BUREAU OF RECLAMATION

American River Group

1:30 PM – 3:30 PM
Conference Line: +1 (321) 209-6143; Access Code: 985 598 947#
Webinar: Join Microsoft Teams Meeting

Thursday, July 17, 2025

Agenda

1. Introductions
2. Announcements
3. Housekeeping
4. Fisheries Update
    a. CDFW
    b. CFS
    c. PSMFC
5. Operations Forecast
    a. SMUD
    b. PCWA
6. Central Valley Operations
7. Discussion
    a. Power Bypass SDM Update
8. Next Meetings:
    a. Power Bypass SDM Meeting – Wednesday July 30, 1:00-3:00
    b. Regular Monthly ARG Meeting - Thursday, August 21, 1:30-3:30

Lower American River Dissolved Oxygen Monitoring

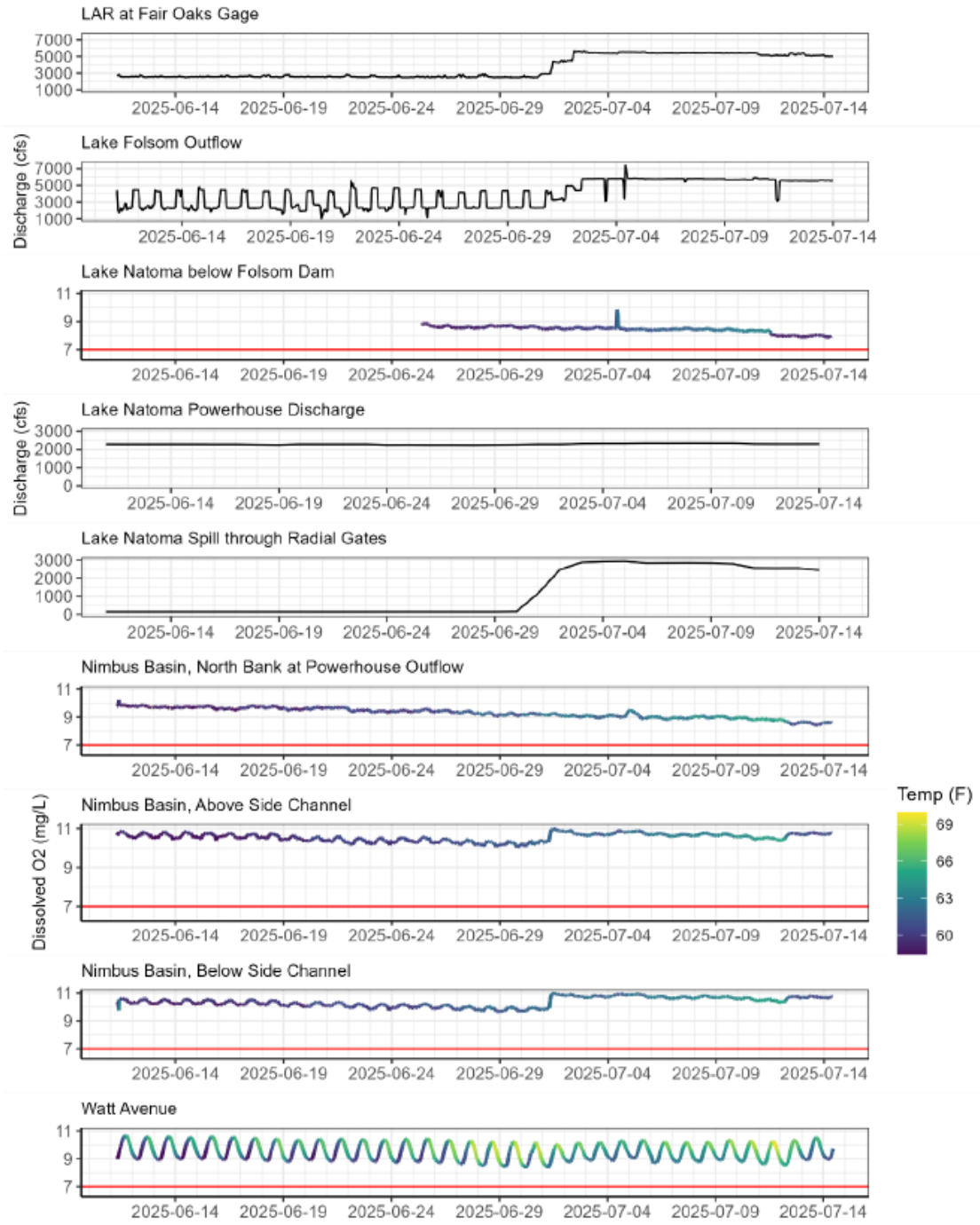

Figure 1. Dissolved oxygen through July 14 2025

Figure 1 is a series of line graphs. Each line graph is at different locations along the lower American River depicting discharge, dissolved oxygen gages, and temperature at the Fair Oaks Gage, Lake Natoma Powerhouse discharge and spill through radial gates, Nimbus basin outflow and above side channel dissolved oxygen.

The dissolved oxygen logger in Lake Natoma below Folsom Dam was installed on June 25 and downloaded along with the rest of the loggers on July 14.

Dissolved oxygen levels are relatively steady but continue to trend slightly down. Increased LAR flow releases included an increase in spill over the top of Nimbus Dam. At the sites influenced by spill (Nimbus Basin Above and Below Side Channel), dissolved oxygen concentrations increased slightly following the flow increase. In Natoma and Nimbus Basin at the Powerhouse Outflow, sites that are not influenced by Nimbus Dam spill, dissolved oxygen levels continued to decline, despite cooler water temperatures at all sites at the end of the download period. The Lake Natoma logger recorded lower dissolved oxygen levels than any of the loggers in Nimbus Basin and is currently at about 8 mg/L, however the Nimbus at Powerhouse Outflow is only slightly higher at about 8.5 mg/L.

Snorkel Surveys

Surveys concluded for 2025 season. Final report and upload to EDI is in progress

Steelhead Spawning and Stranding Surveys

Surveys concluded for 2025 season. Final report and upload to EDI is in progress

American River Group – SMUD Update 07/15/2025

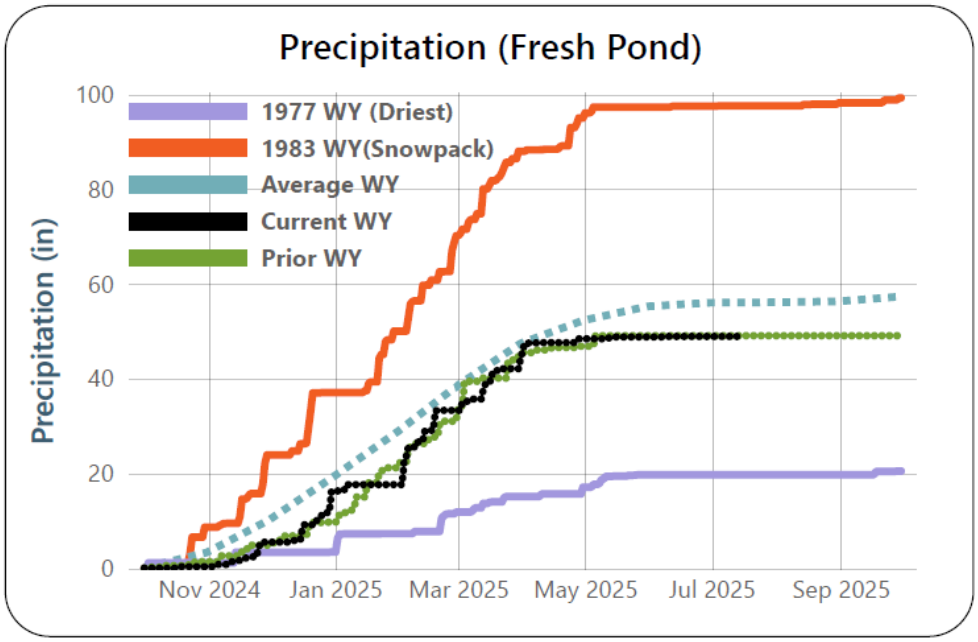

Figure 2. Fresh Pond Precipitation

Figure 2 is a line graph of fresh pond precipitation in inches for November 2024 – September 2025. It includes precipitation data from the driest water year (1977), 1983's water year snowpack, average, current, and prior water year. The current precipitation is 87.2% average to date and 85.3 water year average percentage.

