydraulics Group of the Technical Service Center in Denver conducted a sedimentation survey of Angostura Reservoir in 2004 and provided a survey report and new Area and Capacity Tables in August of 2005. The previous survey was done in 1979. Angostura Reservoir accumulated 7716 AF of sediment since the last survey. Since construction in 1949, Angostura has accumulated 36,867 AF of sediment. The sedimentation rate from 1949–2004 has averaged 670 AF per year. The new Area and Capacity Tables were first used in WY2006.

Operations Plan

Since Angostura Reservoir is the principal source of water for the Angostura Irrigation District and no accurate inflow forecasts are available for this reservoir, it is always operated as full as possible. Water may be released from the facility if the reservoir is expected to fill to meet irrigation demands; excess water is released through the spillway – or, for larger events, through the river outlet and then the gates – when the reservoir is nearly full or assured of filling.

Releases are made from Angostura Reservoir for flood control or irrigation requirements. Flood control releases are generally not expected unless precipitation events occur to fill the reservoir.

Operations Summary

Angostura Dam had no emergency action plan activation during WY2025.

An Emergency Action Plan orientation and communications drill was conducted on April 30, 2025.

An Annual Site Inspection (ASI) was performed on September 25, 2025.

No dam safety related incidents occurred during WY2025.

A major construction contract for a spillway repair project was awarded in WY2025. It includes construction of an access road to the stilling basin, tree removal for the new access road and removal and replacement of deteriorating concrete on the face of the spillway across all five radial gates.

Between May 5, 2025, and August 26, 2025, 31,862 AF of water was released for irrigation.

Monthly Statistics

In relation to data from 74 years of recordkeeping, the following monthly records or near-records were documented:

Angostura Reservoir had its 8th highest December inflow.

Angostura Reservoir had its 10th lowest May end-of-month content, it's 10th lowest June end-of-month content, its 10th lowest July end-of-month content, it's 7th lowest August end-of-month content and its 7th lowest September end-of-month content.

Additional statistical information on Angostura Reservoir and its operations during WY2025 can be found in table DKT-7 and figure DKG-5.

Table DKT-7.—Hydrological Data for Angostura Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	3163.00	42,205	42,205
Top of active conservation	3187.20	123,048	80,843
Top of surcharge	3198.10	180,356	57,308
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	3176.54	80,277	OCT 01, 2024
End of year	3170.48	61,437	SEP 30, 2025
Annual low	3170.43	61,293	SEP 26, 2025
Annual high	3180.10	93,196	MAY 03/04, 2025
Historic high	3189.37	*152,228	MAY 20, 1978

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	277.05	Dec 16, 2024	239.24	Jul 14, 2025
Daily minimum (cfs)	-220.99	May 15, 2025	1.10	Apr 16/17, 2025

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	462	20	119	11	80,620	84
November	1,573	66	119	8	82,074	84
December	2,758	133	123	17	84,709	86
January	1,921	84	113	18	86,517	86
February	1,845	42	106	12	88,256	85
March	3,535	26	94	2	91,697	83
April	1,527	20	112	3	93,112	81
May	3,078	17	5,431	40	90,759	76
June	4,524	24	7,374	37	87,908	85
July	4,472	64	13,163	83	79,217	73
August	-102	-3	12,609	99	66,507	67
September	1,401	135	6,470	120	61,437	65
Annual	26,994	33	45,833	56		79
April–July	13,601	26	26,080	49		76

* Due to new area-capacity table, the capacity that corresponds to the new historic high elevation is less than a previous high-capacity amount (169,020 AF at elevation 3189 ft on June 18, 1962)

Angostura Reservoir

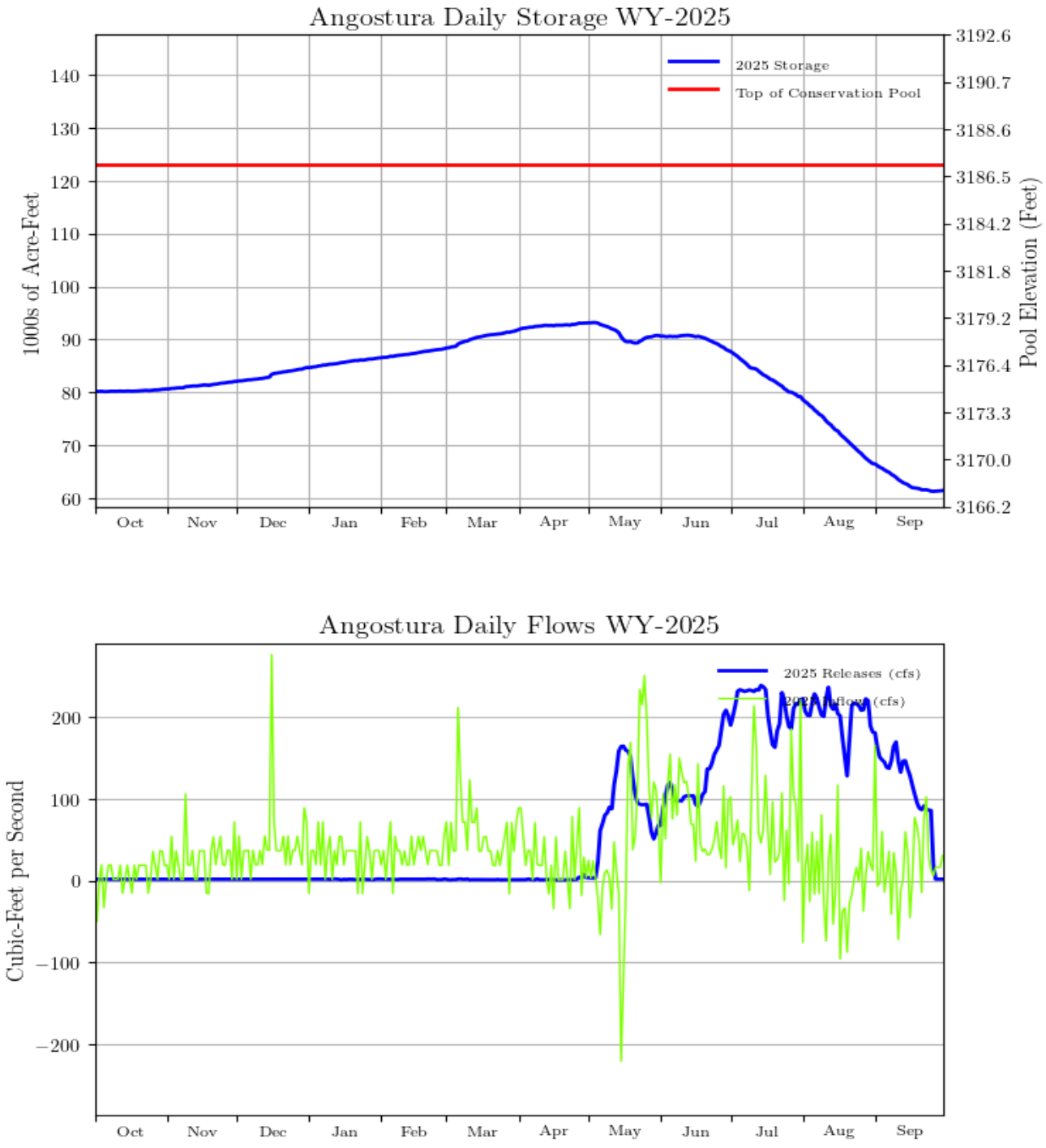


Figure DKG-5.—Angostura Reservoir daily storage and daily flows for WY2025

Belle Fourche Reservoir

Background

Belle Fourche Dam, located near Belle Fourche, SD, was built on Owl Creek, a tributary of the Belle Fourche River. The reservoir has a total capacity of 172,873 AF (169,790 AF active). It is filled by diverting water from the Belle Fourche River through the Inlet Canal, which has a capacity of 1300 cfs. The reservoir is used for irrigation of 57,000 acres in the Belle Fourche Project, which also receives a supplemental supply from Keyhole Reservoir. From November 1965–May 1977, the active capacity of the reservoir was temporarily limited to 160,300 AF at elevation 2981.8 ft until the damaged spillway was replaced.

When the Belle Fourche Reservoir storage right is satisfied by the reservoir filling, the South Dakota Department of Environment and Natural Resources provide guidelines for complying with water rights on the Belle Fourche River. The district is required to continue to bypass 5 cfs for domestic use prior to diverting the Johnson Lateral water right for up to 40 cfs. If flows into the diversion dam are greater than 45 cfs, the district is required to bypass up to 60 cfs for downstream irrigation rights. Any flows in excess of these amounts can be diverted into the reservoir and stored. If all these rights are not needed, the district can divert flows into the reservoir.

Operations Plan

Normal operation at the Diversion Dam during the winter is to maintain flows in the Inlet Canal to store water in Belle Fourche Reservoir. A bypass of 5 cfs is made at the Belle Fourche Diversion Dam to provide flows for domestic use between the diversion dam and the Belle Fourche River confluence with Owl Creek. No releases from the reservoir are planned until irrigation begins in the spring. When the volume of water supply available from the reservoir can be estimated, usually in May or June, the Belle Fourche Irrigation District will establish allotments of water to each irrigator and the storage will be used accordingly. The Standing Operating Procedures for Belle Fourche Dam limit the maximum drawdown of the reservoir to 0.3 ft per day as established in the 1984 Safety Evaluation of Existing Dams report.

Higher rates of drawdown are acceptable if the total drawdown is limited to 20 ft. This restriction will affect delivery rates to water users in the late summer if the reservoir does not fill. At low reservoir levels, the draw down rate becomes the governing factor for releases.

Operations Summary

Belle Fourche Dam had no emergency action plan activation during WY2025.

An Emergency Action Plan orientation and communications drill was conducted on March 20, 2025.

A Periodic Facility Review (PFR) was performed on April 23, 2025.

No dam safety related incidents occurred during WY2025.

No major construction contracts were awarded in WY2025.

78,767 AF of water was released for irrigation.

Monthly Statistics

In relation to data from 74 years of recordkeeping, the following monthly records or near-records were documented:

Belle Fourche Reservoir had its 5th highest July inflow.

No record or near-record end-of-month content was documented.

Additional statistical information on Belle Fourche Reservoir and its operations during WY2025 can be found in table DKT-8 and figure DKG-6.

Table DKT-8.—Hydrological Data for Belle Fourche Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of dead	2927.00	3083	3083
Top of active conservation	2975.00	172,873	169,790
Top of surcharge	2984.40	259,012	86,139
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	2960.95	79,880	Oct 01, 2024
End of year	2967.27	116,339	Sep 30, 2025
Annual low	2960.95	79,880	Oct 01, 2024
Annual high	2973.38	160,080	May 31, 2025
Historic high	2975.92	196,792	May 30, 1996

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	964.98	Apr 08, 2025	524.11	Aug 25, 2025
Daily minimum (cfs)	-1936.00	Apr 13, 2025	0	*

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	7,420	73	5	1	87,556	112
November	8,820	92	0	0	96,376	110
December	10,178	117	0	0	106,554	111
January	9,077	104	0	0	115,631	111
February	8,822	94	0	0	124,453	110
March	15,049	96	0	0	139,502	108
April	10,049	74	0	0	149,551	105
May	16,098	111	5,569	74	160,080	108
June	88,445	74	17,470	104	151,055	105
July	12,339	319	14,444	41	148,950	133
August	5,880	200	24,257	71	130,573	161
September	2,758	54	16,992	99	116,339	168
Annual	114,935	101	78,737	70		117
April–July	46,931	108	37,483	63		112

* Frequently observed during fall, winter and spring months

Belle Fourche Reservoir

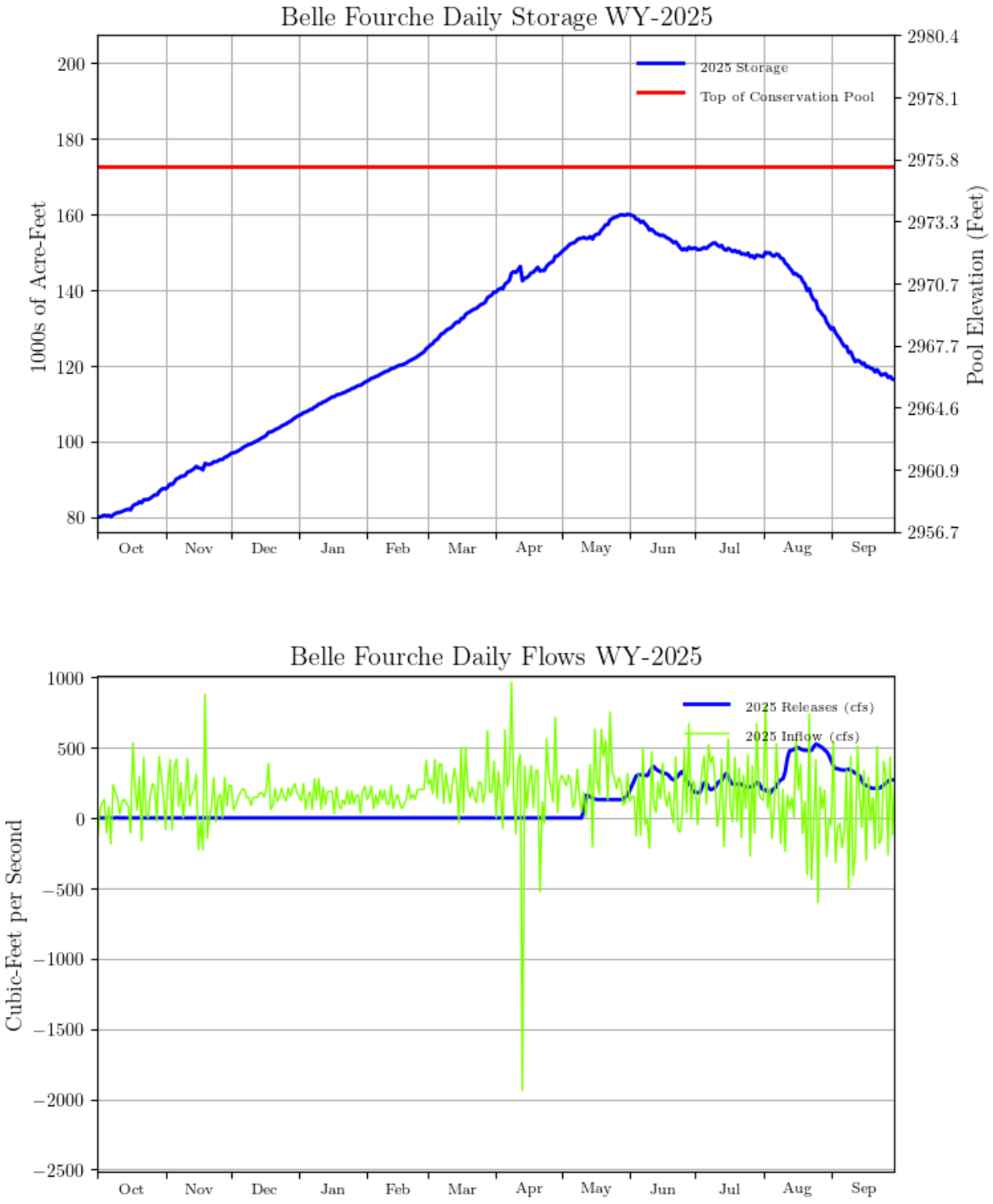


Figure DKG-6.—Belle Fourche Reservoir daily storage and daily flows for WY2025.

