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, April 17, 2025

Agenda

1. Introductions
2. Announcements
3. Housekeeping
    a. Meetings will no longer be recorded. Automated transcriptions have been turned off.
4. Fisheries Update
    a. CDFW
    b. CFS
    c. PSMFC
5. Operations Forecast
    a. SMUD
    b. PCWA
6. Central Valley Operations
7. Discussion
    a. Spring pulse flow
8. Next Monthly Meeting:
    a. Thursday, May 15, 1:30-3:30pm

Provisional Data Subject to Revision

Lower American River Spawning and Stranding Surveys

Steelhead redd counts through April 3, 2025

Table 1. Steelhead, Chinook Salmon and Lamprey redd counts during 2025 steelhead spawning surveys. Only new, freshly built redds with clean rocks and no algae colonization are included in table.

Dates	Steelhead	Chinook	Lamprey	Unknown[1]	Total
Jan 7 - 10	14	10	0	2	26
Jan 21 - 22	8	0	0	0	8
Feb 3	4	0	0	0	4
Feb 17 - 18	2	0	0	0	2
Mar 4 - 5	1	0	1	0	2
Mar 19 - 21	0	0	0	0	0
Apr 2 - 3	0	0	1	0	1
Total	29	10	2	2	43

[1] Redd measurements unable to be collected due to angler activity, thus remained classified as 'unknown'

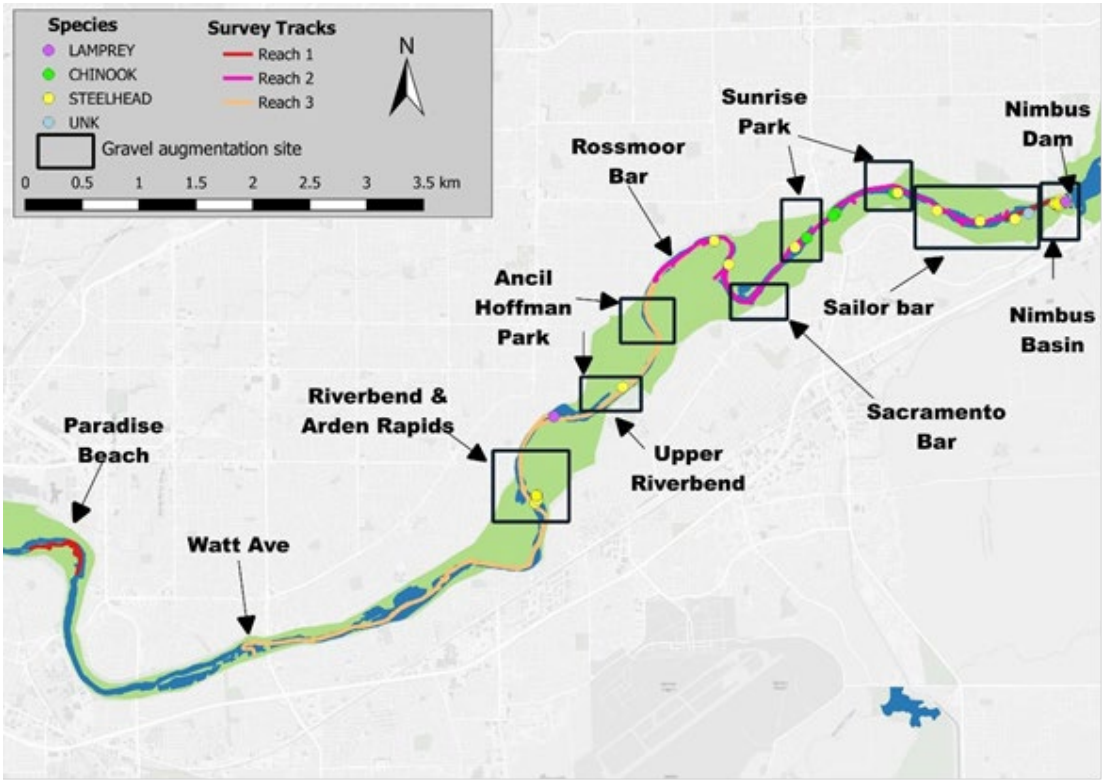

Figure 1. Locations of New Redds along the Lower American River

Figure 1 is a map showing locations of new redds identified during the 7 January through 3 April 2025 steelhead spawning surveys along the Lower American River. The gravel augmentation boxes represent general areas where gravel augmentation has occurred.