Table 1. Fresh Pond Precipitation

Month	Current Water Year	Historical Average	% of Historical Average
October	0.31	3.30	9%
November	5.17	6.87	75%
December	10.81	9.14	118%
January	1.34	9.55	14%
February	15.66	9.29	169%
March	11.00	9.27	119%
April	4.10	4.84	85%
May	0.40	2.97	13%
June	0.10	0.79	13%
July	0.00	0.08	0%
August	0.00	0.20	0%
September	0.00	1.02	0%
Total	48.89	57.32	85%

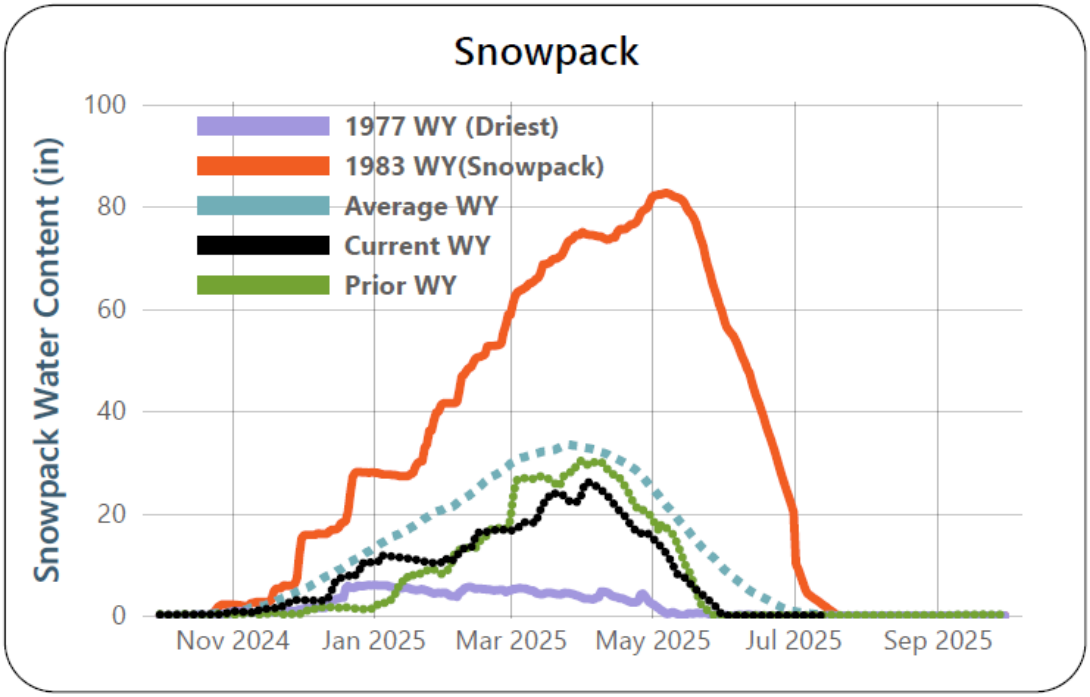

Figure 3. July 2025 Snowpack

Figure 3 is a line graph of snowpack water content in inches for November 2024-September 2025. It includes data from the driest water year (2015), 1983's water year snowpack, average, current, and prior water year. Runoff into the storage reservoir basins is 23.3% average to date with a 0.1% April 1 average.

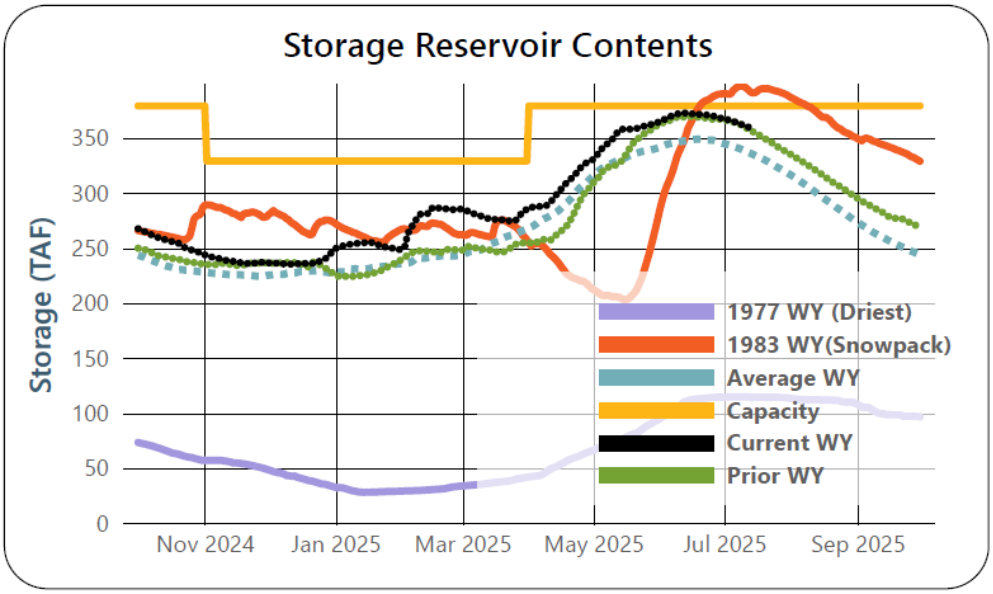

Figure 4. Storage Reservoir Contents

Figure 4 is a line graph of SMUD storage reservoir contents for November 2024 to September 2025. It includes data from the driest water year (1977), 1983's water year snowpack, average, current, and prior water year. The total capacity of the reservoir network is also shown.