Deerfield Reservoir

Background

Deerfield Dam is located on Castle Creek, a tributary of Rapid Creek above Rapid City. Deerfield Reservoir and Pactola Reservoir furnish a supplemental irrigation supply to about 8900 acres in the Rapid Valley Water Conservancy District and furnish replacement water for a portion of the water used from Rapid Creek by Rapid City. A contract is in place between the United States, Rapid City, SD, and the district for the storage space at Deerfield Reservoir. The majority of prior rights to the flows of Rapid Creek during the irrigation season are held by individuals and ditch companies in the Rapid Valley Water Conservancy District.

In 1985, Deerfield Dam was modified to accommodate a larger flood as determined from the results of the Probable Maximum Flood analysis. These modifications consisted of raising the crest of the dam 38 ft, excavating an unlined auxiliary spillway, removing, and filling in the old spillway, and extending the existing emergency gate passageway to the new control house at the higher crest elevation. The reservoir has a total capacity of 15,654 AF with an additional 26,657 AF of surcharge capacity.

During the winter of 1995-1996 the hollow jet valves were removed to allow the installation of the jet flow valves as part of the outlet works modification contract. The work was done to improve fish habitat in 1.5 miles of the creek immediately downstream from the dam. The stream improvement project was a cooperative effort accomplished by the City of Rapid City, Rapid Valley Water Conservancy District, Black Hills Fly Fishers, Bureau of Reclamation, US Forest Service, and SD Game Fish and Parks. The project modified the outlet works of Deerfield Dam by installing Jet Flow Gates to allow greater minimum winter releases than the 6″ bypass can provide.

Operations Plan

A target of 15,000 AF of storage by March 1 will usually dictate the winter release, which is set near December 1. The winter release is set based on water usage from Deerfield by the Rapid Valley Water Conservancy District (District) and the storage target of 15,000 AF by March 1. The goal is to be near full by May 1 which is the start of the irrigation season.

A release of around 13 cfs is maintained until the spring runoff requires higher releases in late March or early April. Excess water is normally released only when the reservoir is full or assured of filling. Since no inflow forecasts are available, the reservoir is normally operated as full as possible. Two SnoTel sites (North Rapid Creek and Blind Park) are operated in the Pactola and Deerfield drainage basin. Deerfield storage may be required to meet District irrigation needs.

The jet flow gates are used for winter releases and provide minimum stream flows of 6 cfs, enhancing winter fishery conditions in Castle Creek and improving fishery production conditions in the stream. In addition, the bypass pipe is operated during the winter to avoid freezing with a maximum discharge of 2 cfs.

Storage at the end of water year depends on the amount of inflow to the Pactola-Deerfield system and the need for project water deliveries from Deerfield Reservoir. During average and above average inflow years, summer releases are made to bring the reservoir storage to about 14,900 AF by September 30. This is to accommodate minimum releases of 6 cfs into Castle Creek during the winter. The actual release depends on runoff conditions and downstream ice conditions in Castle Creek.

Operations Summary

Deerfield Dam had no emergency action plan activation during WY2025.

An Emergency Action Plan orientation, communications drill and tabletop exercise (TTX) was conducted on March 27, 2025.

An Annual Site Inspection (ASI) was performed on June 17, 2025.

No dam safety related incidents occurred during WY2025.

No major construction contracts were awarded in WY2025.

6298.1 AF of water was released for irrigation by the Rapid Valley Conservation District from Deerfield and Pactola Reservoirs.

6110 AF of water was released for municipal use by Rapid City from Deerfield and Pactola Reservoirs.

592 AF of water was released for municipal use by the Rapid Valley Sanitation District from Deerfield and Pactola Reservoirs.

Monthly Statistics

In relation to data from 73 years of recordkeeping, the following monthly records or near-records were documented:

Deerfield Reservoir had its 10th lowest May inflow.

No record or near-record end-of-month content was documented.

Additional statistical information on Deerfield Reservoir and its operations during WY2025 can be found in table DKT-9 and figure DKG-7.

Table DKT-7.—Hydrological Data for Deerfield Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of dead	5839.00	151	151
Top of active conservation	5908.00	15,654	15,503
Top of surcharge	5953.00	42,311	26,657
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	5906.34	14,969	Oct 01, 2024
End of year	5905.45	14,603	Sep 30, 2025
Annual low	5903.90	13,979	Nov 23, 2024
Annual high	5906.95	15,223	Apr 01, 2025
Historic high	5909.05	16,157	Feb 25, 1985

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	282.26	OCT 01, 2024	18.00	*
Daily minimum (cfs)	-294.52	OCT 03, 2024	8.00	**

Month	Inflow		Outflow		Content	
	AF	% of avg	AF	% of avg	AF	% of avg
October	1,510	210	615	76	14,279	110
November	411	63	595	126	14,095	108
December	909	135	498	114	14,498	109
January	1,191	179	492	115	14,849	109
February	809	131	469	112	15,189	110
March	888	98	856	131	15,181	108
April	746	61	1,032	99	14,895	105
May	1,490	103	957	70	14,710	103
June	1,008	79	893	68	14,825	104
July	1,018	107	719	61	14,648	105
August	907	123	615	52	14,825	110
September	373	56	595	53	14,603	112
Annual	11,260	107	8,336	80		108
April–July	4,262	87	3,601	73		104

* Frequently observed during spring months
** Frequently observed during winter months

Deerfield Reservoir

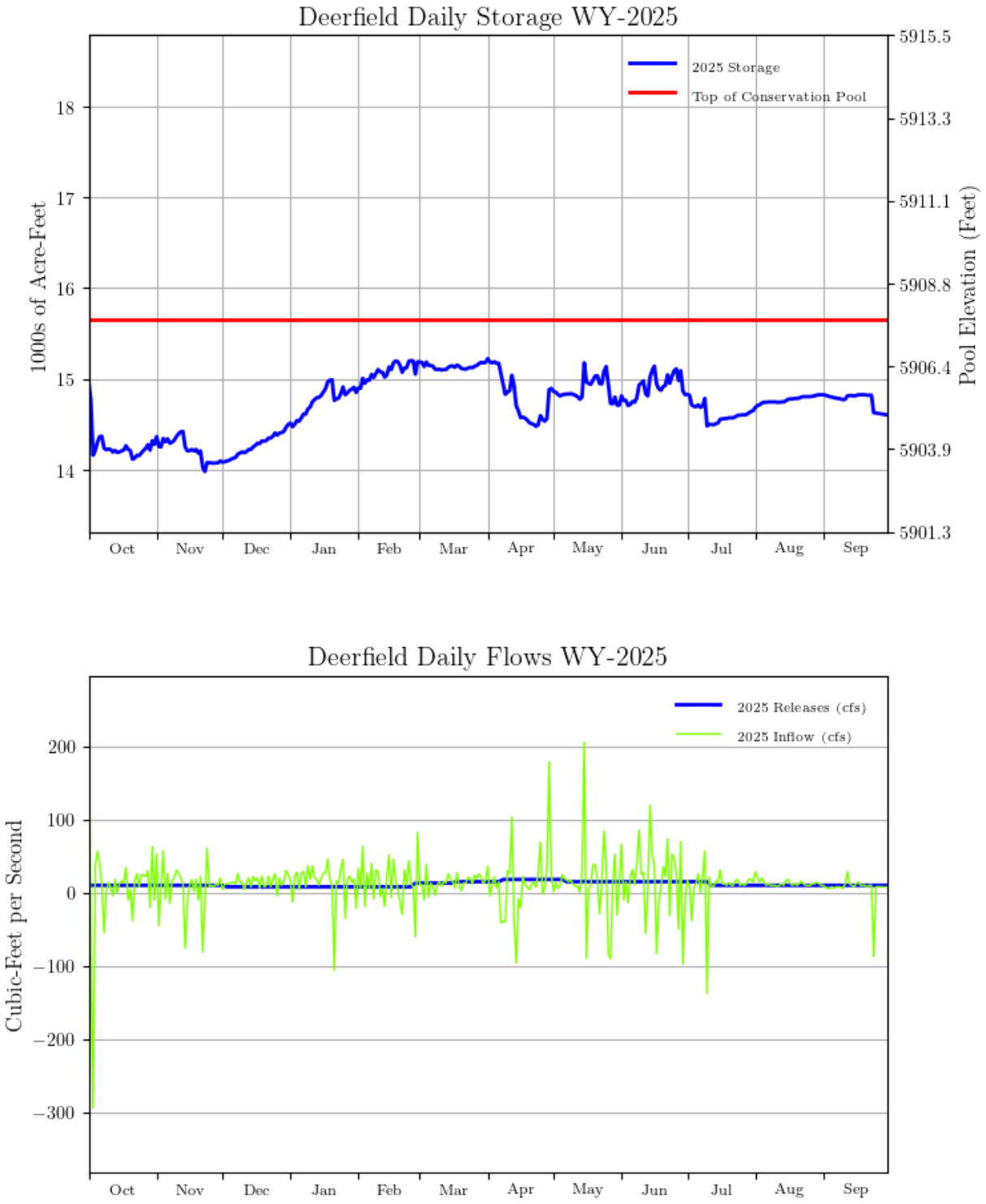


Figure DKG-7.—Deerfield Reservoir daily storage and daily flows for WY2025

Keyhole Reservoir

Background

Keyhole Dam is located on the Belle Fourche River below Moorcroft, WY. The reservoir has a conservation capacity of 188,671 AF (182,079 AF active) and 140,463 AF of exclusive flood control space. It was constructed to furnish a supplemental irrigation supply to 57,000 acres in the Belle Fourche Project and for flood control. Keyhole Reservoir is subject to the Belle Fourche River Compact, and the inflows and storage in the reservoir are allocated 10 percent to Wyoming users and 90 percent to South Dakota users, subject to prior rights. On January 3, 1963, the Belle Fourche Irrigation District executed a long-term contract for the use of 7.7 percent of active storage space in the reservoir. This space will be used to store water belonging to the irrigation district under its prior water right along with the district's pro rata share of storable inflows to Keyhole Reservoir. On January 1, 1985, the Crook County Irrigation District's contract for 18,080 AF of space in Keyhole Reservoir became effective. The allocated space is used by each organization to store its pro rata share of inflows to Keyhole Reservoir. The flood control space at Keyhole Reservoir is all located above an ungated spillway. The spillway capacity is 11,000 cfs at maximum water surface elevation. The downstream safe channel capacity is 3000 cfs. Formulas for forecasting inflows have not been developed. Research by the Soil Conservation Service during water years 1992–1994 show that inflow forecasting to Keyhole Reservoir is not reliable since there is no consistent snowpack and precipitation is highly cyclical. No further efforts to develop forecast models are planned.

Reclamation's Sedimentation and River Hydraulics Group of the Technical Service Center in Denver conducted a sedimentation survey of Keyhole Reservoir in 2003 and provided a survey report and new area and capacity tables in July of 2005. The previous survey was done in 1978. Keyhole Reservoir accumulated 5082 AF of sediment since the previous survey. Since construction in 1952, Keyhole has accumulated 12,495 AF of sediment. The sedimentation rate from 1952-2003 has averaged 240 AF per year. The new Area and Capacity Tables were first used in WY2006.

Operations Plan

Releases from Keyhole Reservoir are made for either irrigation requirements or flood control. Releases are generally not anticipated from the reservoir from October–May, nor are flood control releases unless extreme precipitation events occur to fill the reservoir.

Discharges from toe drains of the dam and downstream inflows normally satisfy downstream requirements for stock water and other minor uses during this period. Releases from storage accounts are made during the summer in response to irrigation demand from the Belle Fourche Irrigation District in South Dakota and the Crook County Irrigation District in Wyoming. Each organization maintains a storage account in Keyhole Reservoir; the contract with the Belle Fourche Irrigation District also includes provisions for the annual purchase of additional unsold South Dakota storage. Peak irrigation demand releases are normally between 125 and 175 cfs.

The Belle Fourche Irrigation District has lands along the inlet canal that during drought conditions can depend entirely on Keyhole Reservoir for storage. These lands are served with flows from the Belle Fourche River and storage from Keyhole. Additionally, water contracted by Belle Fourche Irrigation District may be released from Keyhole Reservoir to supplement storage in Belle Fourche Reservoir if necessary. Finally, Crook Country Irrigation District also contracts irrigation water from Keyhole Reservoir.

Operations Summary

Keyhole Dam had no emergency action plan activation during WY2025.

An Emergency Action Plan orientation and communications drill was conducted on March 21, 2025.

An Annual Site Inspection (ASI) was performed on July 23, 2025.

No dam safety related incidents occurred during WY2025.

No major construction contracts were awarded in WY2025.

No water was released specifically for downstream irrigation.

Monthly Statistics

In relation to data from 74 years of recordkeeping, the following monthly records or near-records were documented:

Keyhole Reservoir had its 8th highest October inflow.

No record or near-record end-of-month elevation was documented.

Additional statistical information on Keyhole Reservoir and its operations during WY2025 can be found in table DKT-10 and figure DKG-8.