No new steelhead redds were observed since the 4-5 March surveys. The majority of the 2025 steelhead redds were observed in Nimbus Basin (52%) and 17% have been observed in the newly restored River Bend side channel.

Steelhead spawning surveys have concluded for the 2025 season.

Stranding surveys March 19 through March 21, 2025

Table 2. Salmonids and environmental conditions in isolated pools during the 19-21 March 2025 stranding survey. No stranded pools containing juvenile salmonids were observed on 21 March. Numbers in parentheses are visually estimated only.

Location River Mile	Date	Chinook	Steelhead	Unidentified Salmonids	Total Pool Area (m^2)	Rescued?	Density (fish/m^2)	Temp °C	DO (mg/L)
Sailor Bar (22)	19 Mar	6	0	0	23	Y	0.3	7.6	7.8
Sailor Bar (22)	19 Mar	28	0	0	38	Y	0.7	7.1	8.0
Sailor Bar (22)	19 Mar	110 (100)	0	0	70	Y(N)	1.6	8.2	9.4
Sailor Bar (22)	19 Mar	239 (100)	0	0	19	Y(N)	12.7	8.5	8.4
Lower Sunrise side channel (19)	19 Mar	(1000)	0	0	407	N	NA	14.8	14.6
Lower Sunrise side channel (19)	19 Mar	1,407	0	0	54	Y	26.2	15	10.9
River Bend side channel (13)	20 Mar	5	0	0	3	Y	1.7	14.5	7.7
River Bend side channel (13)	20 Mar	589	(1)	0	117	Y(N)	5.0	11.6	8.3
Below River Bend (12)	20 Mar	443	0	0	141	Y	3.1	16.7	12.4
Below River Bend (12)	20 Mar	885	0	0	44	Y	19.9	16.6	11.7
TOTAL	-	3,712 (1,200)	(1)	0	917	-	-	-	-