Table 2. SMUD Storage Reservoirs

Reservoir	Capacity Acre-ft	Current Acre-ft	Current % Full	Prior Year Acre-ft	Prior Year % Full	Hist. Avg (Acre-ft)	Hist. Avg (% full)
Loon Lake Reservoir	69,310	63,632	91.8%	63,270	91%	61,444	89%
Ice House Reservoir	43,500	39,194	90.1%	39,008	90%	38,243	88%
Union Valley Reservoir	266,370	254,373	95.5%	252,907	95%	235,237	88%
Total Reservoir Storage	379,180	357,199	94.2%	355,185	94%	334,924	88%

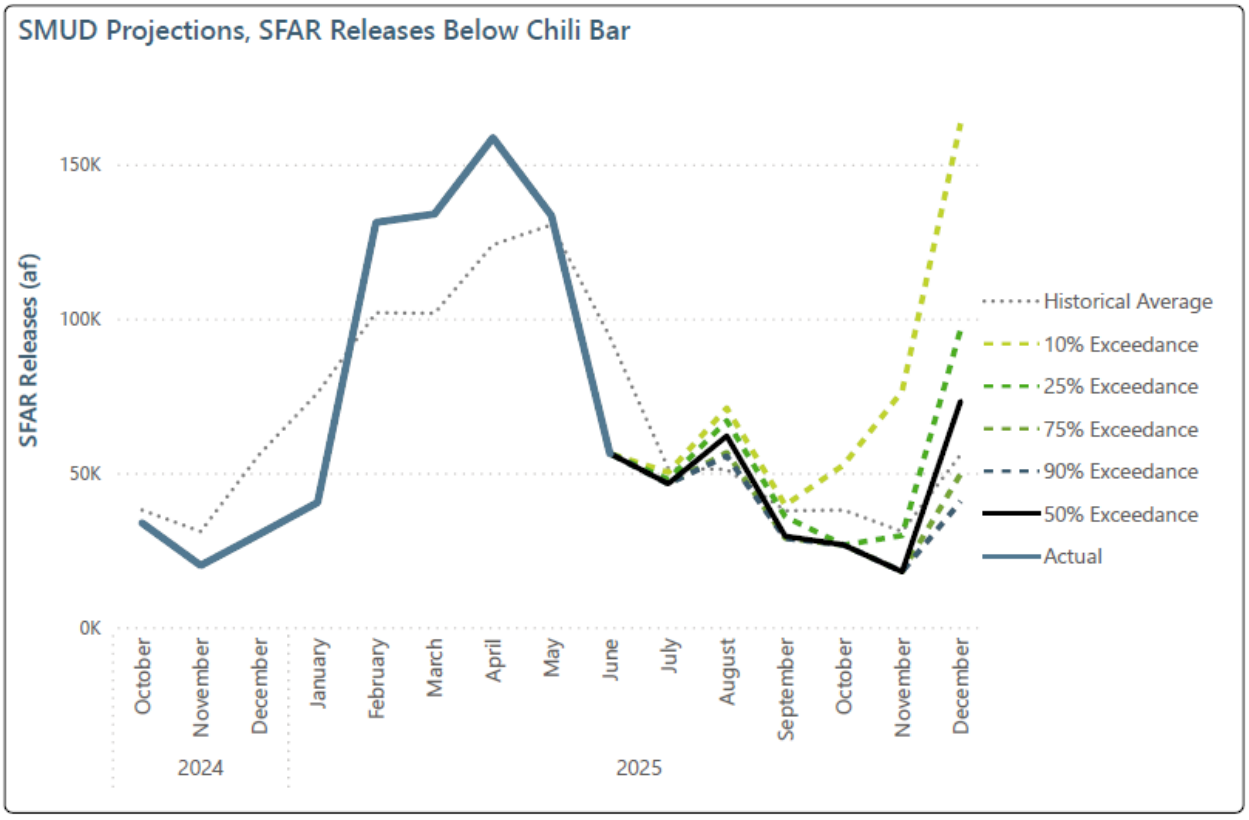

Figure 5. Chili Bar releases into the South Fork American River

Figure 5 is a line graph of observed and projected releases below Chili Bar from October 2024 to December 2025. The graph includes a last 10-year average, actual prior water year data, and projections of 90%, 75%, 50%, 25%, and 10% likelihood.

Table 3. Chili Bar releases into the South Fork American River

Type (Actual or Forecast	Date	Daily Mean Release Rate (cfs)	Monthly Total Release (acre-ft)	Monthly Total Release (90% Exceedance)	Monthly Total Release (10% Exceedance)
Actual	Oct-24	550	33,751	33,751	33,751
Actual	Nov-24	337	20,015	20,015	20,015
Actual	Dec-24	491	30,111	30,111	30,111
Actual	Jan-25	659	40,419	40,419	40,419
Actual	Feb-25	2,367	131,224	131,224	131,224
Actual	Mar-25	2,182	133,933	133,933	133,933
Actual	Apr-25	2,671	158,666	158,666	158,666
Actual	May-25	2,174	133,433	133,433	133,433
Actual	Jun-25	948	56,321	56,321	56,321
Forecast	Jul-25	758	46,527	46,466	50,207
Forecast	Aug-25	1,010	61,986	55,500	71,022

Type (Actual or Forecast	Date	Daily Mean Release Rate (cfs)	Monthly Total Release (acre-ft)	Monthly Total Release (90% Exceedance)	Monthly Total Release (10% Exceedance)
Forecast	Sep-25	497	29,503	28,804	39,563
Forecast	Oct-25	434	26,667	26,667	52,622
Forecast	Nov-25	303	17,991	17,991	76,471
Forecast	Dec-25	1,193	73,248	40,783	163,271

PCWA MFP Operations Overview for American River Group

Real Time Data as of July 17, 2025

- French Meadows Storage = 115,000 AF of 136,405 AF = 85% Capacity
    - MFAR above FM Inflow (R24) =7-day AVG ~15 cfs
- Hell Hole Storage = 159,000 AF of 207,590 AF = 76% Capacity
    - Five Lakes Inflow (R23) = 7-day AVG ~10 cfs
    - Rubicon Inflow (R22) = 7-day AVG ~10 cfs
- Combined Storage (FM+HH) = 274,000 AF/342,590 AF = 80% Capacity; ~99% of Historical AVG
- MFAR @ R11: 7-day daily average ~550 cfs
- NFAR @ ARPS: 7-day daily average ~650 cfs
- Currently operating MFP in storage conservation mode.
- Combined storage for the last 14 days => -13,000 AF
- Combined storage on on 7/17/24 = 278 TAF; 100% of HISTORICAL AVG