Table DKT-8.—Hydrological Data for Keyhole Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	4051.00	6592	6592
Top of active conservation	4099.30	188,671	182,079
Top of exclusive flood control	4111.50	329,134	140,463
Top of surcharge	4128.73	623,943	294,809
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	4089.40	111,977	Oct 01, 2024
End of year	4089.29	111,308	Sep 30, 2025
Annual low	4089.15	110,459	Oct 21, 2024
Annual high	4090.46	118,610	Jun 11, 2025
Historic high	4100.38	210,222	May 21, 1978

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily Peak (cfs)	612.56	Oct 22, 2024	0	*
Daily Minimum (cfs)	-767.85	Oct 19, 2024	0	*

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	1,105	-278	0	0	113,082	114
November	-798	249	0	0	112,284	114
December	245	133	0	0	112,529	114
January	369	75	0	0	112,898	114
February	1,483	57	0	0	114,381	113
March	2,697	35	0	0	117,078	108
April	509	21	0	0	117,587	109
May	573	12	0	0	118,160	106
June	-701	-24	0	0	117,459	105
July	-1,328	143	0	0	116,131	108
August	-2,371	123	0	0	113,760	11
September	-2,452	139	0	0	111,308	112
Annual	-669	-4	0	0		110
April–July	-947	-10	0	0		107

* Observed entire year

Keyhole Reservoir

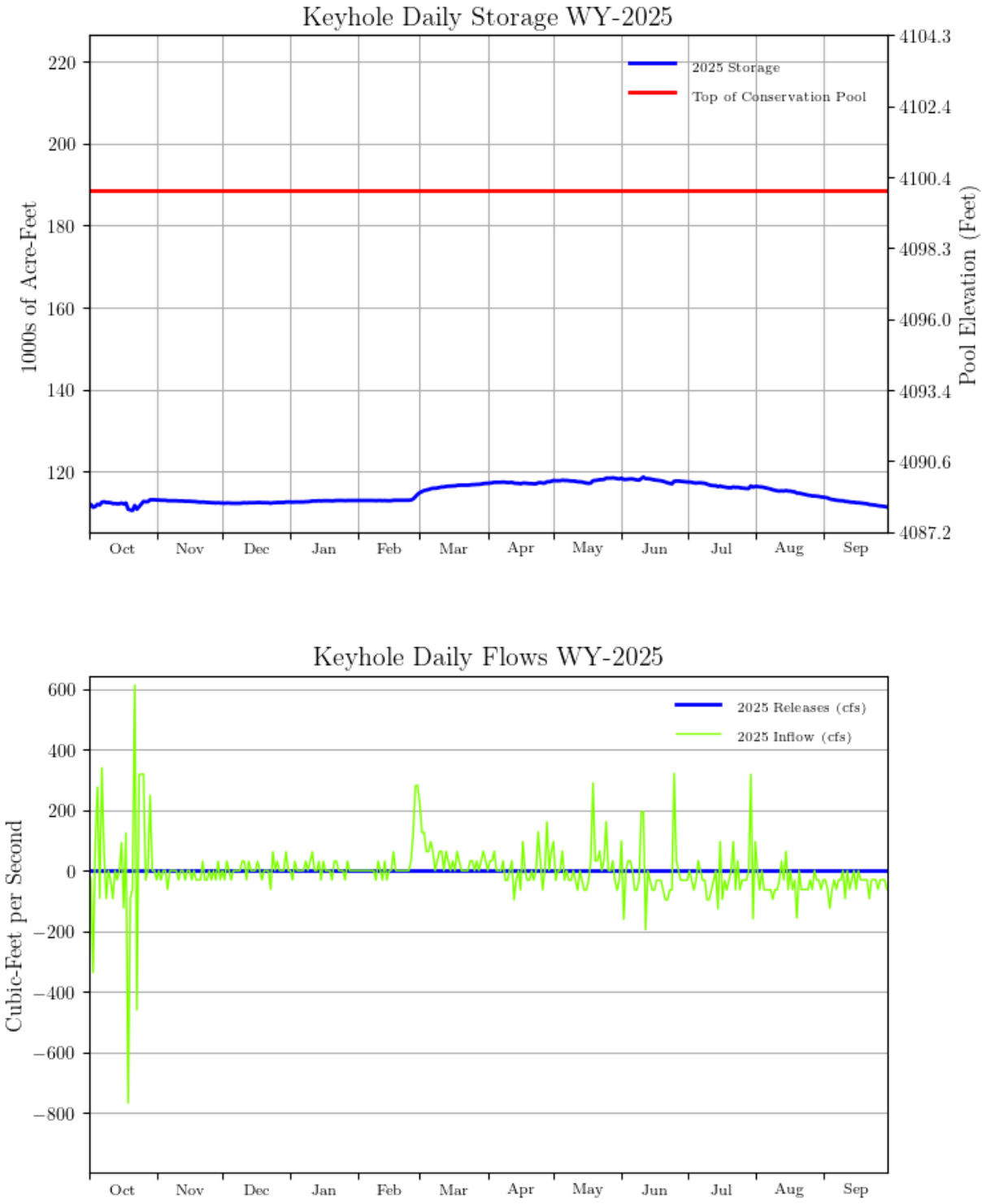


Figure DKG-8.—Keyhole Reservoir daily storage and daily flows WY2025.

Pactola Reservoir

Background

Pactola Dam is located on Rapid Creek above Rapid City, SD and acts in conjunction with Deerfield Reservoir to furnish a supplemental irrigation supply to about 8900 acres in the Rapid Valley Water Conservancy District, replacement water for Rapid City, and a supply of domestic water for private water systems both above and below the city. The reservoir is also operated to provide flood control. It has a conservation capacity of 55,972 AF (54,955 AF active) and 43,057 AF of exclusive flood control space. The flood control space is all below the ungated spillway crest, and releases in this pool are controlled by the river outlet works. Rapid City has contracts for Pactola and Deerfield Reservoir water. The Rapid Valley Sanitation District and Hisega Meadows Water Inc. also have contracts for water service from Pactola Reservoir. Operation of the two reservoirs is integrated to maintain as much water as possible in the upstream facility, Deerfield Reservoir, and at the same time maintain a uniform outflow from Deerfield to maximize fishery benefits in the stream between the reservoirs. Since no inflow forecasts are available, the reservoir is normally operated as full as possible. Two SNOTEL (North Rapid Creek and Blind Park) sites were installed in the Pactola and Deerfield drainage basin in May of 1990.

As part of the Safety Examination of Existing Structures (Safety of Dams) Program, a study was made in the early 1980s to determine the adequacy of Pactola Dam, Spillway, and Reservoir to safely pass the new Inflow Design Flood (IDF) determined on the basis of present-day hydrologic technology. The studies showed that the facility was not able to safely handle the new IDF. Modification work was completed in 1987 and provided sufficient surcharge storage and spillway capacity to pass the IDF. Modification work consisted of raising the crest of the dam 15 ft, widening the existing rock-cut spillway chute and stilling basin from 240 ft to 425 ft, relocating Highway 385 to the new dam crest, extending the existing gate access shaft to the higher crest elevation, and reconstructing a new two-level gate control house at the higher crest elevation.

A new long-term storage contract was signed on July 31, 2007 between Reclamation and the city of Rapid City. The contract provides storage space of 49,000 AF for the city and 6000 AF was retained by Reclamation.

Operations Plan

Although it is not mandatory, if possible, Pactola Releases can be adjusted during the summer months to aim for 40 cfs passing the gauging station in Founder’s Park. Also, if possible, during the cooler fall months, the Bureau aims for 30 to 35 cfs passing the gauging station in Founder’s Park. Such releases are dependent on U.S. storage and inflows from the watershed below the dam.

The irrigators need to order flows from storage if their demand limits natural flows past Farmingdale to less than 10 cfs. Also, the Reclamation has an instream flow right for U.S. storage release flows that is in addition to the 10 cfs minimum required by the state for natural flows past Farmingdale.

The winter release is coordinated with the City of Rapid City, South Dakota Department of Game, Fish, and Parks, local water users, Forest Service, and USACE.

With a reservoir content of 29,000 AF and above, a release of 20 cfs has been specified in the Finding of No Significant Impact for the Environmental Assessment for the Pactola Reservoir Water Service Contact Renewal (FONSI No. DK600-00-03).

Pactola winter releases can be increased by 2 or 3 cfs during extremely cold weather to replace water that is lost in the formation of ice in the creek channel. Once the channel is covered with ice and snow, which provides insulation for the stream, the releases can be reduced if below average snowpack and inflow conditions indicate a need to conserve storage. During the flood control season, total releases are controlled between 20 cfs and 1,000 cfs. Releases in excess of 200 cfs when storage is below the top of the conservation pool at elevation 4580.2 ft are cleared with the USACE. The USACE issues release orders on a current basis when storage is in the exclusive flood control pool. Contract negotiations with water users at Pactola Reservoir provide the basis for future reservoir operations.

During the irrigation season of May 1 to October 30, sufficient natural flows to meet prior rights of the irrigators are bypassed through the reservoir. Orders by water users are released under the provisions of contracts with the water users. Drought conditions that have existed in past years have resulted in conservation measures being initiated by water users. Continuation of water conservation measures assists in conserving reservoir storage and refilling of the reservoir.

With No Water in the U.S. Storage

Operating criteria established for the reservoir in the Definite Plan Report called for minimum winter conservation releases to be 7 cfs from October 1 to April 15 and 20 cfs from April 15 to October 1 when the reservoir content is below 29,000 AF. Releases of 15 cfs from October 1 to March 1 and 20 cfs from March 1 through October 1 are established for reservoir content above 29,000 AF. Minimum summer conservation releases are 20 cfs at all reservoir contents:

Reservoir content less than 29,000 AF:
October 1–April 15 7 cfs
April 15–October 1 20 cfs

Reservoir content greater than 29,000 AF:
October 1–March 1 15 cfs
March 1–October 1 20 cfs

With Water in the U.S. Storage

Pactola Reservoir is operated as close to the top of the conservation pool as possible, while regulating releases required to maintain a downstream fishery and to preserve flood control space. The new long-term storage contract for Pactola, between Reclamation and the City of Rapid City, was signed on July 31, 2007. New operating criteria for releases to Rapid Creek were established in the Standard Operating Plans. The following minimum releases are made as long as water is available in the Fisheries, Wildlife, and Recreation Pool:

Reservoir content less than 29,000 AF:
October 1–April 15 15 cfs
April 15–October 1 20 cfs

Reservoir content greater than 29,000 AF:
Year round 20 cfs

Operations Summary

Pactola Dam had no emergency action plan activation during WY2025.

An Emergency Action Plan orientation, communications drill and tabletop exercise (TTX) was conducted on March 27, 2025.

An Annual Site Inspection (ASI) was performed on July 25, 2025.

No dam safety related incidents occurred during WY2025.

No major construction contracts were awarded in WY2025.

6298.1 AF of water was released for irrigation by the Rapid Valley Conservation District from Deerfield and Pactola Reservoirs.

6110 AF of water was released for municipal use by Rapid City from Deerfield and Pactola Reservoirs.

592 AF of water was released for municipal use by the Rapid Valley Sanitation District from Deerfield and Pactola Reservoirs.

Monthly Statistics

In relation to data from 70 years of recordkeeping, the following monthly records or near-records were documented:

No record or near-record end-of-month inflow was documented.

No record or near-record end-of-month elevation was documented.

Additional statistical information on Pactola Reservoir and its operations during WY2025 can be found in table DKT-11 and figure DKG-9.

Table DKT-9.—Hydrological Data for Pactola Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of inactive and dead	4456.10	1017	1017
Top of active conservation	4580.20	55,972	54,955
Top of exclusive flood control	4621.50	99,029	43,057
Top of surcharge	4651.70	140,921	41,892
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	4572.77	49,860	Oct 01, 2024
End of year	4570.29	47,947	Sep 30, 2025
Annual low	4567.95	46,196	Feb 28–Mar 01, 2025
Annual high	4572.77	49,860	Oct 01, 2024
Historic high	4589.43	64,246	Jun 29, 2015

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	132.99	Apr 22, 2025	60.05	Aug 30, 2025
Daily minimum (cfs)	2.97	Nov 20, 2024	30.10	*

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	1,375	59	2,005	129	48,703	106
November	1,493	85	1,621	137	47,978	104
December	1,402	92	1,614	134	47,224	103
January	1,362	86	1,518	129	46,626	101
February	1,301	83	1,369	126	46,196	100
March	2,263	88	1,872	100	46,582	99
April	2,899	67	2,973	63	47,607	99
May	3,096	45	5,533	37	48,473	98
June	2,644	37	6,561	37	48,718	98
July	3,747	87	5,841	56	48,903	101
August	3,222	110	4,257	72	48,780	105
September	2,021	88	2,940	97	47,947	105
Annual	26,825	69	28,029	74		101
April–July	12,386	55	9,554	46		83