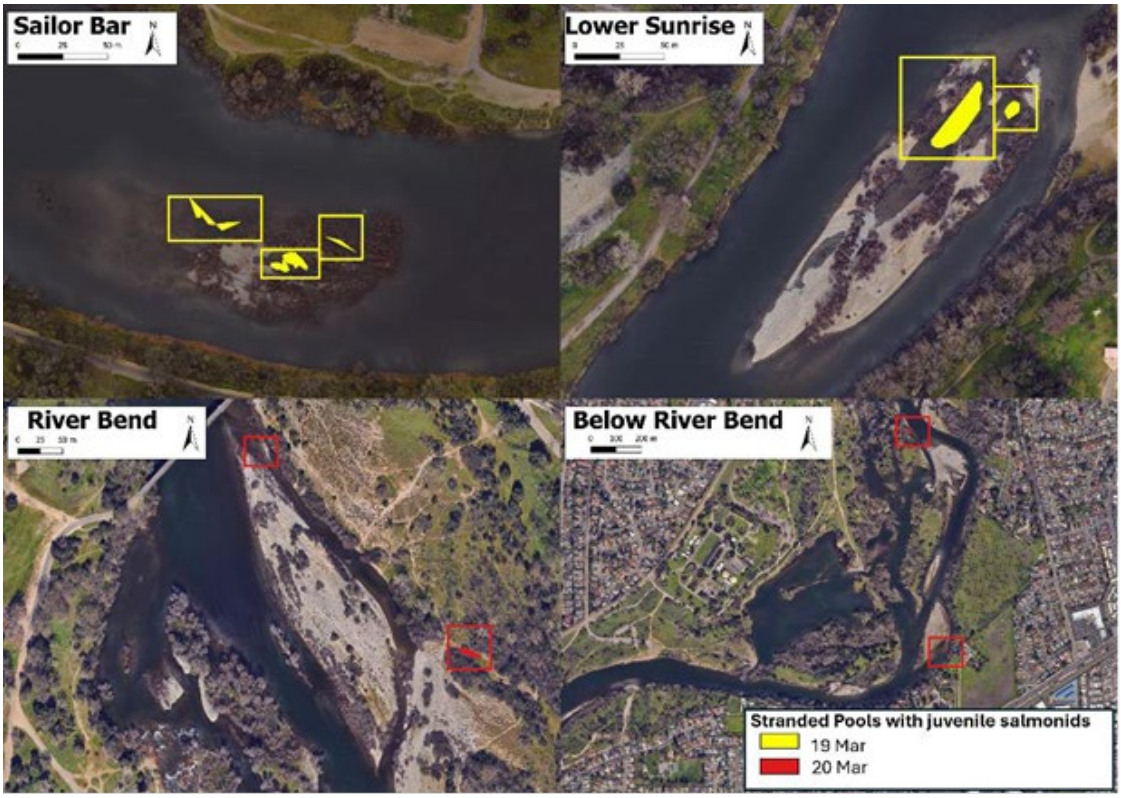

Figure 2. Location of stranding pools observed on the Lower American River on 19-21 March 2025. No stranded pools with juvenile salmonids were observed on 21 March.

Figure 2 is 4 satellite images of Sailor Bar, Lower Sunrise, River Bend, and Below River Bend. A red box shows an isolated pool with stranded salmonids on March 20. A yellow box shows an isolated pool with stranded juvenile salmonids on March 19.

Snorkel Surveys

CFS began snorkel surveys at Nimbus Basin, Lower Sailor, Ancil Hoffman, Upper River Bend and the new River Bend side channels (and associated main channel control sites) on 28 Feb and 3-4 March 2025. The second survey occurred 25-27 March.

Higher numbers of juvenile salmon were observed in all sites. Early observations indicate heavy utilization of woody structures in restored project sites, particularly Upper River Bend and River Bend side channels.

The next survey is scheduled next week, 22-24 April.

PSMFC - Updated 3/18/25

RST Operations:

- No sampling occurred on 4/6 – 4/8 due to heavy/large debris and algae as a result of the increase in flows (1,350 -> 7,000 cfs).
- RSTs are currently online and expected to be continuously operated 7 days per week.

Table 3. Unmarked Juvenile Chinook Salmon (length-at-date):

Fall	Late Fall	Spring	Winter
129,466	81	37	17

Table 4. Unmarked O. mykiss (life stage):

Fry	Parr	Smolt	Adult
26	1	2	0

Lower American River RSTs at Watt Avenue:
Daily catch of unmarked Chinook Salmon and daily average discharge at Fair Oaks during the 2025 Lower American River rotary screw trap sampling season.