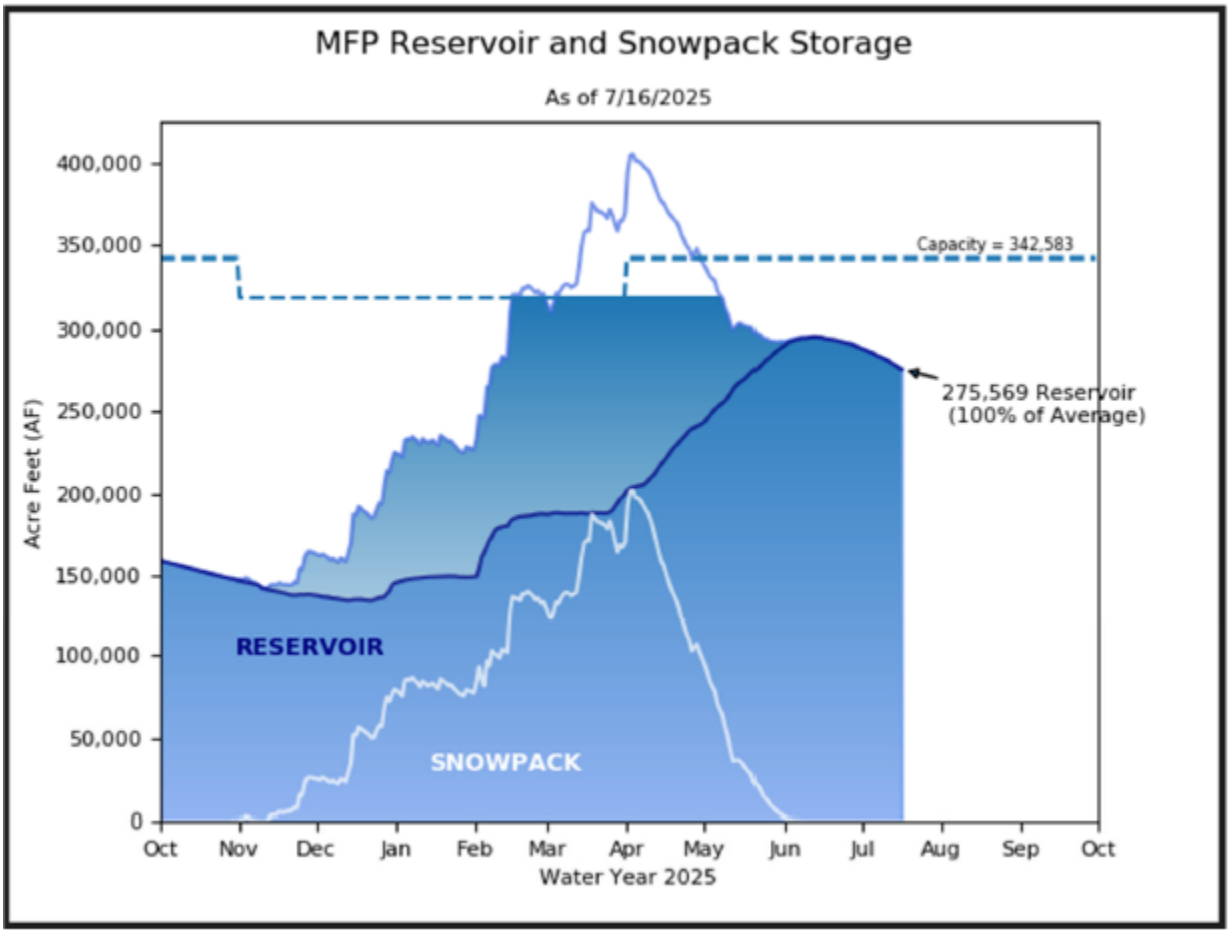

Figure 6. MFP Reservoir and Snowpack Storage

Figure 6 is a line graph depicting the MFP reservoir capacity in acre feet and snowpack contributions as of July 16, 2025. The current capacity is shown by different shadings of blue. Each different shading represents the reservoir and snowpack contributions. The capacity of the reservoir is shown by a dotted blue line. The reservoir level is currently 275,569 acre-feet or 100% of the average.

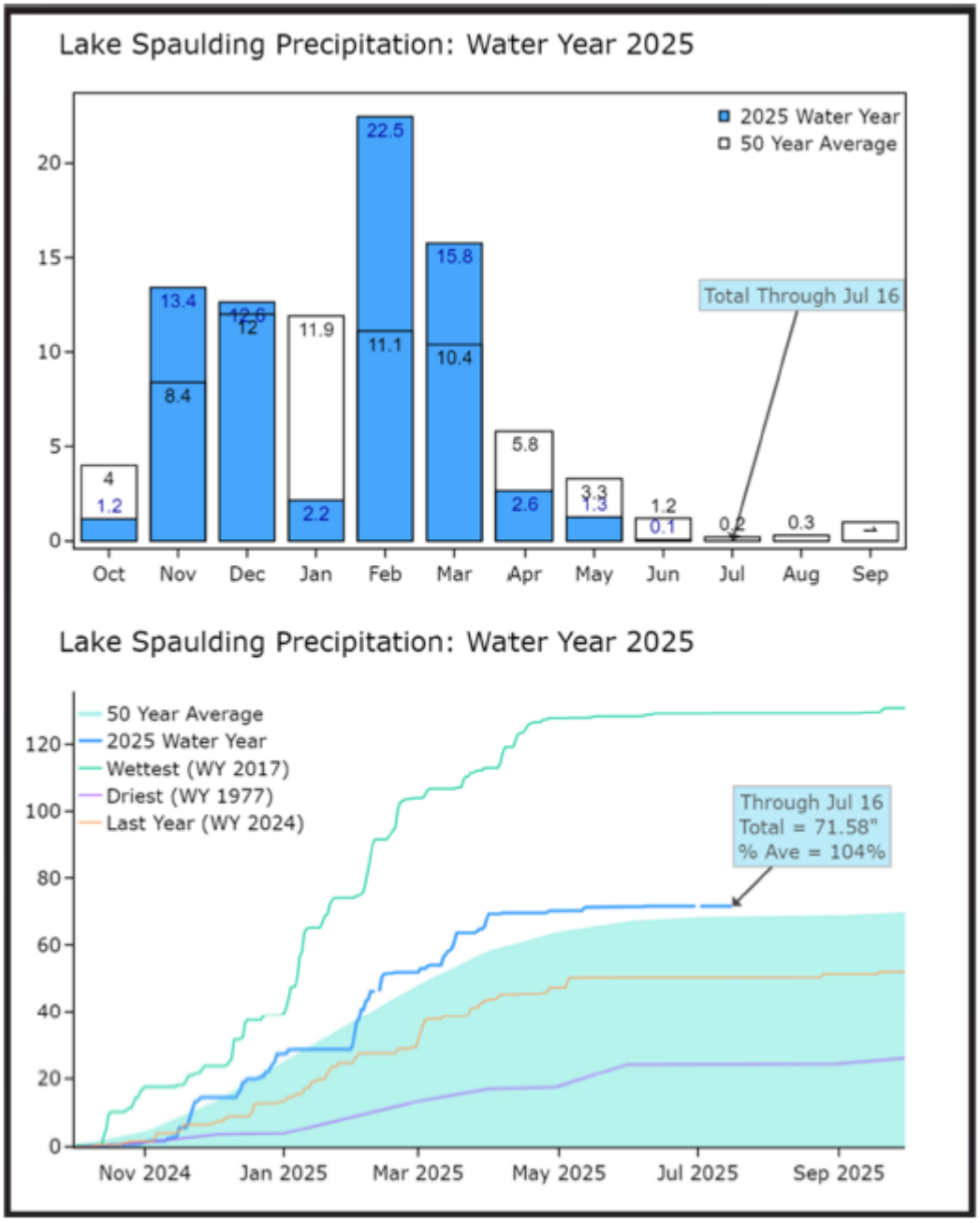

Figure 7. Lake Spaulding Precipitation: Water Year 2025

Figure 7 has two graphs. The first is a bar graph showing total precipitation over time. The second is a line graph comparing the total precipitation with the 50-year average, the 2024 water year, the wettest water year, the driest water year, and the last water year. Totals through July 16th is a total of 71.58 inches 104% of average.