* Frequently observed during February and March

Pactola Reservoir

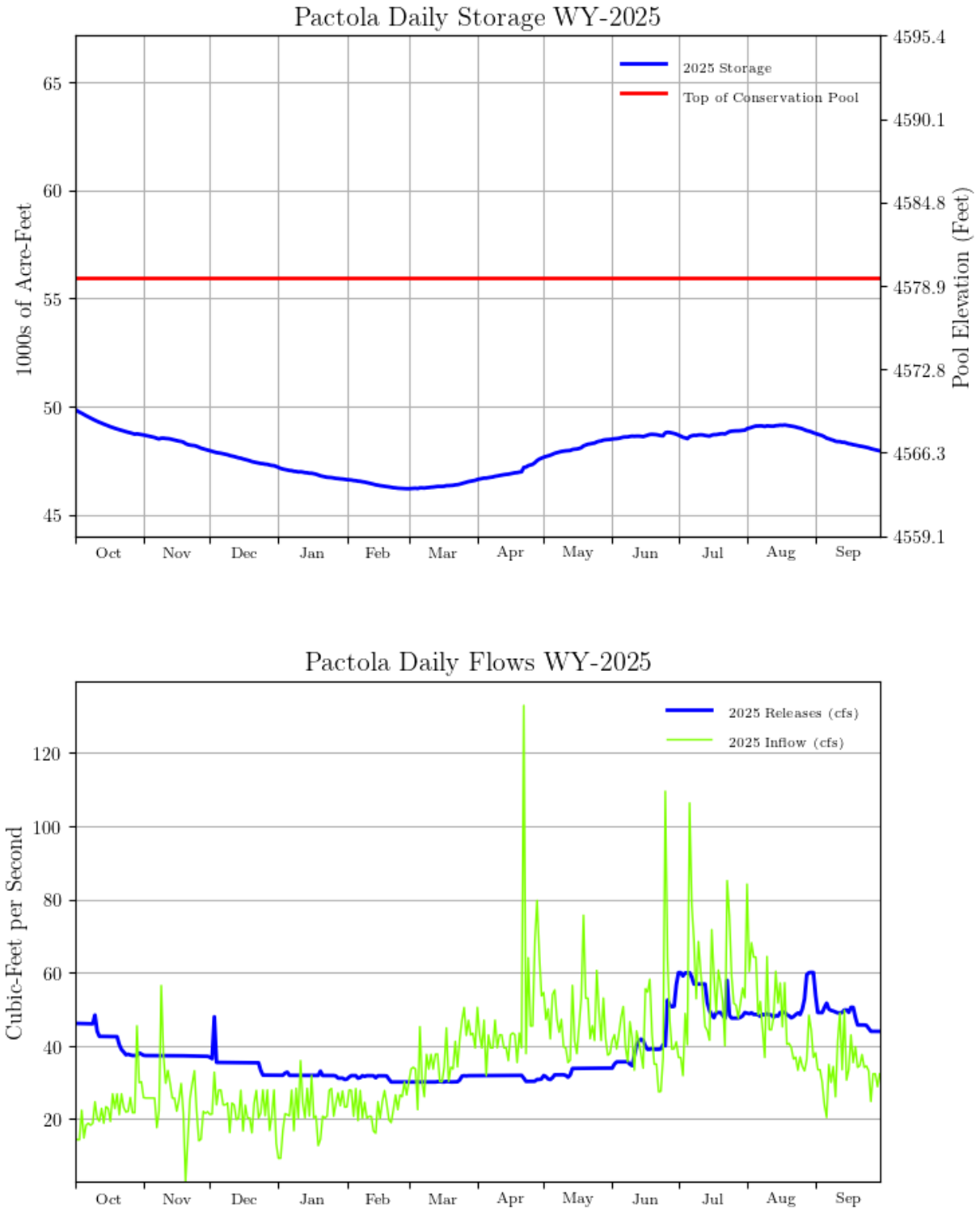


Figure DKG-9.—Pactola Reservoir daily storage and daily flows for WY2025.

Shadehill Reservoir

Background

Shadehill Dam is located on the Grand River near Shadehill, SD, and was constructed for irrigation of 9700 acres and for flood control, recreation, and fish and wildlife purposes. The reservoir has a dead and conservation capacity totaling 120,172 AF with an additional exclusive flood control capacity of 230,004 AF and a surcharge capacity of 119,560 AF. Flood control space is all located above the crest of an un-gated glory-hole spillway. Because of the questionable quality of water, it was decided to postpone construction of distribution works for irrigation.

After further study, it was concluded that water from Shadehill Reservoir can be used for sustained irrigation if certain limitations of soils, leaching water, soil amendments, and drainage are met. A definite plan report covering 6700 acres which meets these limitations has been completed, approved by the Commissioner, and released for distribution. On December 17, 1963, landowners within the area voted 24 to 21 against formation of an irrigation district. Further action on development of the area was deferred until the attitude of the landowners was more favorable. Pending more extensive irrigation development, an additional 51,500 AF of space between elevations 2260 ft and 2272 ft was allocated to flood control. Allocations and evacuation of this space was made possible by modification of the outlet works in 1969 to permit a discharge of 600 cfs to the river. In June of 1975, the West River Conservancy Sub-District was formed combining all but one of the old individual contracts for water supply from the reservoir into one. Acreage contracted for by the district was 5000 acres; however, only 3064 acres were developed. On March 18, 1986, the contract between Reclamation and the West River Conservancy Sub-District was assigned to the Shadehill Water User District, an organization, which succeeded the Sub-District under South Dakota law. This contract has expired and presently conservation releases are meeting irrigation demands. Should irrigation releases be required a temporary water service contract will need to be executed with the Shadehill Water User District.

Because certain release criteria reduced the effectiveness of flood control operations in the zone between elevations 2260 ft and 2272 ft, and because the USACE has constructed Bowman Haley Reservoir upstream of Shadehill Reservoir with 53,800 AF of flood control space, the USACE requested that the interim flood control agreement be terminated and that responsibility for the operations of Shadehill Reservoir when the pool is between elevations 2260 ft and 2272 ft revert to Reclamation. By a revised field working agreement dated May 15, 1972, it was agreed that the space between elevations 2260 ft and 2272 ft (51,500 AF) be reallocated to conservation use. However, space below elevation 2272 ft will continue to be evacuated before the start of the spring runoff, but to a lesser extent than in the past.

Operations Plan

Winter release are maintained at approximately 20 cfs to prepare the reservoir elevation for spring inflows. Generally, this release rate is maintained until ice comes out of the channel in the spring to prevent ice jams at crossings and afterward are adjusted based on inflows and storage. Standard procedure is to fill the reservoir in the spring, maintain a near full reservoir during the summer and position the reservoir in the fall as discussed in the SOP. Releases for irrigation demands are met by conservation releases.

Shadehill Reservoir releases water year-round to meet minimum basic natural flow requirements of downstream water users, primarily ranchers.

Operations Summary

An Internal Alert was declared at Shadehill Dam on May 21, 2025, due to a broken auxiliary irrigation line that froze against the spillway wall, causing additional pressure. The pipe was replaced and the internal alert was terminated on July 7, 2025.

An Emergency Action Plan orientation and communications drill was conducted on March 25, 2025.

A Periodic Facility Review (PFR) was performed on April 22, 2025.

No dam safety related incidents occurred during WY2025.

Ladders and platforms leading to the gate chamber were replaced in WY2025. Montana Area Office electricians will replace the electrical wiring and conduit in the gatehouse and chamber.

No water was released specifically for downstream irrigation.

Monthly Statistics

In relation to data from 74 years of recordkeeping, the following monthly records or near-records were documented:

No record or near-record inflow was documented.

Shadehill Reservoir had its 9th lowest October inflow, its 9th lowest November inflow, its 9th lowest December inflow, its 9th lowest February inflow, its 9th lowest March inflow and its 9th lowest April inflow.

Additional statistical information on Shadehill Reservoir and its operations during WY2025 can be found in table DKT-12 and figure DKG-10.

Table DKT-10.—Hydrological Data for Shadehill Reservoir WY2025

Reservoir Allocations	Elevation (ft)	Total Reservoir Storage (AF)	Storage Allocation (AF)
Top of dead	2250.80	43,869	43,869
Top of active conservation	2272.00	120,172	76,303
Top of exclusive flood control	2302.00	350,176	230,004
Top of surcharge	2312.00	469,736	119,560
Storage-Elevation Data	**Elevation (ft)**	**Storage (AF)**	**Date**
Beginning of year	2263.08	80,797	Oct 01, 2024
End of year	2267.94	100,904	Sep 30, 2025
Annual low	2262.56	78,853	Feb 18, 2025
Annual high	2269.79	109,409	Jun 03, 2025
Historic high	2297.90	318,438	Apr 10, 1952

Inflow-Outflow Data	Inflow	Date	Outflow	Date
Daily peak (cfs)	5319.03	Jun 03, 2025	24.00	Jun 04–08, 2023
Daily minimum (cfs)	-497.81	Jun 04, 2025	19.10	Feb 19, 2025

	Inflow		Outflow		Content	
Month	AF	% of avg	AF	% of avg	AF	% of avg
October	730	61	1,182	32	80,156	74
November	544	64	1,142	35	79,558	75
December	958	131	1,181	48	79,335	76
January	1,255	144	1,181	51	79,409	78
February	880	28	1,066	52	79,223	77
March	8,479	36	1,225	12	86,478	74
April	3,417	17	1,232	7	88,663	75
May	11,056	102	1,342	14	98,377	82
June	5,494	63	1,393	18	102,478	85
July	4,493	135	1,435	28	105,536	89
August	-1,640	-896	1,418	35	102,478	89
September	-208	202	1,366	40	100,904	91
Annual	35,458	49	15,163	21		81
April–July	24,460	58	5,402	14		83

Shadehill Reservoir

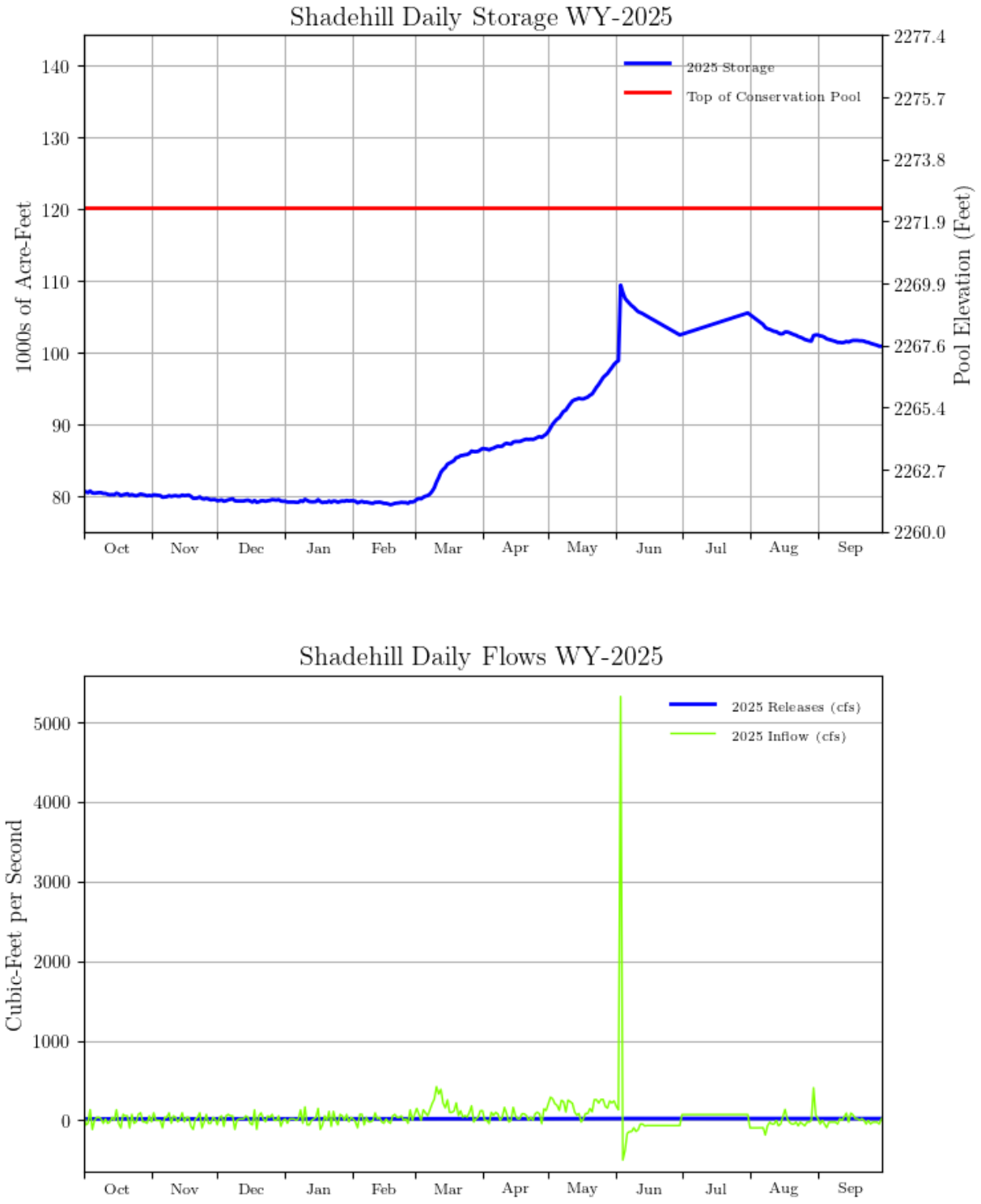


Figure DKG-10.—Shadehill Reservoir daily storage and daily flows for WY2025.

Summary of Operations for Water Year 2025 for Reservoirs Under the Responsibility of the U.S. Army Corps of Engineers

Big Bend South Dakota, Fort Peck Montana, Fort Randall South Dakota, Garrison, North Dakota, Gavins Point, Nebraska, and Oahe, South Dakota

Overview

The Missouri River main stem reservoir system, consisting of six reservoirs located in Montana, North Dakota, South Dakota, and Nebraska provides for the following beneficial uses: flood control, irrigation, navigation, power, municipal and industrial water supply, water quality control, fish and wildlife, and recreation. Based on information from the USACE's 2025–2026 AOP, the capacity and storage allocations of the main stem system were updated to current values and are shown in table CET-1 in upstream to downstream order as follows:

Table CET-1.—Reservoir storage allocation (1,000 AF)

Dam	Permanent	Carryover Multiple Use	Flood Control and Multiple Use	Exclusive Flood Control	Storage
Fort Peck, MT	4,088	10,700	2,704	971	18,463
Garrison, ND	4,794	12,951	4,211	1,495	23,451
Oahe, SD	5,315	13,353	3,208	1,107	22,983
Big Bend, SD	1,631	0	118	61	1,810
Fort Randall, SD	1,469	1,532	1,306	986	5,293
Gavins Point, NE	295	0	79	54	428
Totals	17,592	38,536	11,626	4,674	72,428

Each main stem facility serves a powerplant. The number of generating units and total nameplate capabilities are shown in table CET-2 below:

Table CET-2.—USACE powerplant generating capacity for the main stem Missouri

Powerplant	Units	Capacity (kilowatts)
Fort Peck, MT	5	185,250
Garrison, ND	5	583,300
Oahe, SD	7	786,030
Big Bend, SD	8	517,470
Fort Randall, SD	8	320,000
Gavins Point, NE	3	132,300
Totals	36	2,524,350

Main stem system releases are regulated to support the multiple use purposes of the reservoirs. The navigation season on the Missouri River below the dams normally is from late March to late November. Generally, releases from the system for navigation are higher during late summer and fall lowering the system storage. During that time, more of the system's hydropower is generated from the lower most projects. During closure of the navigation season, higher releases are made, and more power is generated from the upstream Fort Peck and Garrison reservoirs. This offsets the reduced release and generation from the downstream projects during winter when there is no flow support for navigation. The desired annual target system storage level is 56.1 million AF on the first of March.