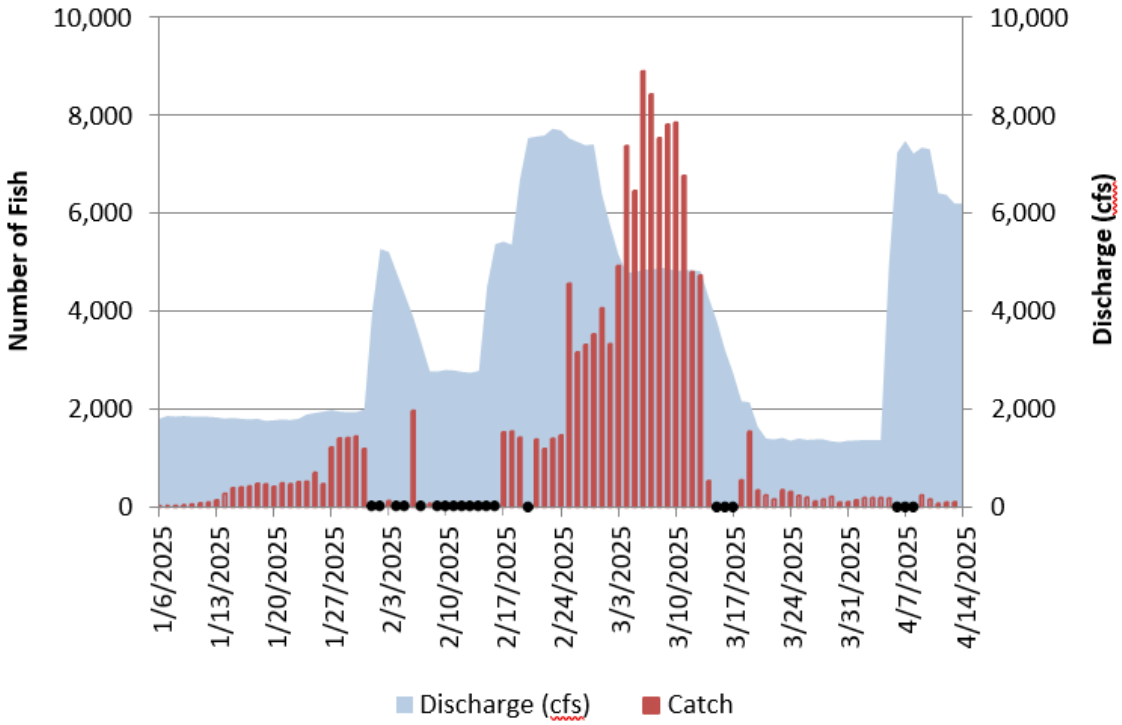

Figure 3. Lower American River RSTs at Watt Avenue – Daily catch of unmarked Chinook Salmon and daily average discharge at Fair Oaks during the 2025 Lower American River rotary screw trap sampling season.

Figure 3 is a bar graph that compares discharge (cfs), catch from January 6, 2025, to April 14, 2025.

Lower American River RSTs at Watt Avenue:
Daily catch of unmarked Chinook Salmon and daily average discharge at Fair Oaks from April 1st to April 14th during the 2025 Lower American River rotary screw trap sampling season.

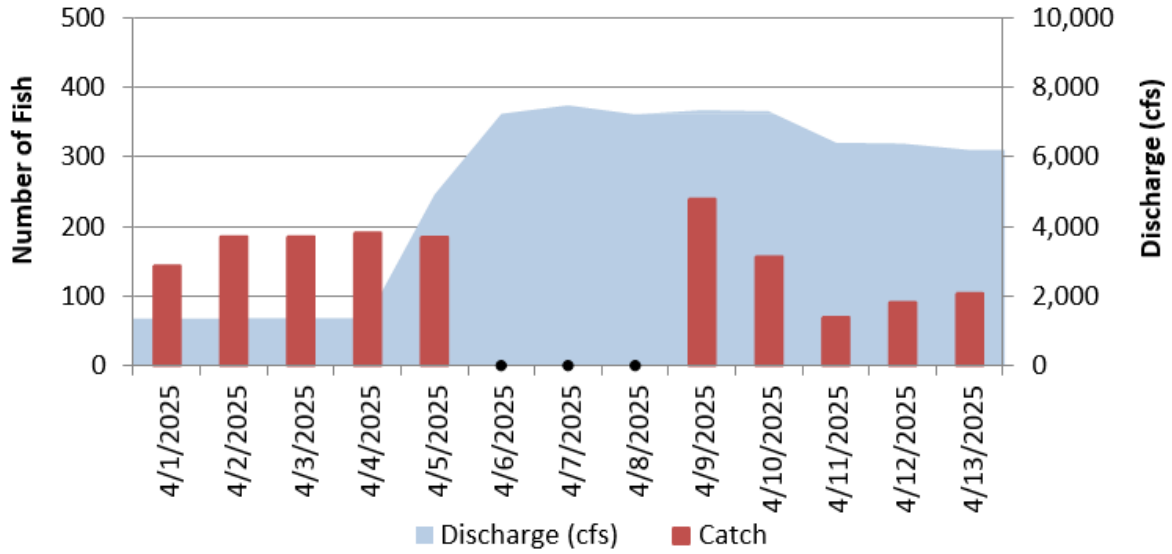

Figure 4. Lower American River RSTs at Watt Avenue – Daily catch of unmarked Chinook Salmon and daily average discharge at Fair Oaks from April 1st to April 14th during the 2025 Lower American River rotary screw trap sampling season.

Figure 4 is a bar graph that compares number of fish (0-500) over dates 4/1/2025-4/13/2025.