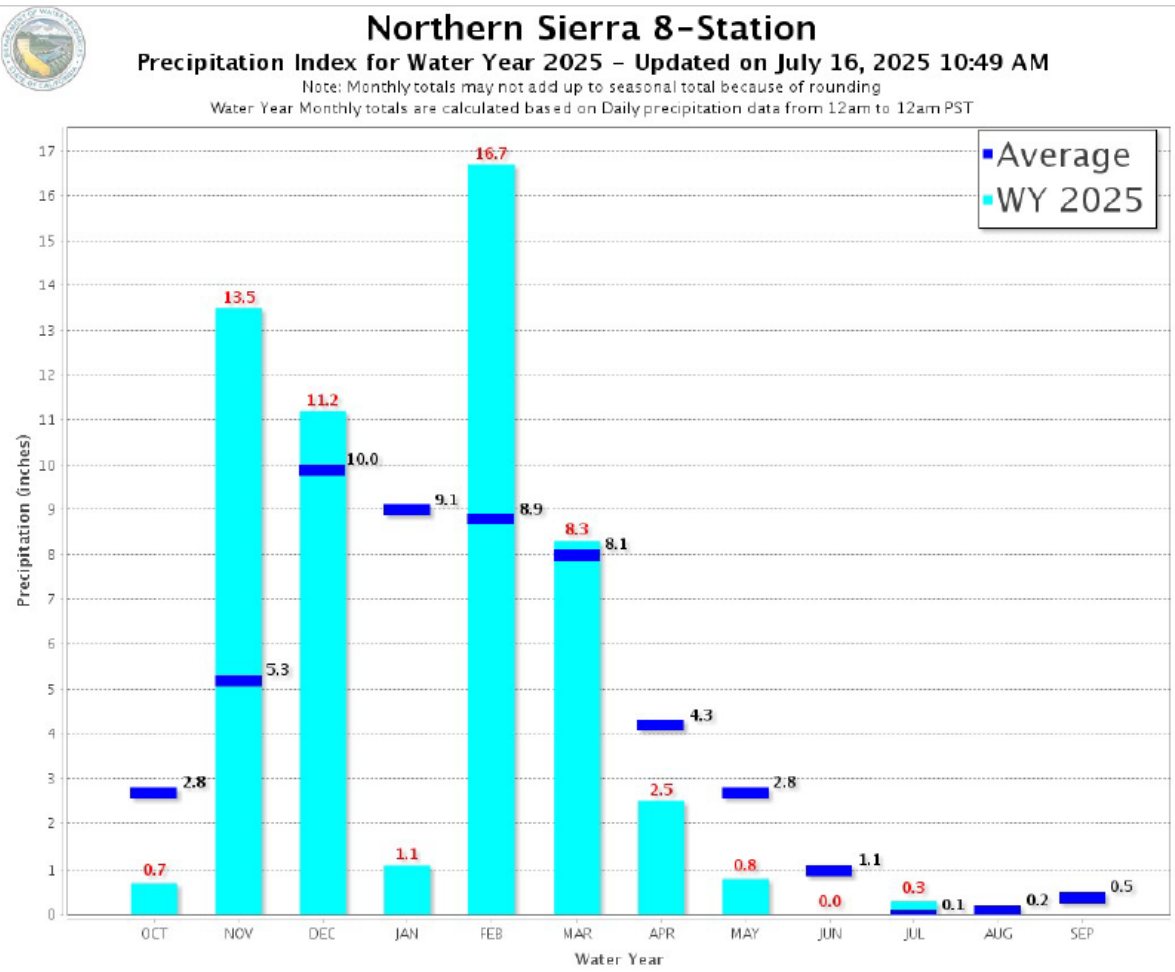

Figure 8. Precipitation Index for Water Year 2025. Projections as of July 16, 2025.

Figure 8 is a bar chart depicting average and total WY2025 precipitation in inches from October to September. WY2025 experienced the highest precipitation in November at 13.5 inches and February at 16.7.

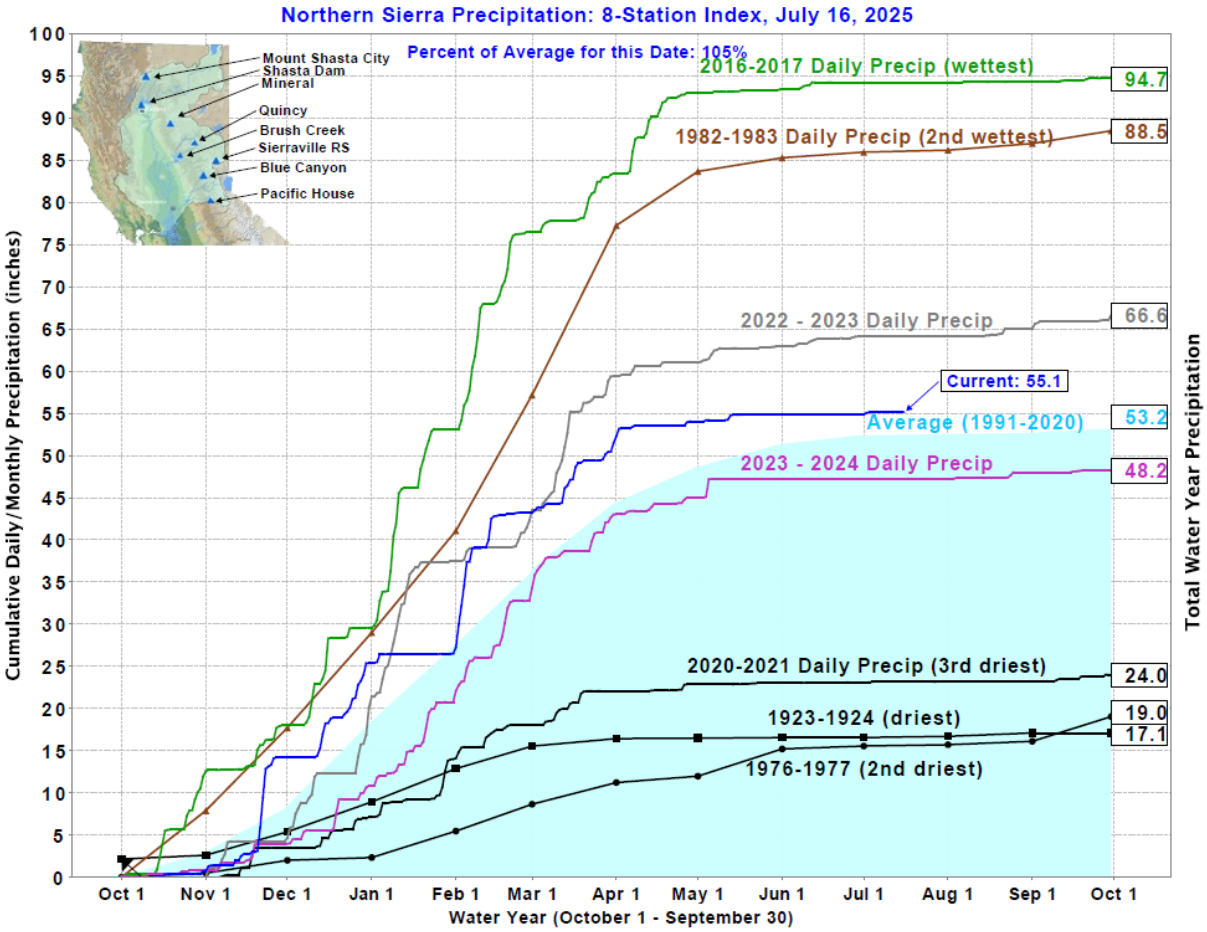

Figure 9. Total and Daily/Monthly Precipitation for Water Year 2025

Figure 9 is a graph depicting total water year precipitation and cumulative daily/monthly precipitation in inches. The average for 1991-2020 is shown in a shaded blue area (53.2 inches), 2016-2017 daily precipitation is the wettest at 94.7 inches, daily precipitation for 1982-1983 as the 2nd wettest at 88.5 inches, 2022-2023 daily precipitation at 66.6 inches, current water year at 54.9 inches, 2023-2024 daily precipitation 48.2 inches, 2020-2021 daily precipitation at 24.0 inches, 1923-1924 17.1 inches, and 1976-1977 19.0 inches.