Operation of the Missouri River main stem reservoir system provides the following eight beneficial uses: flood control, irrigation, navigation, power, municipal and industrial water supply, water quality control, fish and wildlife, and recreation. Table CET-3 presents the regulation benefit for most of those uses as recorded in 2024–2025, 2023–2024, and the average. Benefits are defined as the tons of produce shipped, dollars of damages prevented, kilowatt hours of electricity produced, and reservoir elevation and river stages maintained. For the shipping information, estimates also were provided this year which included the sand, gravel, and waterway material shipped. Table CET-3 shows damages prevented at September 2025 price levels.

Table CET-3.—Main stem reservoir system comparison of present and past benefits

Use of Regulated Water	Period of Use or Season	Totals	Totals	Long-Term
Navigation[1]	April–December[2]	n/a (2025)[3]	n/a (2024)[3]	1.54 million tons[4]
Flood damages prevented	October–September	$0.1 billion (2025)	$3.8 billion (2024)	$111.8 billion[5]
Energy	August–July	8.5 billion kWh (Aug. 24-July 25)	8.2 billion kWh (Aug. 23-July 24)	9.3 billion kWh[6]

[1] If sand, gravel, and waterway material are included:
6.42 million tons (1967–2023 average)
[2] End of navigation season extended 0 days in 2024 and extended zero days in 2025.
[3] Tonnage data for 2024 and 2025 were not available at the time of publication.
[4] 1967–2023 average. Peak tonnage shipped in 1977 (3.336 million tons)
[5] Total damages prevented (1938–2025)
[6] 1968–2025 Average

A detailed description of the main stem system operations is presented in annual operating reports prepared by and available for distribution from the U.S. Missouri River Basin Water Management Division, U.S. Army Corps of Engineers, Northwestern Division, Omaha, NE.

Energy Generation

There are 14 Federal powerplants located in the Upper Missouri River Basin that are currently operating. Eight of the power plants are owned and operated by Reclamation and have a total capacity of 348,100 kilowatts. The other six are owned and operated by the USACE and have a total capacity of 2,524,350. Energy generated by the 14 power plants is marketed by the Department of Energy.

Total generation in the combined system in WY2025 was 9,120.269 million kilowatt hours (GWh), 400.382 million kilowatt hours less than in WY2024. A summary of the past 10 years of energy generation within the Upper Missouri River Basin is shown in table CET-4 below.

Table CET-4.—Reclamation and USACE energy generation (million kilowatt-hours)

Year	Reclamation	USACE	Total
2025	1,051.610	8,068.659	9,120.269
2024	1,394.193	8,126.458	9,520.651
2023	1,303.438	7,769.779	9,073.217
2022	1,234.317	7,455.864	8,690.181
2021	957.399	9,831.324	10,788.723
2020	1,470.049	11,772.247	13,242.296
2019	1,488.146	12,588.448	14,076.594
2018	1,790.992	11,355.785	13,146.777
2017	1,560.628	9,092.514	10,653.142
2016	1,164.801	7,652.168	8,816.969

A comparison of 2024 and 2025 generation and other data from Missouri Basin Region powerplants is shown in table CET-5. Tables CET-6 through table CET-11 show the monthly generation, power releases, and total downstream releases, respectively, for all Federal plants in the Missouri Basin Region. The annual energy generation for each of the last several years for all Reclamation, USACE, and combined plants is shown graphically in figures CEG-1, CEG-3, and CEG-5, respectively. Monthly generation for each month during the past several years is shown graphically in figures CEG-2, CEG-4, and CEG-6.

Table CET-5.—Annual energy production statistics (million Kwh) for WY2025

Reclamation Powerplants	Installed Capacity (KW)	Million KWh Generated 2023	Million KWh Generated 2024	Water Used for Generation (KAF)	Percent of Total Water Released	KWh per AF	River Release (KAF)	Total Release (KAF)
Canyon Ferry	50,000	280.197	282.067	2,251.146	82.44	125.30	2,565.0	2,730.7
Pilot Butte1	1,600	0.000	0.000	0.000	0.00	N/A	123.2	123.2
Boysen	15,000	78.203	48.271	591.186	88.95	81.65	664.6	664.6
Shoshone	3,000	20.480	19.506	143.762	19.27	135.68		
Buffalo Bill	18,000	70.552	58.641	250.426	33.57	234.17		
Heart Mountain	6,000	21.471	16.982	84.705	11.36	200.48		
Spirit Mountain2	4,500	17.190	16.540	161.762	21.69	102.25		
Total for Buffalo Bill3	**31,500**	**129.693**	**111.669**	**640.655**	**85.89**	**174.30**	**489.6**	**745.9**
Yellowtail	250,000	880.254	609.603	1,743.827	100.00	349.58	1,642.9	1,743.8
Subtotal	**348,100**	**1,368.347**	**1,051.610**	**5,226.813**	**86.99**	**201.20**	**5,485.3**	**6,008.2**
USACE Powerplants								
Fort Peck	185,250	762.705	772.975	4,981.00	100.00	155.18	4,981.0	4,981.0
Garrison	583,300	2,146.115	2,039.566	13,688.00	100.00	149.00	13,688.0	13,688.0
Oahe	786,030	2,128.663	2,191.305	15,001.00	100.00	146.08	15,001.0	15,001.0
Big Bend	517,470	792.022	824.499	15,127.00	100.00	54.51	15,127.0	15,127.0
Fort Randall	320,000	1,563.688	1,527.266	14,792.00	100.00	103.25	14,792.0	14,792.0
Gavins Point	132,300	733.265	713.048	15,311.00	93.39	46.57	16,395.0	16,395.0
Subtotal	**2,524,350**	**8,126.458**	**8,068.659**	**78,900.00**	**98.64**	**102.26**	**79,984.0**	**79,984.0**
BASIN TOTAL	**2,872,450**	**9,494.805**	**9,120.269**	**84,126.81**	**97.83**	**108.41**	**85,469.3**	**85,992.2**

[1] River Release and Total Release at Pilot Butte Reservoir is computed inflow to Pilot Butte Reservoir due to the location of the powerplant at inlet of supply canal.

[2] Spirit Mountain Powerplant is used to dissipate energy in the transition from the pressurized portion of the Shoshone Canyon Conduit to the free flow section of the conduit. Water used for generation at Spirit Mountain Powerplant is then routed to Heart Mountain Canal or used for generation at Heart Mountain Powerplant.

[3] This represents the total for the four separate powerplants at Buffalo Bill Dam.

Table CET-6.—Monthly generation at Reclamation Power powerplants (million Kwh)

Month	Canyon Ferry	Pilot Butte	Boysen	Heart Mountain	Spirit Mountain	Buffalo Bill	Shoshone	Yellowtail	Total
October	20.656	0.000	3.312	1.912	1.674	2.005	0.964	50.695	**81.218**
November	22.207	0.000	5.487	0.000	0.000	0.841	1.652	76.712	**106.899**
December	23.946	0.000	3.768	0.000	0.000	0.010	1.530	48.632	**77.886**
January	25.969	0.000	3.699	0.000	0.000	0.020	1.635	46.373	**77.696**
February	21.532	0.000	2.498	0.000	0.000	0.000	1.466	42.767	**68.263**
March	23.682	0.000	1.350	0.000	0.000	0.000	1.634	46.350	**73.016**
April	24.412	0.000	3.788	1.037	1.127	5.146	1.576	39.377	**76.463**
May	26.756	0.000	4.983	2.350	2.539	10.718	1.691	54.830	**103.867**
June	25.483	0.000	5.553	3.387	2.796	12.009	1.932	60.097	**111.257**
July	25.616	0.000	4.150	2.810	3.032	12.542	2.026	51.957	**102.133**
August	22.675	0.000	5.213	2.821	2.853	8.870	1.838	49.507	**93.777**
September	19.133	0.000	4.470	2.665	2.519	6.480	1.562	42.306	**79.135**
Total	**282.067**	**0.000**	**48.271**	**16.982**	**16.540**	**58.641**	**19.506**	**609.603**	**1,051.610**

Table CET-7.—Water used for power generation (KAF) at Bureau of Reclamation

WY 2025 Month	Canyon Ferry	Boysen	Pilot Butte	Shoshone	Buffalo Bill	Heart Mountain	Spirit Mountain[1]	Yellowtail	Total
October	167.729	39.353	0.000	7.404	11.990	9.046	16.485	141.567	**393.574**
November	180.299	41.541	0.000	0.000	0.000	0.000	0.000	129.081	**350.921**
December	172.316	62.182	0.000	13.355	5.079	0.000	0.000	191.094	**444.026**
January	213.372	42.775	0.000	12.242	0.108	0.000	0.000	133.505	**402.002**
February	178.509	29.254	0.000	11.038	0.000	0.000	0.000	122.201	**341.002**
March	194.604	15.907	0.000	12.676	0.000	0.000	0.000	135.570	**358.758**
April	200.857	47.494	0.000	12.865	19.776	5.579	11.432	121.286	**419.289**
May	213.170	65.355	0.000	13.854	43.949	11.921	25.177	166.523	**539.950**
June	193.980	68.746	0.000	15.838	45.776	16.312	27.060	172.702	**540.415**
July	197.820	50.308	0.000	16.617	50.714	14.363	29.109	150.865	**509.796**
August	180.614	67.595	0.000	15.067	43.001	14.164	27.687	147.788	**495.917**
September	157.876	60.677	0.000	12.805	30.033	13.319	24.812	131.643	**431.164**
TOTAL	**2,251.146**	**591.186**	**0.000**	**143.762**	**250.426**	**84.705**	**161.762**	**1,743.827**	**5,226.813**

[1] Spirit Mountain Powerplant is used to dissipate energy in the transition from the pressurized portion of the Shoshone Canyon Conduit to the free flow section of the conduit. Water used for generation at Spirit Mountain Powerplant is then routed to Heart Mountain Canal or used for generation at Heart Mountain Powerplant.

Table CET-8.—CET - Monthly generation at USACE powerplants (million Kwh)

Month	Fort Peck	Garrison	Oahe	Big Bend	Fort Randall	Gavins Point	Total	Basin Total
October	38.012	134.293	245.183	94.111	201.707	80.635	**793.941**	**875.159**
November	40.018	129.891	194.202	73.724	149.228	57.534	**644.597**	**751.496**
December	52.120	150.624	101.419	41.198	62.995	39.800	**448.156**	**526.042**
January	52.324	185.538	152.832	59.062	71.156	42.103	**563.015**	**640.711**
February	48.271	188.431	131.482	52.925	66.944	38.454	**526.507**	**594.770**
March	51.647	158.346	183.647	66.762	101.305	47.807	**609.514**	**682.530**
April	61.790	156.477	215.030	81.688	149.305	62.676	**726.966**	**803.429**
May	88.302	197.676	217.210	80.184	168.026	78.031	**829.429**	**933.296**
June	87.832	205.093	215.260	78.847	151.189	71.985	**810.206**	**921.463**
July	86.047	202.398	198.213	70.872	141.400	67.822	**766.752**	**868.885**
August	84.464	186.090	184.533	64.075	130.764	62.592	**712.518**	**806.295**
September	82.148	144.709	152.294	61.051	133.247	63.609	**637.058**	**716.193**
TOTAL	**772.975**	**2,039.566**	**2,191.305**	**824.499**	**1,527.266**	**713.048**	**8,068.659**	**9,120.269**

Table CET-9.—CET - Monthly water used for power generation (KAF) at USACE powerplants

WY2025 Month	Fort Peck	Garrison	Oahe	Big Bend	Fort Randall	Gavins Point	TOTAL
October	261.000	865.000	1,685.000	1,695.000	2,053.000	1,758.000	**8,317.000**
November	270.000	840.000	1,328.000	1,312.000	1,599.000	1,213.000	**6,562.000**
December	343.000	990.000	715.000	721.000	652.000	793.000	**4,214.000**
January	337.000	1,249.000	1,050.000	1,056.000	724.000	836.000	**5,252.000**

WY2025 Month	Fort Peck	Garrison	Oahe	Big Bend	Fort Randall	Gavins Point	TOTAL
February	308.000	1,303.000	917.000	944.000	649.000	773.000	**4,894.000**
March	309.000	1,084.000	1,249.000	1,225.000	946.000	1,024.000	**5,837.000**
April	360.000	1,067.000	1,478.000	1,517.000	1,391.000	1,363.000	**7,176.000**
May	657.000	1,351.000	1,485.000	1,508.000	1,563.000	1,698.000	**8,262.000**
June	675.000	1,372.000	1,462.000	1,480.000	1,412.000	1,597.000	**7,998.000**
July	548.000	1,347.000	1,339.000	1,334.000	1,313.000	1,488.000	**7,369.000**
August	556.000	1,246.000	1,254.000	1,208.000	1,230.000	1,371.000	**6,865.000**
September	357.000	974.000	1,039.000	1,127.000	1,260.000	1,397.000	**6,154.000**
TOTAL	**4,981.000**	**13,688.000**	**15,001.000**	**15,127.000**	**14,792.000**	**15,311.000**	**78,900.000**

Table CET-10.—CET - Total water releases (KAF) for WY2025 at Reclamation powerplants

Month	Ferry	Boysen	Pilot Butte	Buffalo Bill	Bull Lake	Anchor	Yellowtail	TOTAL
October	201.683	53.740	0.000	53.298	2.635	0.050	141.567	**452.974**
November	189.036	41.541	0.000	11.482	1.946	0.000	129.081	**373.085**
December	266.281	62.182	0.000	18.618	2.507	0.000	191.094	**540.681**
January	230.488	42.775	0.000	12.535	1.617	0.000	133.505	**420.920**
February	185.516	39.032	0.000	11.364	1.404	0.000	122.201	**359.517**
March	194.982	43.672	0.000	12.856	1.514	0.000	135.570	**388.593**
April	233.310	47.679	0.000	47.934	1.546	0.360	121.286	**452.116**
May	300.197	65.411	16.904	105.833	3.919	1.073	166.523	**659.861**
June	269.412	68.746	33.770	126.862	10.157	3.987	172.702	**685.637**
July	237.971	70.697	35.049	133.678	39.282	4.302	150.865	**671.845**
August	223.864	68.493	34.759	119.006	66.454	0.353	147.788	**660.717**
September	197.919	60.677	2.707	92.463	7.259	0.170	131.643	**492.836**
TOTAL	**2,730.659**	**664.642**	**123.188**	**745.928**	**140.241**	**10.295**	**1,743.827**	**6,158.781**