Lower American River RSTs at Watt Avenue:
Daily fork length distribution by life stage of unmarked Chinook Salmon measured during the 2025 Lower American River rotary screw trap sampling season.

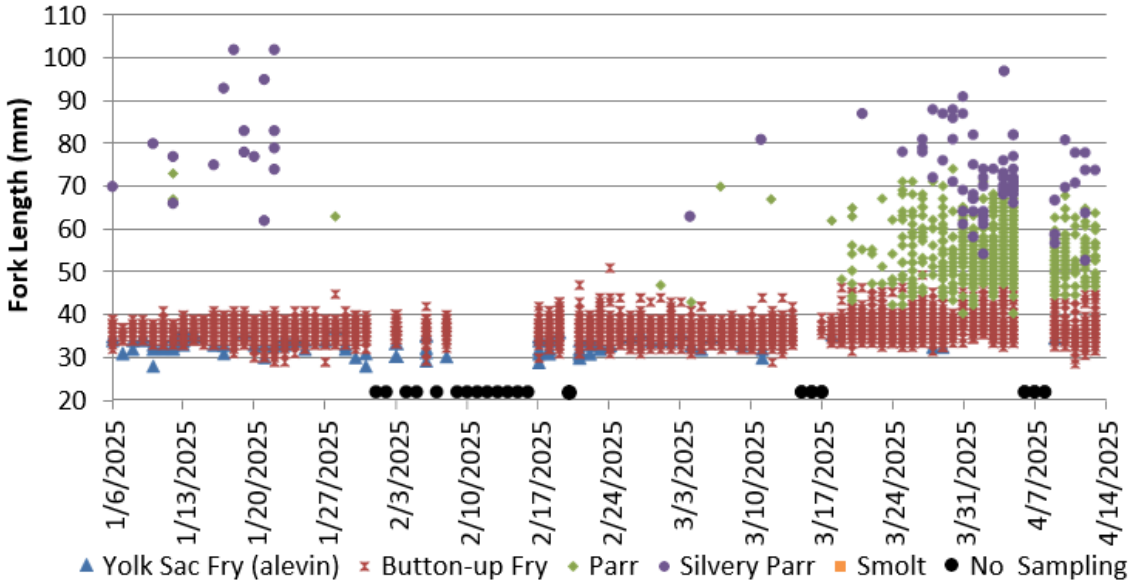

Figure 5. Lower American River RSTs at Watt Avenue – Daily fork length distribution by life stage of unmarked Chinook Salmon measured during the 2025 lower American River rotary screw trap sampling season.

Figure 5 is a scatter plot that compares fork length (mm) (20-110) over dates 1/6/2025-4/14/2025.

Visit Lower American River RST CalFish Webpage for more information.