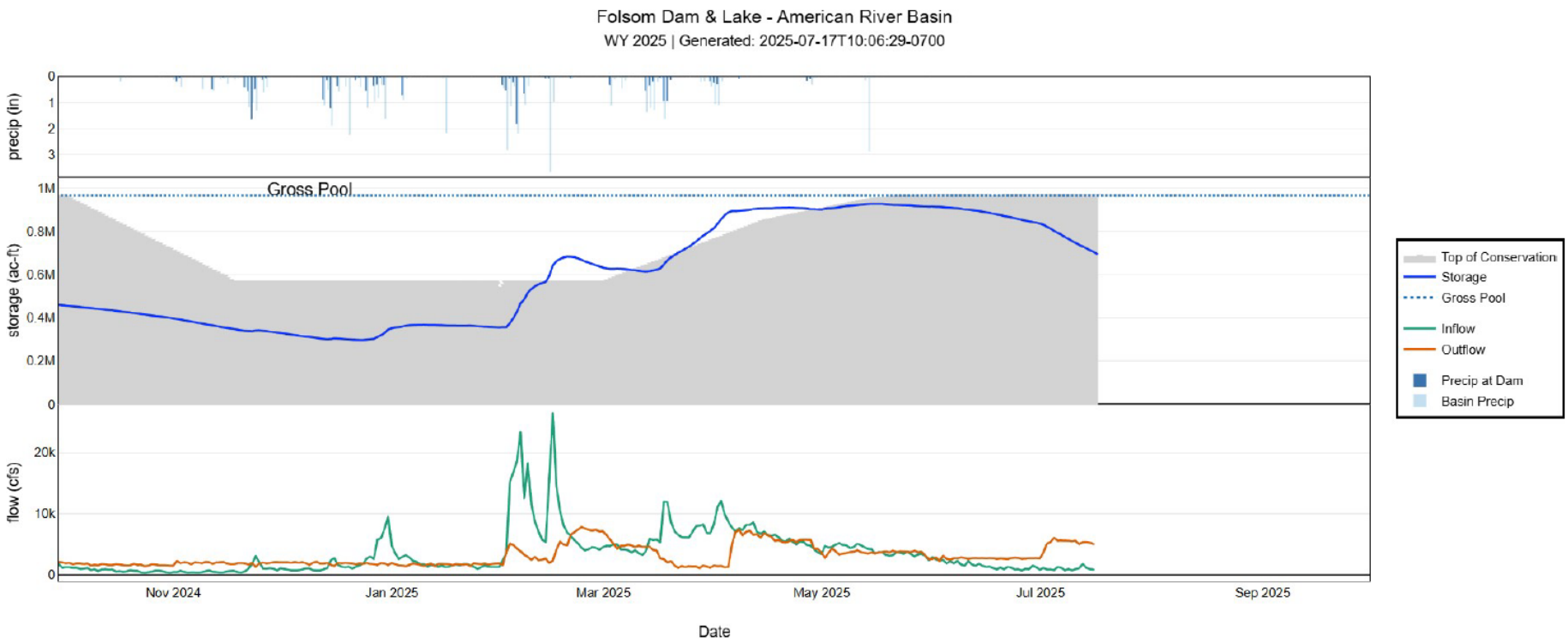

Figure 10. Folsom Dam and Lake Flow, Storage, and Precipitation Totals

Figure 10 is a graph that compares the flow, storage, and precipitation over time for the American River Basin.

Bureau of Reclamation
Historical Archive and Report Database
Daily CVP Water Supply
July 15, 2025 | Run Date: 07/16/2025

Reservoir Releases in Cubic Feet/Second

Reservoir	Dam	WY 2024	WY 2025	15 Yr Median
Trinity	Lewiston	493	893	467
Sacramento	Keswick	13,496	13,897	10,986
Feather	Oroville(SWP)	8,000	8,000	4,500
American	Nimbus	4,956	4,784	3,964
Stanislaus	Goodwin	401	275	328
San Joaquin	Friant	418	239	444

Storage in Major Reservoirs in Thousands of Acre-Feet

Reservoir	Capacity	15 Yr Avg	WY 2024	WY 2025	% of 15 Yr Avg
Trinity	2,448	1,627	2,001	2,153	132
Shasta	4,552	3,159	3,730	3,529	112
Folsom	977	680	747	706	104
New Melones	2,420	1,501	1,972	1,772	118
Fed. San Luis	966	406	586	372	92
Total North CVP	11,363	7,373	9,036	8,532	116
Millerton	521	384	378	373	97
Oroville (SWP)	3,425	2,393	3,024	2,968	124

Accumulated Inflow for Water Year to Date in Thousands of Acre-Feet

Reservoir	Current WY 2025	WY 1977	WY 1983	15 Yr Avg	% of 15 Yr Avg
Trinity	1,594	193	2,698	1,084	147
Shasta	6,180	2,106	10,044	4,456	139
Folsom	2,083	298	6,063	2,443	85
New Melones	590	---	2,530	951	62
Millerton	1,027	231	3,972	1,418	72

Accumulated Precipitation for Water Year to Date in Inches

Reservoir	Current WY 2025	WY 1977	WY 1983	Average (N Years)	% of Average	Last 24 Hours
Trinity at Fish Hatchery	35.39	12.06	54.73	30.06	(65)	118
Sacramento at Shasta Dam	66.19	17.42	112.44	58.69	(70)	113
American at Blue Canyon	69.66	15.64	103.88	63.80	(51)	109
Stanislaus at New Melones	19.54	---	45.33	26.57	(48)	74
San Joaquin at Huntington Lk	29.44	17.20	81.40	39.52	(52)	74

July 2025 | Folsom Lake Daily Operations | Run Date: 07/16/2025

Day	Elev	Storage (1000 Acre-Feet) in Lake	Storage (1000 Acre-Feet) Change	Compu-ted* Inflow C.F.S.	Release - C.F.S. River Power	Release - C.F.S. River Spill	Release - C.F.S. River Outlet	Pump-ing Plant	Evap. - C.F.S.	Evap. - Inches	Precip Inches
N/A	N/A	836.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	452.51	831.4	-5.3	1,214	3,550	0	0	196	141	0.41	0.00
2	451.68	822.8	-8.6	981	4,972	0	0	208	140	0.41	0.00
3	450.79	813.6	-9.2	985	5,265	0	0	210	140	0.41	0.00
4	449.75	803.0	-10.7	892	5,351	565	0	214	139	0.41	0.00
5	448.89	794.2	-8.8	1,391	5,478	0	0	197	138	0.41	0.00
6	448.00	785.2	-9.0	1,250	5,494	0	0	193	114	0.34	0.00
7	447.03	775.4	-9.8	860	5,461	0	0	204	123	0.37	0.00
8	446.09	766.0	-9.4	1,022	5,444	0	0	207	116	0.35	0.00
9	445.13	756.4	-9.6	865	5,365	0	0	211	105	0.32	0.00
10	444.18	747.0	-9.4	1,026	5,440	0	0	219	105	0.32	0.00
11	443.36	739.0	-8.1	1,165	4,865	0	0	232	134	0.41	0.00
12	442.61	731.6	-7.3	1,867	5,217	0	0	224	127	0.39	0.00
13	441.73	723.1	-8.6	1,259	5,237	0	0	220	123	0.38	0.00
14	440.81	714.2	-8.9	1,018	5,149	0	0	220	141	0.44	0.00
15	439.93	705.7	-8.5	960	4,876	0	0	238	118	0.37	0.00
Totals	N/A	N/A	-131.2	16,755	77,164	565	0	3,193	1,904	5.74	0.00
Acre-Feet	N/A	N/A	-131,200	33,234	153,055	1,121	0	6,333	3,777	N/A	N/A

* Computed inflow is the sum of change in storage, releases, pumping, and evaporation