Table CET-11.—CET - Total water releases (KAF) for WY2025 at USACE powerplants

Month	Fort Peck	Garrison	Oahe	Big Bend	Fort Randall	Gavins Point	TOTAL
October	261.000	865.000	1,685.000	1,695.000	2,053.000	2,068.000	**8,627.000**
November	270.000	840.000	1,328.000	1,312.000	1,599.000	1,730.000	**7,079.000**
December	343.000	990.000	715.000	721.000	652.000	793.000	**4,214.000**
January	337.000	1,249.000	1,050.000	1,056.000	724.000	836.000	**5,252.000**
February	308.000	1,303.000	917.000	944.000	649.000	773.000	**4,894.000**
March	309.000	1,084.000	1,249.000	1,225.000	946.000	1,093.000	**5,906.000**
April	360.000	1,067.000	1,478.000	1,517.000	1,391.000	1,531.000	**7,344.000**
May	657.000	1,351.000	1,485.000	1,508.000	1,563.000	1,698.000	**8,262.000**
June	675.000	1,372.000	1,462.000	1,480.000	1,412.000	1,617.000	**8,018.000**
July	548.000	1,347.000	1,339.000	1,334.000	1,313.000	1,488.000	**7,369.000**

Month	Fort Peck	Garrison	Oahe	Big Bend	Fort Randall	Gavins Point	TOTAL
August	556.000	1,246.000	1,254.000	1,208.000	1,230.000	1,371.000	**6,865.000**
September	357.000	974.000	1,039.000	1,127.000	1,260.000	1,397.000	**6,154.000**
TOTAL	**4,981.000**	**13,688.000**	**15,001.000**	**15,127.000**	**14,792.000**	**16,395.000**	**79,984.000**

Table CET-12.—Total water storage (KAF) for WY2024 and WY2025

Reclamation Reservoirs	Top Of Conservation Capacity 3	Dead And Inactive Capacity	2024 End Year Storage	2025 End Year Storage	2024 Percent Of Average	2025 Percent Of Average
Clark Canyon	174.4	1.1	93.9	53.6	100%	57%
Canyon Ferry	1,891.9	396.0	1,485.2	1,422.6	92%	88%
Helena Valley	10.5	4.6	9.6	9.5	128%	126%
Gibson Reservoir	96.5	0.0	6.7	5.7	28%	24%
Willow Creek	31.8	1.0	7.7	4.2	38%	21%
Pishkun	46.7	16.0	36.1	29.0	111%	90%
Lake Elwell	925.6	554.3	765.5	721.3	97%	91%
Sherburne	66.1	1.9	39.2	29.9	231%	176%
Fresno	92.9	0.4	21.5	36.7	46%	79%
Nelson	79.0	18.1	62.3	61.3	109%	108%
Bull Lake	152.5	0.7	32.3	31.0	43%	41%
Pilot Butte	33.7	3.8	11.8	13.4	65%	75%
Boysen	741.6	219.2	573.1	514.8	96%	86%
Anchor[1]	17.2	0.1	0.5	0.5	145%	162%
Buffalo Bill[2]	646.6	41.7	400.8	359.8	90%	81%
Bighorn Lake	1,020.6	469.9	924.2	884.4	97%	93%
E. A. Patterson	8.6	0.5	6.1	6.2	98%	100%
Lake Tschida	67.1	5.2	55.1	55.7	97%	98%
Jamestown Reservoir	31.5	0.8	29.3	27.2	102%	95%
Shadehill Reservoir	120.2	43.9	80.6	100.9	76%	96%
Angostura Reservoir	123.0	42.2	80.3	61.4	95%	72%
Deerfield Reservoir	15.7	0.2	14.7	14.6	110%	109%
Pactola Reservoir	56.0	1.0	49.9	47.9	108%	103%
Keyhole Reservoir	188.7	6.6	112.0	111.3	126%	126%
Belle Fourche Reservoir	172.9	3.1	80.1	116.3	108%	157%

Reclamation Reservoirs	Top Of Conservation Capacity 3	Dead And Inactive Capacity	2024 End Year Storage	2025 End Year Storage	2024 Percent Of Average	2025 Percent Of Average
Subtotal	**6,811.2**	**1,832.3**	**4,978.4**	**4,719.4**	---	---
U.S. Army Corps Reservoirs						
Fort Peck	17,492.0	4,088.0	13,364.0	12,524.0		
Garrison	21,956.0	4,794.0	18,124.0	16,069.0		
Oahe	21,876.0	5,315.0	16,887.0	16,573.0		
Big Bend	1,749.0	1,631.0	1,681.0	1,670.0		
Fort Randall	4,307.0	1,469.0	3,109.0	3,249.0		
Gavins Point	374.0	295.0	367.0	368.0		
Subtotal	**67,754.0**	**17,592.0**	**53,532.0**	**50,453.0**		
Total Upper Missouri Basin	**74,565.2**	**19,424.3**	**58,510.4**	**55,172.4**		

[1] Percent of average content of Anchor Reservoir is based on a 22-year average, 1991-2012.
[2] Percent of average content of Buffalo Bill Reservoir is based on a 20-year average, 1993-2012; to reflect the operation of the reservoir since 1992 when the dam was raised and the capacity of the reservoir was increased to 646,565 acre-feet.
[3] Includes joint-use space.

Table CET-13.—CET - WY2025 end of month reservoir contents (KAF)

Reclamation Reservoirs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Clark Canyon	103.0	114.1	123.7	131.5	138.1	145.1	147.2	141.4	113.3	82.7	62.2	53.6
% Of Average	100%	102%	105%	107%	108%	107%	103%	102%	86%	75%	66%	57%
Canyon Ferry	1,455.7	1,463.0	1,475.1	1,415.2	1,402.4	1,453.3	1,495.3	1,700.2	1,762.0	1,636.8	1,508.6	1,422.6
% Of Average	89%	88%	92%	92%	94%	99%	101%	103%	95%	92%	90%	88%
Helena Valley	9.0	8.5	7.9	7.4	6.9	6.5	9.6	9.2	10.3	7.5	10.0	9.5
% Of Average	129%	126%	122%	121%	121%	115%	104%	100%	115%	101%	124%	126%
Gibson Reservoir	5.6	4.9	5.3	5.0	5.0	10.1	33.4	76.7	44.4	5.5	5.6	5.7
% Of Average	19%	15%	15%	13%	12%	21%	53%	85%	49%	11%	21%	24%
Willow Creek	10.7	12.2	13.0	13.2	13.5	13.6	15.8	20.2	13.4	5.6	4.2	4.2
% Of Average	0%	57%	59%	59%	59%	58%	62%	71%	46%	23%	20%	21%
Pishkun	35.0	34.4	34.1	34.1	34.2	34.1	34.1	40.3	41.7	30.3	29.8	29.0
% Of Average	0%	100%	100%	101%	101%	100%	85%	88%	100%	82%	83%	90%
Lake Elwell	742.1	722.7	707.5	691.2	684.4	686.9	692.6	748.9	765.8	757.8	742.7	721.3
% Of Average	98%	96%	96%	96%	96%	96%	94%	92%	87%	88%	90%	91%
Sherburne	29.7	32.4	34.9	36.2	37.6	42.0	51.5	61.2	62.9	54.4	37.0	29.9
% Of Average	149%	129%	125%	117%	113%	146%	253%	178%	112%	111%	132%	176%
Fresno	18.8	16.5	14.2	11.9	29.7	40.7	43.0	27.4	8.7	18.7	39.0	36.7
% Of Average	41%	36%	33%	28%	68%	69%	57%	38%	11%	32%	86%	79%
Nelson	58.9	56.7	55.2	53.6	54.2	68.0	75.1	59.3	51.2	55.2	65.0	61.3
% Of Average	100%	98%	99%	99%	102%	125%	122%	98%	84%	100%	120%	108%
Bull Lake	34.4	35.4	35.7	35.7	36.2	37.2	40.7	65.7	105.6	86.6	30.3	31.0
% Of Average	46%	47%	47%	47%	48%	49%	54%	74%	84%	67%	29%	41%
Pilot Butte	27.4	28.6	28.4	28.4	28.3	28.3	28.9	25.6	27.3	23.4	14.3	13.4
% Of Average	103%	103%	103%	102%	101%	96%	94%	95%	92%	92%	67%	75%
Boysen	547.3	544.0	536.4	520.0	512.2	519.4	514.2	546.1	621.0	587.3	549.7	514.8
% Of Average	92%	92%	94%	93%	94%	96%	98%	99%	95%	90%	89%	86%
Anchor1	0.5	0.5	0.5	0.5	0.5	0.7	0.6	2.9	4.0	0.6	0.5	0.5
% Of Average	171%	203%	203%	229%	204%	185%	128%	192%	118%	28%	88%	162%
Buffalo Bill2	369.0	372.0	374.3	372.3	374.2	386.1	382.0	465.6	592.7	530.2	437.8	359.8
% Of Average	87%	87%	88%	88%	89%	93%	97%	106%	104%	92%	86%	81%
Bighorn Lake	923.7	903.2	876.7	836.7	804.3	798.7	816.9	892.8	934.1	901.9	866.1	884.4

Reclamation Reservoirs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
% Of Average	96%	96%	99%	99%	99%	99%	104%	103%	94%	92%	92%	93%
E. A. Patterson	5.8	5.9	6.0	6.1	7.1	7.6	7.7	8.5	7.7	8.5	6.6	6.2
% Of Average	98%	100%	102%	103%	111%	97%	97%	110%	101%	119%	100%	100%
Lake Tschida	52.6	52.8	53.3	53.8	54.1	58.2	59.8	67.8	62.5	59.2	58.6	55.7
% Of Average	92%	92%	93%	94%	91%	86%	91%	104%	96%	96%	101%	98%
Jamestown Reservoir	27.4	27.3	26.5	26.5	27.0	28.2	33.0	30.7	30.8	32.5	29.6	27.2
% Of Average	102%	103%	100%	99%	100%	78%	58%	68%	83%	96%	91%	95%
Shadehill Reservoir	80.2	79.6	79.3	79.4	79.2	86.5	88.7	98.4	102.5	105.5	102.5	100.9
% Of Average	78%	79%	79%	81%	78%	75%	76%	84%	88%	93%	93%	96%
Angostura Reservoir	80.6	82.1	84.7	86.5	88.3	91.7	93.1	90.8	87.9	79.2	66.5	61.4
% Of Average	93%	94%	95%	95%	92%	90%	88%	83%	81%	80%	75%	72%
Deerfield Reservoir	14.3	14.1	14.5	14.8	15.2	15.2	14.9	14.7	14.8	14.6	14.8	14.6
% Of Average	107%	104%	105%	106%	108%	106%	104%	102%	103%	104%	109%	109%
Pactola Reservoir	48.7	48.0	47.2	46.6	46.2	46.6	47.6	48.5	48.7	48.9	48.8	47.9
% Of Average	105%	102%	101%	100%	99%	98%	98%	97%	97%	101%	104%	103%
Keyhole Reservoir	113.1	112.3	112.5	112.9	114.4	117.1	117.6	118.2	117.5	116.1	113.8	111.3
% Of Average	128%	128%	128%	127%	125%	120%	119%	116%	116%	121%	125%	126%
Belle Fourche Reservoir	87.6	96.4	106.6	115.6	124.5	139.5	149.6	160.1	151.1	148.9	130.6	116.3
% Of Average	106%	104%	105%	105%	104%	104%	103%	103%	101%	126%	152%	157%
Corps Reservoirs												
Fort Peck Reservoir	13,322	13,266	13,224	13,159	13,294	13,487	13,488	13,515	13,384	13,164	12,873	12,524
Garrison Reservoir	17,771	17,418	17,044	16,356	15,638	15,945	15,762	16,277	17,028	16,781	16,331	16,069
Oahe Reservoir	15,930	15,430	15,621	15,706	16,132	16,122	15,739	16,131	16,180	16,241	16,307	16,573

Reclamation Reservoirs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Big Bend Reservoir	1,662	1,684	1,679	1,663	1,654	1,684	1,676	1,692	1,677	1,657	1,692	1,670
Fort Randall Reservoir	2,577	2,237	2,310	2,641	3,017	3,313	3,460	3,423	3,478	3,481	3,431	3,249
Gavins Point Reservoir	366	370	375	355	345	340	343	342	342	332	351	368

[1] Percent of average content of Anchor Reservoir is based on a 22-year average, 1991-2012; this is due to the availability of data for Anchor Reservoir.
[2] Percent of average content of Buffalo Bill Reservoir is based on a 20-year average, 1993-2012; to reflect the operation of the reservoir since 1992 when the dam was raised and the capacity of the reservoir was increased.