Summary: Release (acre-feet)

Power	153,055
Spill	1,121
Outlet	0
Pumping Plant	6,333
Total Releases	160,509

Summary: Precipitation (Month/Inches)

This month	0.00
October 1, 2024 to date	17.90

Isobath 07/01–07/15 (Mean Daily Temperature, Release, Storage, Unit Shutter Position/Load Percentage

MDT = Mean Daily Temperature (°F)
USP/LP = Unit Shutter Position/Load Percentage

Date	MDT, Water NFA	MDT, Water ARP	MDT, Water AFD1	MDT, Water AFO	MDT, Water AWP	MDT, Water AWB	MDT, Air, CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/ LP Unit 2	USP/LP Unit 3
June	69.0	67.2	57.2	59.5	61.6	63.1	73.7	2578	N/A	N/A	N/A	N/A
07/01	72.1	71.4	59.5	62.2	63.8	65.4	77.8	3479	831	A 57	A 0	A 43
07/02	70.2	72.4	60.0	62.1	63.4	64.6	77.7	4776	823	A 52	A 0	A 48
07/03	70.2	72.9	60.2	61.8	62.9	63.9	72.2	5213	814	A 52	A 0	A 48
07/04	69.6	70.5	60.8	61.7	62.6	63.4	70.4	5268	803	A 50	A 0	A 50
07/05	66.9	69.4	61.4	62.1	63.1	63.7	69.9	5283	794	A 50	A 0	A 50
07/06	66.7	68.8	61.5	62.6	63.7	64.4	74.7	5203	785	A 50	A 0	A 50
07/07	68.0	69.4	61.8	62.9	64.0	64.8	74.3	5206	775	A 50	A 0	A 50
07/08	69.8	69.7	62.2	63.0	64.1	64.8	72.0	5217	766	A 50	A 0	A 50
07/09	68.3	69.6	62.5	63.5	64.4	65.1	72.6	5204	756	A 50	A 0	A 50
07/10	68.6	70.7	63.0	64.0	65.0	65.8	79.4	5162	747	A 50	A 0	A 49
07/11	68.9	70.7	60.6	64.5	65.8	66.7	83.8	4890	739	T 46	A 0	A 54
07/12	66.6	68.8	58.2	62.1	64.2	65.7	78.6	4870	732	T 50	A 0	A 50
07/13	68.4	69.5	58.5	60.6	62.1	63.3	76.1	4877	723	T 50	A 0	A 50
07/14	68.2	70.0	58.7	60.7	62.1	63.1	76.8	4785	714	T 50	A 0	A 50
07/15	68.8	70.0	59.0	60.9	62.1	63.1	71.2	4784	706	T 48	A 0	A 52
Jul Avg.	68.7	70.3	60.5	62.3	63.6	64.5	75.2	4948	N/A	N/A	N/A	N/A

Date	MDT, Water NFA	MDT, Water ARP	MDT, Water AFD1	MDT, Water AFO	MDT, Water AWP	MDT, Water AWB	MDT, Air, CSU	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/ LP Unit 2	USP/LP Unit 3
N/A	N/A	N/A	N/A	N/A	N/A	**Total**	**AF**	**147206**	N/A	N/A	N/A	N/A

Legend:
? = 1-9 hours of data missing
! = 10 or more hours of data missing
= Station out of service

Monthly Averages
A = All Shutters Lowered
T = Top Shutter Raised
M = Middle Shutter Raised
B = Bottom Shutter Raised
O = Unit Outage

Notes:
[1] AFD is a weighted average based on hourly flow values, including generation, bypass and spill

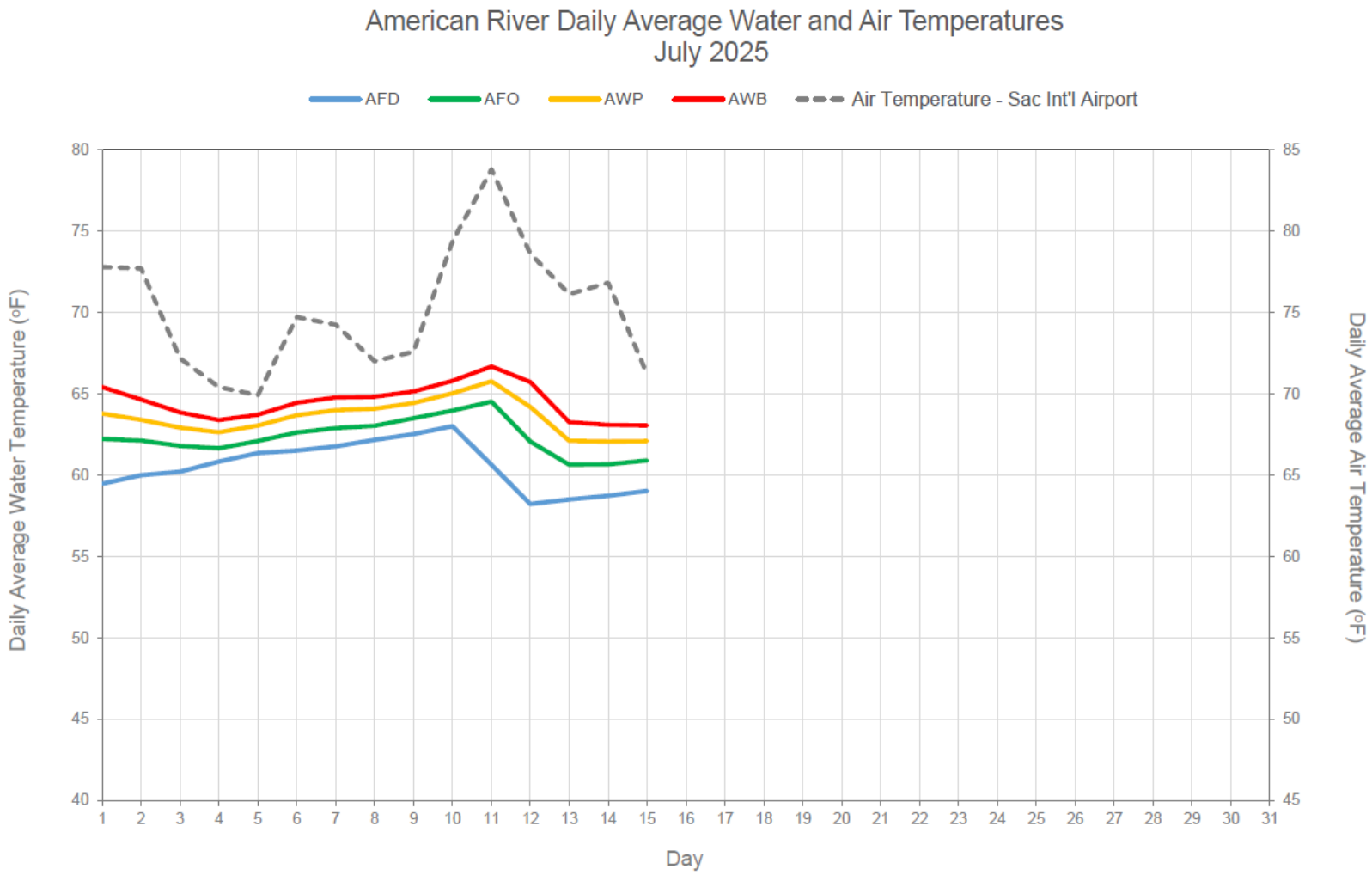

Figure 11. American River Daily Average Water and Air Temperatures

Figure 11 is a line graph comparing daily average water and air temperatures for days of the month (generalized). Temperatures from the AFD sensor is shown in light blue, AFO sensor in light green, AWP in yellow, and AWB in red. The air temperature at Sacramento International Airport in a dotted black line.