Table CET-14.—CET - WY2025 monthly inflows (KAF) into Bureau of Reclamation Reservoirs

Reclamation Reservoirs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Clark Canyon	24.9	24.5	18.1	13.9	13.9	16.0	19.4	15.6	11.2	14.4	11.3	12.4
% Of Average	119%	122%	109%	97%	110%	98%	114%	74%	35%	55%	60%	69%
Canyon Ferry	251.3	252.5	218.0	176.1	238.0	252.8	301.5	364.5	454.0	142.8	112.0	129.8
% Of Average	99%	95%	100%	82%	115%	100%	98%	73%	66%	49%	73%	71%
Helena Valley	-0.3	-0.3	-0.3	-0.3	-0.1	-0.2	2.3	8.8	15.1	15.8	18.1	12.4
% Of Average	0%	0%	0%	0%	0%	-3%	0%	0%	0%	0%	0%	0%
Gibson Reservoir	10.0	9.3	7.9	7.7	7.5	10.3	35.3	75.3	65.9	23.3	12.5	9.5
% Of Average	62%	56%	58%	64%	70%	71%	84%	51%	44%	41%	52%	55%
Willow Creek	1.4	3.5	3.5	0.3	0.6	0.3	0.4	4.1	0.9	0.0	-0.1	2.1
% Of Average	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pishkun	-0.4	-0.3	-0.3	-0.0	0.1	-0.2	-0.1	14.3	75.4	79.6	2.1	-0.6
% Of Average	-0%	-0%	0%	0%	-0%	-0%	-0%	0%	0%	0%	0%	-0%
Lake Elwell	8.4	14.9	13.8	7.8	23.8	25.6	44.2	76.0	55.0	14.0	6.6	7.0
% Of Average	50%	70%	81%	49%	110%	66%	84%	61%	41%	33%	54%	61%
Sherburne	5.2	6.5	8.4	3.4	4.9	3.7	10.5	26.6	29.3	16.2	7.8	3.7
% Of Average	79%	94%	247%	114%	210%	105%	97%	86%	79%	87%	89%	61%
Fresno	1.9	2.0	1.3	0.3	3.7	10.6	17.2	60.1	20.6	-5.9	-0.1	1.0
% Of Average	26%	89%	153%	33%	97%	45%	58%	140%	42%	-17%	-0%	5%
Nelson	0.1	-2.3	-2.1	-1.8	-0.5	11.8	7.4	1.7	6.4	4.9	2.5	-2.3
% Of Average	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	-0%
Bull Lake	8.6	4.5	2.5	1.5	1.8	2.2	7.2	21.2	71.8	26.9	13.4	4.5
% Of Average	154%	143%	103%	71%	115%	120%	192%	76%	117%	58%	64%	48%
Pilot Butte	6.2	-0.2	-0.6	-0.1	0.0	0.5	7.7	17.8	35.0	38.9	28.5	17.9
% Of Average	56%	-18%	-2052%	-41%	18%	33%	110%	75%	94%	94%	88%	76%
Boysen	92.6	62.3	50.5	37.4	50.2	66.4	62.6	97.0	247.3	49.8	38.6	38.7
% Of Average	157%	127%	134%	102%	134%	128%	128%	81%	97%	38%	68%	74%
Anchor1	0.5	-0.2	-0.4	-0.1	-0.0	0.4	0.8	2.5	6.0	-0.4	-0.2	0.2

Reclamation Reservoirs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
% Of Average	0%	-0%	-0%	-0%	-0%	0%	0%	0%	0%	-0%	-0%	0%
Buffalo Bill2	53.3	39.1	22.0	17.0	18.6	26.0	63.9	140.2	325.0	89.8	26.9	22.0
% Of Average	207%	183%	140%	116%	142%	137%	156%	88%	108%	56%	60%	88%
Bighorn Lake	241.8	176.0	152.7	135.1	159.6	158.6	263.8	348.5	382.7	139.8	154.7	162.2
% Of Average	144%	136%	140%	122%	143%	107%	186%	137%	94%	55%	102%	98%
E. A. Patterson	0.1	0.4	0.3	0.3	0.8	1.1	0.5	0.3	0.2	-0.3	-0.2	-0.4
% Of Average	30%	158%	225%	111%	48%	16%	15%	25%	11%	-25%	-37%	-246%
Lake Tschida	1.7	3.4	2.3	0.9	6.1	9.3	6.0	3.8	2.0	0.9	-0.2	-0.5
% Of Average	113%	229%	243%	112%	127%	32%	36%	69%	28%	26%	-15%	-189%
Jamestown Reservoir	6.6	2.3	1.4	0.6	1.1	3.5	3.5	12.1	27.5	29.7	16.8	11.6
% Of Average	409%	179%	228%	211%	260%	32%	10%	131%	613%	536%	342%	574%
Shadehill Reservoir	-3.5	-1.4	-0.9	-0.7	0.3	-0.3	0.6	-0.8	0.0	-0.8	-7.1	-4.8
% Of Average	-331%	-123%	-99%	-78%	6%	-1%	3%	-6%	0%	-18%	-865%	1915%
Angostura Reservoir	9.6	3.3	4.5	3.7	6.3	3.2	7.1	6.1	0.9	0.2	0.6	0.1
% Of Average	397%	104%	227%	162%	125%	28%	84%	46%	6%	6%	38%	6%
Deerfield Reservoir	0.9	1.0	0.9	0.7	0.8	1.0	1.0	1.2	0.6	0.6	0.7	0.7
% Of Average	123%	141%	127%	104%	137%	96%	76%	81%	46%	63%	81%	97%
Pactola Reservoir	2.6	2.4	2.3	2.3	2.6	2.3	3.3	3.9	2.8	1.8	1.6	1.2
% Of Average	120%	130%	155%	147%	169%	82%	73%	56%	42%	48%	56%	56%
Keyhole Reservoir	-0.6	-0.5	-0.1	0.1	0.4	-0.3	0.4	3.5	-3.2	-3.6	-4.0	-4.5
% Of Average	-2236%	1811%	-36%	14%	16%	-4%	20%	87%	-196%	446%	220%	318%
Belle Fourche Reservoir	-0.7	-1.6	-0.9	-0.1	9.3	11.5	3.1	9.9	7.4	-0.8	4.6	5.5

Reclamation Reservoirs	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
% Of Average	-6%	-16%	-10%	-1%	104%	81%	27%	59%	71%	-16%	214%	115%

[1] Negative values are the result of calculated inflows.

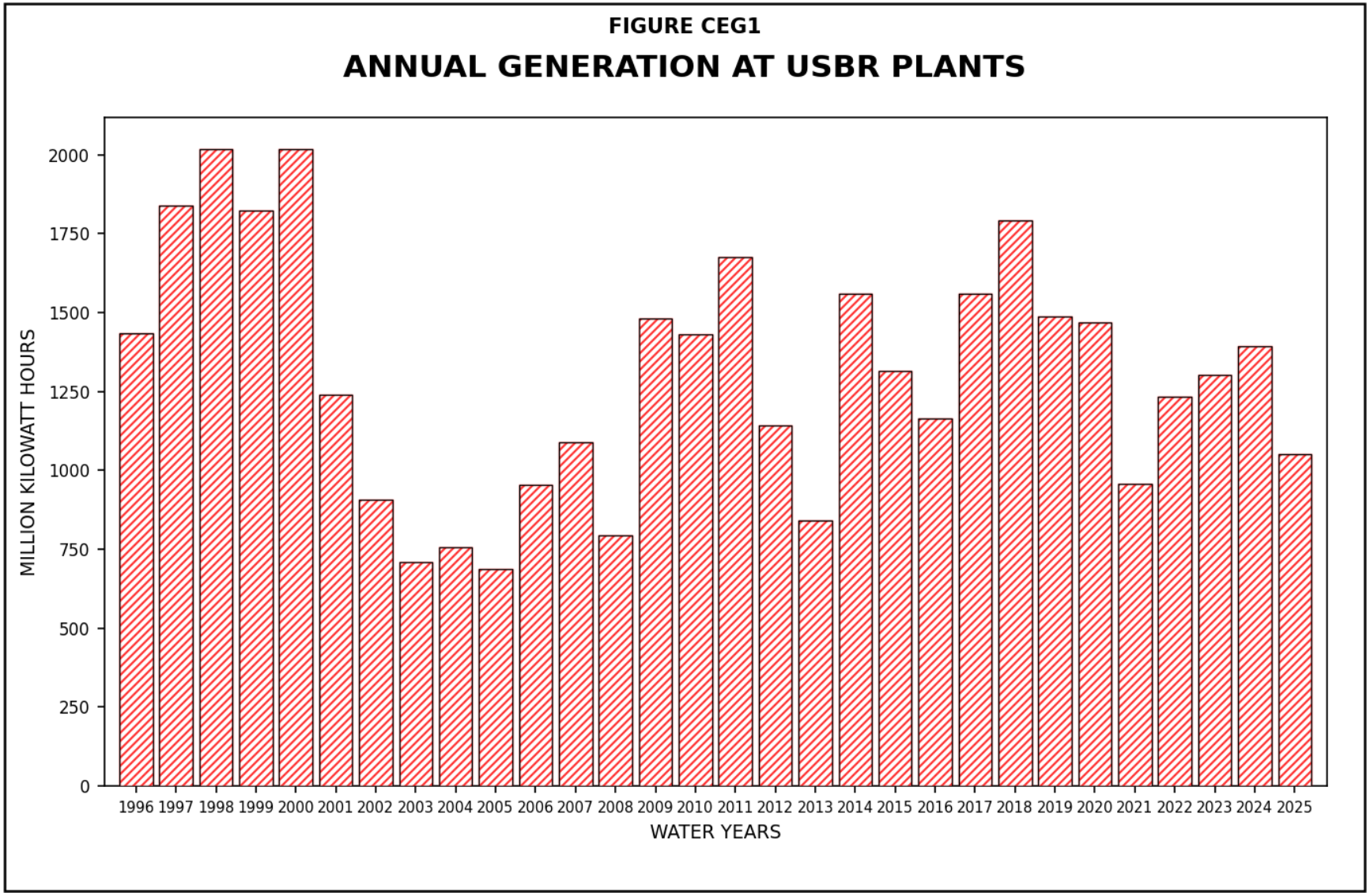


Figure CEG-1.—CEG - Annual generation at Bureau of Reclamation powerplants.

FIGURE CEG2

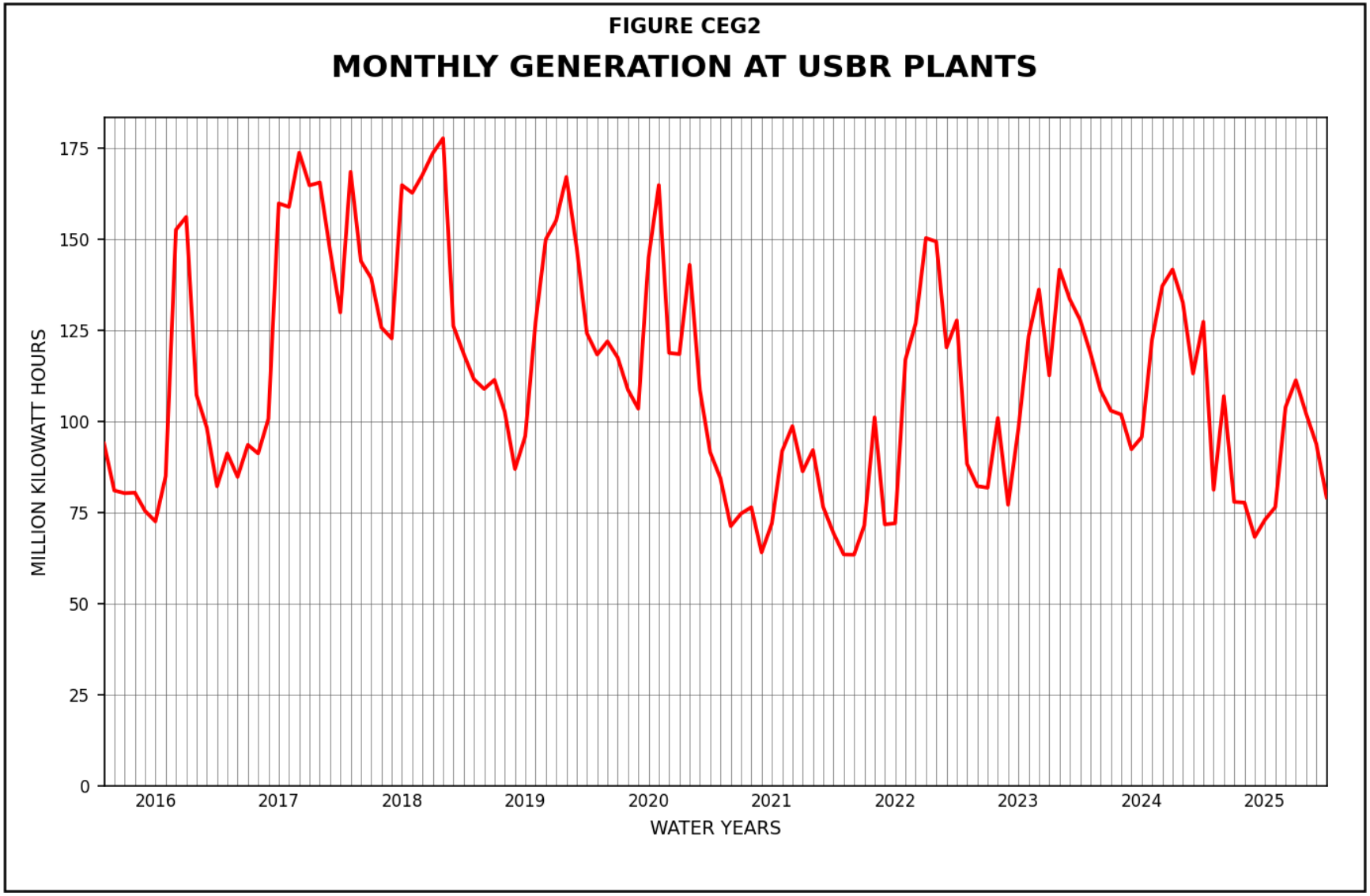


Figure CEG-2.—CEG - Monthly generation at Bureau of Reclamation powerplants.