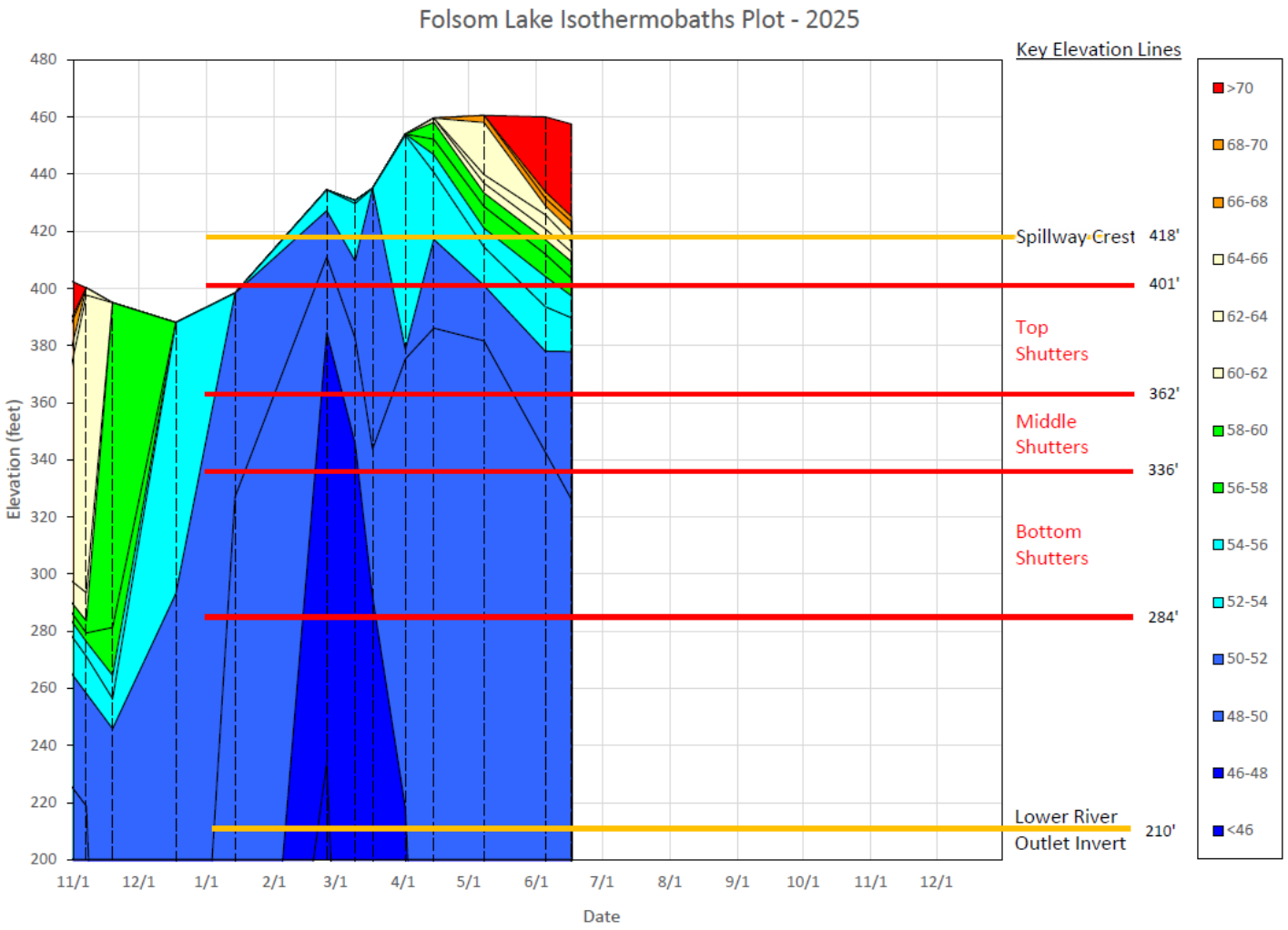

Figure 12. Folsom Lake Isothermobaths Plot

Figure 12 is a shaded chart of the Folsom Lake Isothermobaths plot for 2025 from November 1st to June 15th. The temperature of the water is depicting through different colors with the spillway crest, top, middle, and bottom shutters, and lower river outlet inverts are shown by horizontal lines.

Draft June 2025 Outlook

50% Inflow/Runoff Exceedance Hydrology

Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Folsom Storage	837	591	526	490	509	512	533	532	533	723	851	915	934
Folsom Elevation	N/A	427	420	415	418	418	421	420	421	442	454	460	462

Monthly River Release (TAF/cfs)

Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
American TAF	N/A	295	150	104	61	89	92	154	261	123	297	400	203
American cfs	N/A	4800	2439	1750	1000	1500	1500	2500	4700	2000	5000	6500	3405

90% Inflow/Runoff Exceedance Hydrology

Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Folsom Storage	837	585	503	452	424	407	409	410	458	553	681	705	587
Folsom Elevation	N/A	427	417	410	406	404	404	405	411	423	437	440	427

Monthly River Release (TAF/cfs)

Facility	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
American TAF	N/A	295	154	111	69	59	61	61	56	77	78	150	189
American cfs	N/A	4807	2509	1861	1118	1000	1000	1000	1000	1250	1318	2445	3185

Table 4. American River Baseflow Table

Month	Index Used for Index-based MRR	Flood Mgmt (TAF)1	ARI or SRI	Index Based MRR (cfs)	RDPB-based MRR for fall-run Chinook salmon (applicable in Jun and Feb)	RDPB-based MRR for steelhead (applicable Feb to May)	Controlling MRR (cfs)	Actual Average Monthly Nimbus release[2] (cfs)
October	May ARI[3] (50% exceedance)	0	2,329	1,500	N/A	N/A	1,500	1,545
November	May ARI[3] (50% exceedance)	0	2,329	2,000	N/A	N/A	2,000	1,997
December	May ARI[3] (50% exceedance)	0	2,329	2,000	N/A	N/A	2,000	2,027
January	January SRI (90% exceedance)	0	13.6 (SRI)	1,750	1,400	N/A	1,750	1,761
February	February ARI (90% exceedance)	190	1,280	1,118	1,215	1,400	1,400	4,838
March	March ARI (90% exceedance)	292	1,520	1,316	N/A	1,215	1,316	3,075
April	April ARI (90% exceedance)	524	1,898	1,320	N/A	1,215	1,320	5,085
May	May ARI (90% exceedance)	602	1,676	1,191	N/A	1,215	1215	3,428
June	May ARI[3] (90% exceedance)	602	1,598	1,146	N/A	N/A	1146	2,463
July	May ARI[3] (90% exceedance)	N/A	1,598	N/A	N/A	N/A	1146	N/A
August	May ARI[3] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
September	May ARI[3] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

1 Cumulative flood management releases
2 Average of daily releases over the month from sum of Power, Spill, and Hatchery flows DailyOperationsNAT
3 B120 Forecasts are usually provided January through May. The May ARI would also be used for June-September of the current water year and October through December of the next water year unless there is an update to the ARI after May.

90% exceedance starting January 2025 (2024 ROD) MRR=Minimum Release Requirement

RDPA=Redd Dewatering Protective Adjustment

ARI=American River Index SRI=Sacramento River Index NA = Not applicable