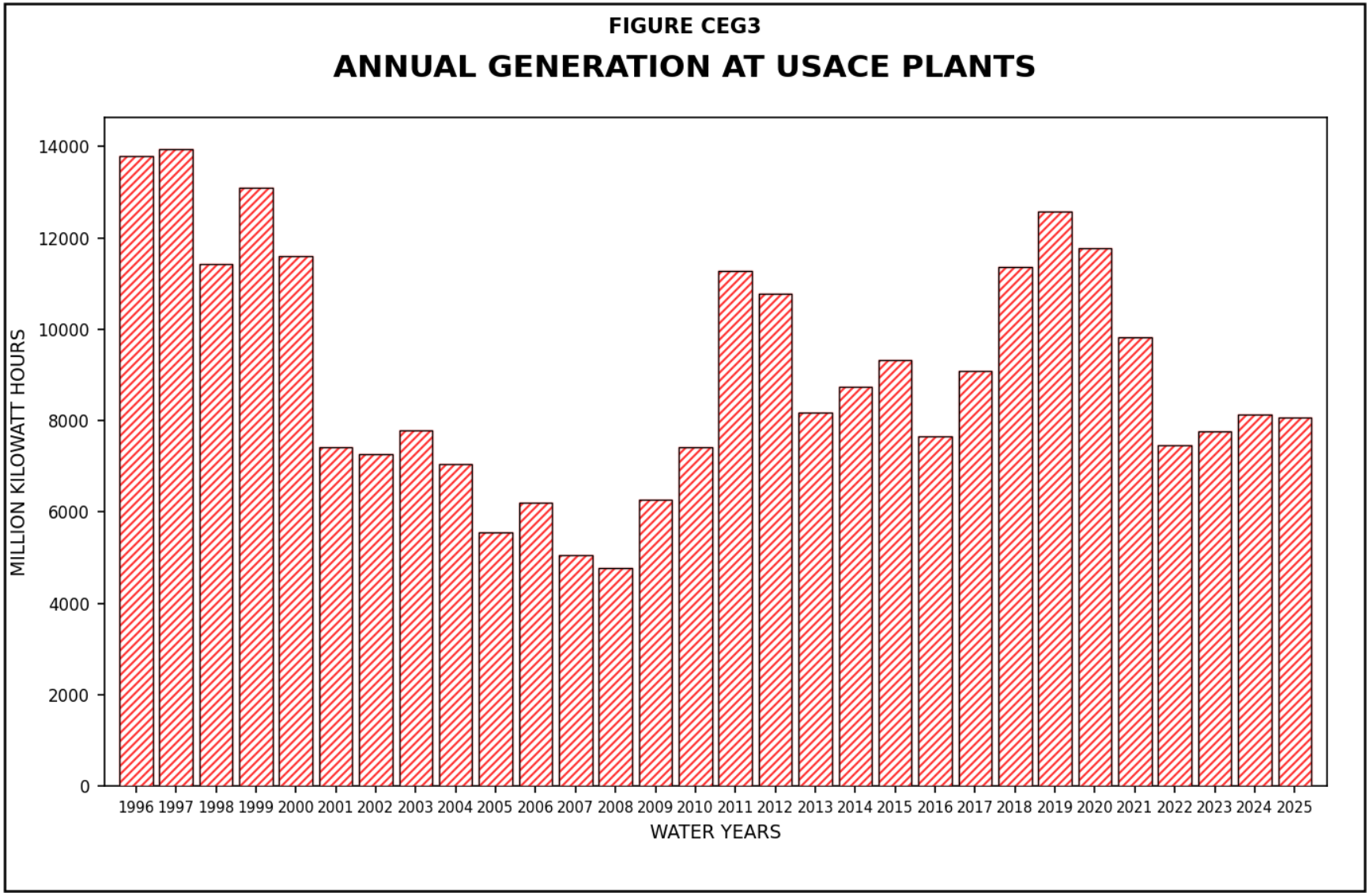


Figure CEG-3.—CEG - Annual generation at USACE powerplants.

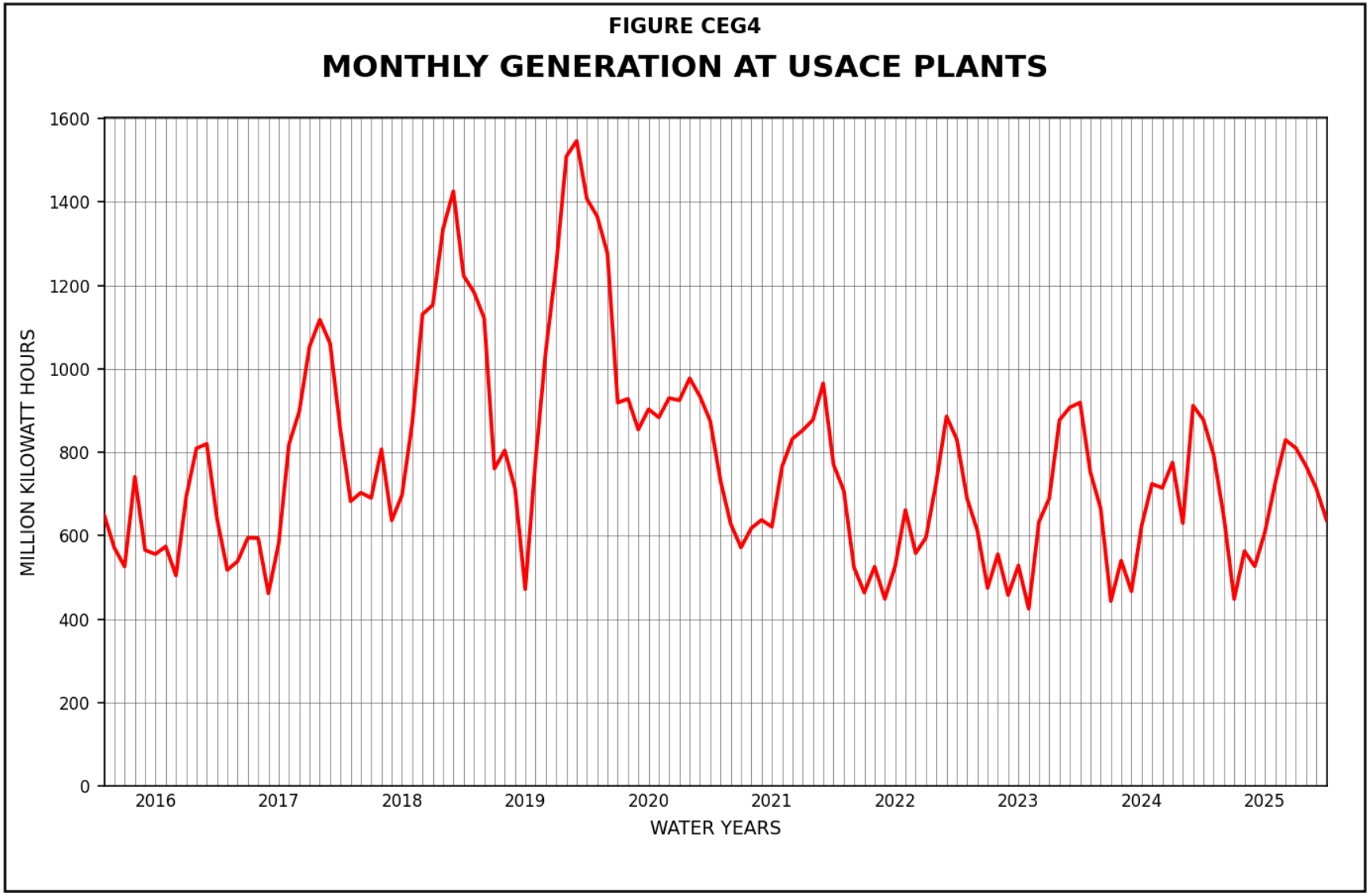


Figure CEG-4.—CEG - Monthly generation at USACE powerplants.

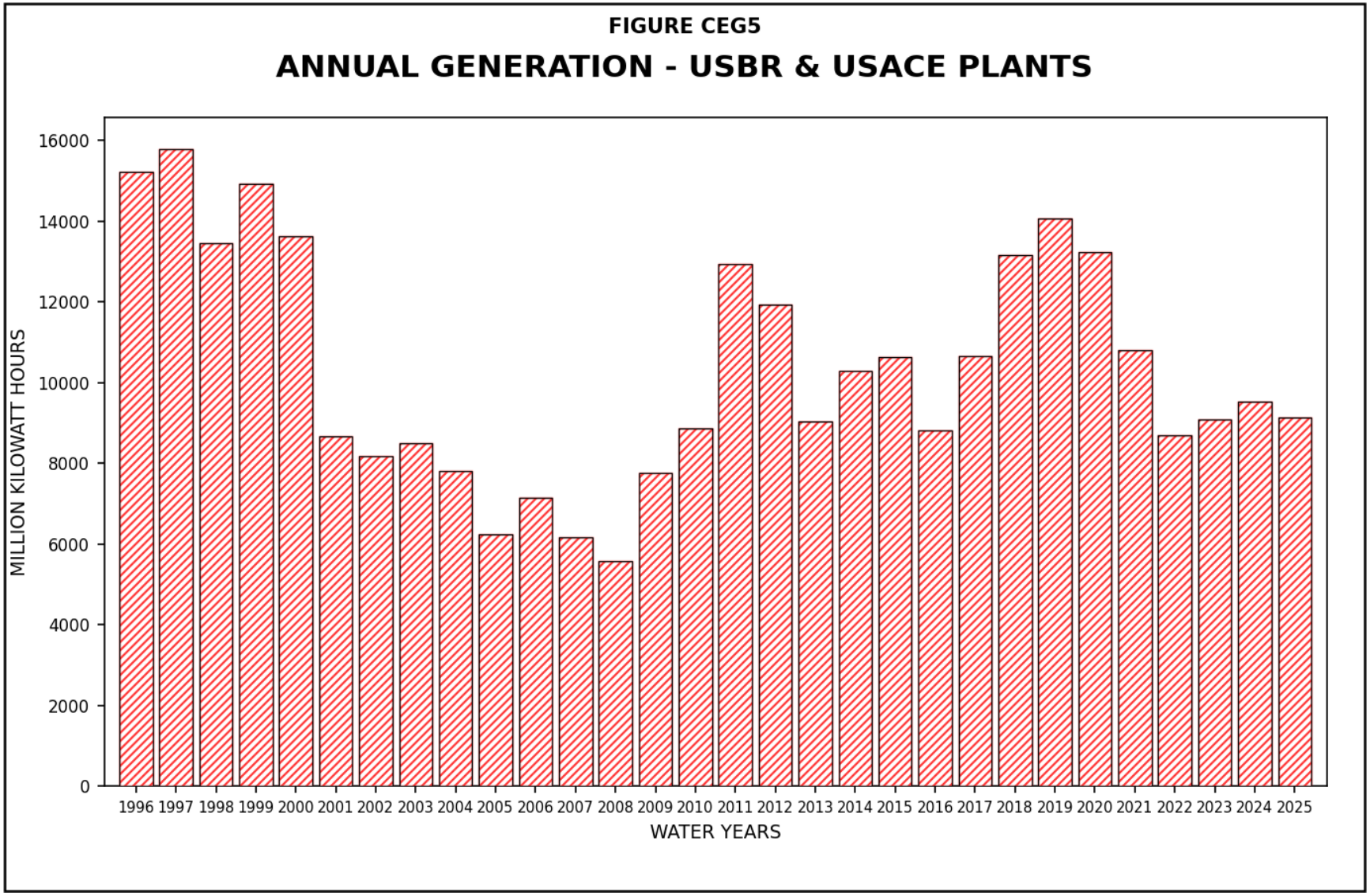


Figure CEG-5.—CEG - Annual generation at Reclamation and USACE powerplants.

FIGURE CEG6

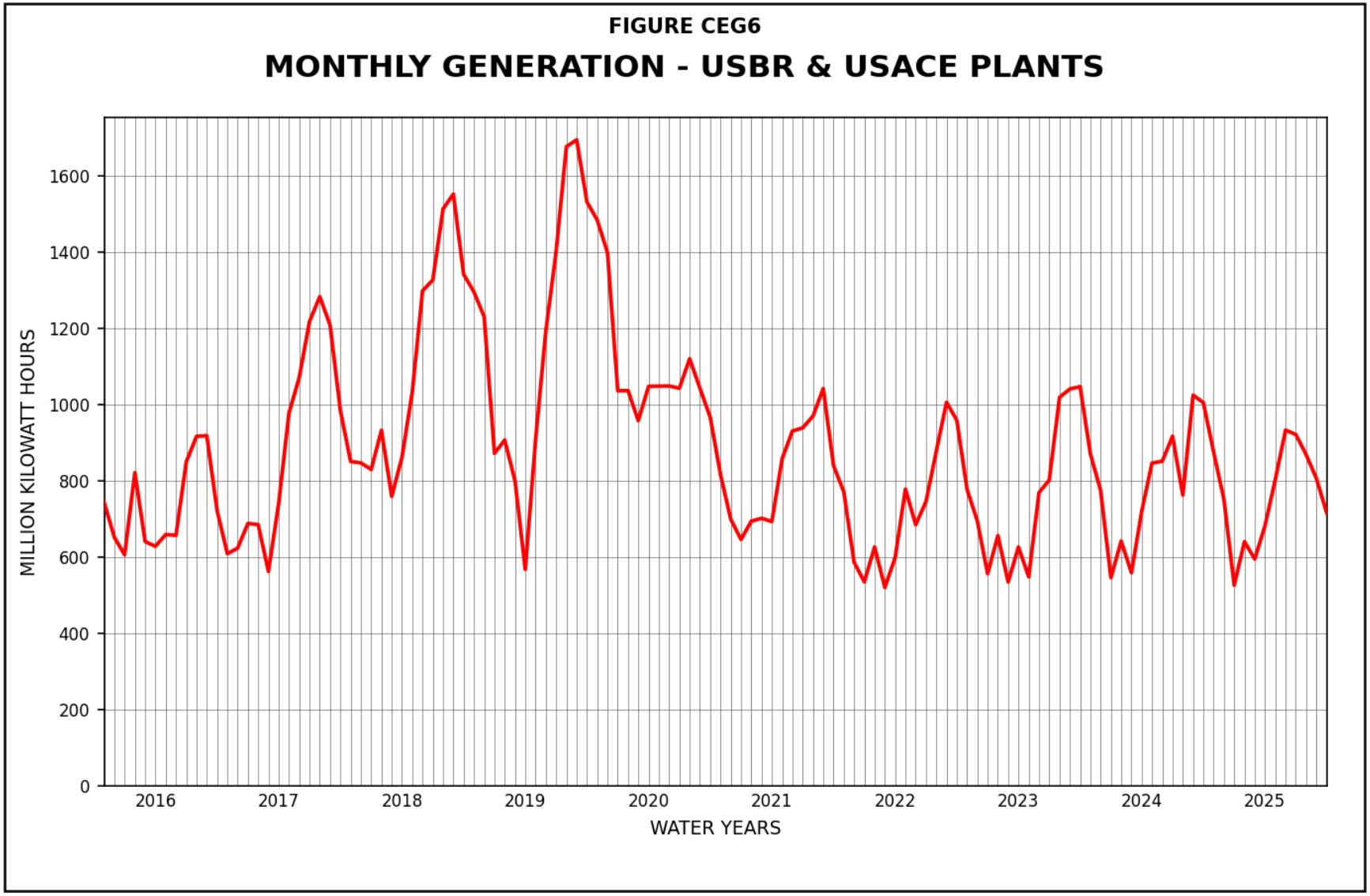


Figure CEG-6.—CEG - Monthly generation at Reclamation and USACE powerplants.