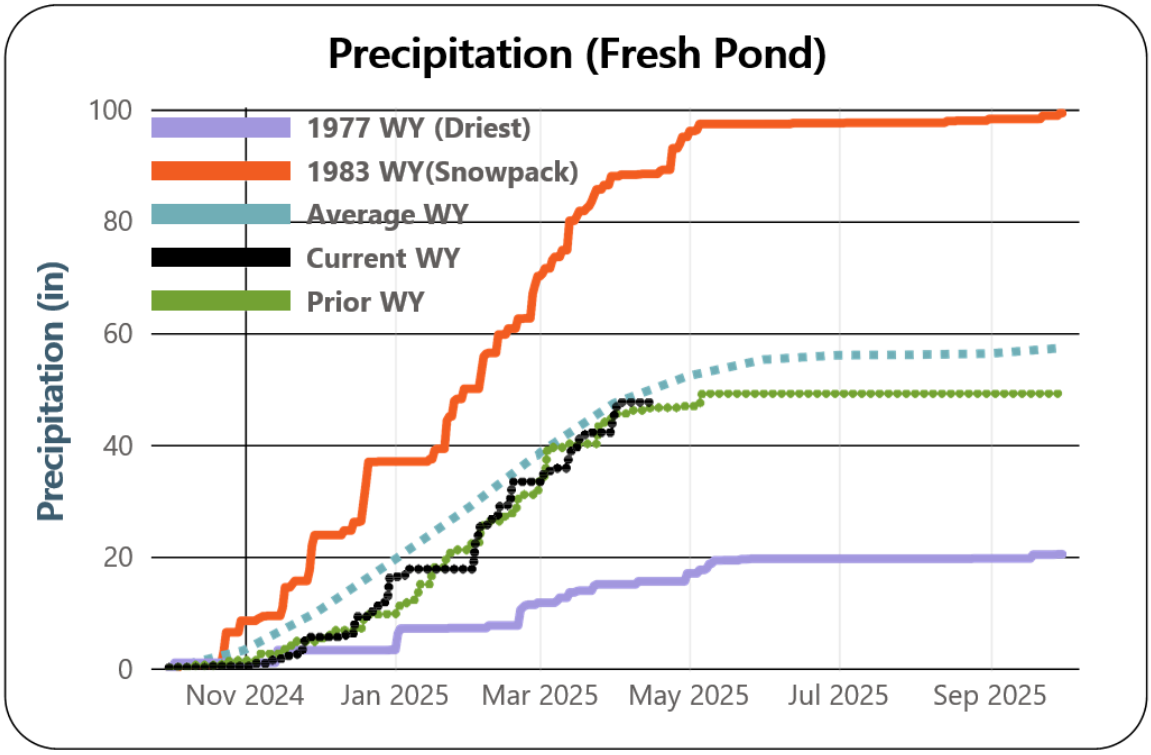

Figure 6. Fresh Pond Precipitation

Figure 6 is a line graph showing precipitation (mm) 0-100 compared to months November 2024 – September 2025. The graph shows data for the average, current, and prior water year, in addition to 1977 (driest) and 1983 (snowpack). Precipitation is 95.0% average-to-date, and 82.9% water year average.

Table 5. 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	3.20	4.84	66%
May	0.00	2.97	0%
June	0.00	0.79	0%
July	0.00	0.08	0%

Month	Current Water Year	Historical Average	% of Historical Average
August	0.00	0.20	0%
September	0.00	1.02	0%
Total	47.49	57.32	83%

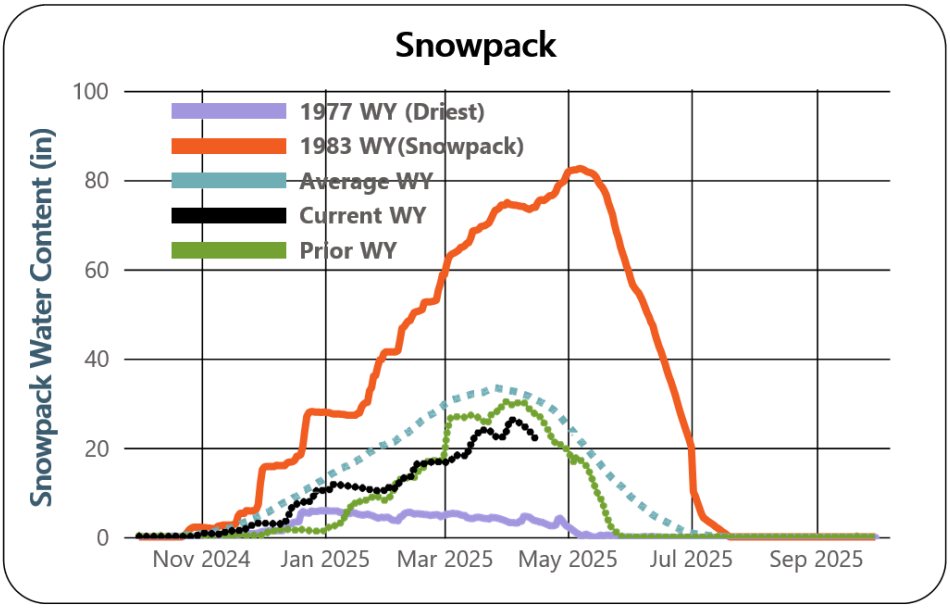

Figure 7. Snowpack Water Content

Figure 7 is a line graph of snowpack water content in inches for November 2024 – September 2025. It includes data from the driest water year (1977), 1983's water year snowpack, average, current, and prior water year. Runoff into the storage reservoir basins is 69.7% average-to-date and 53.8% of April 1 average.

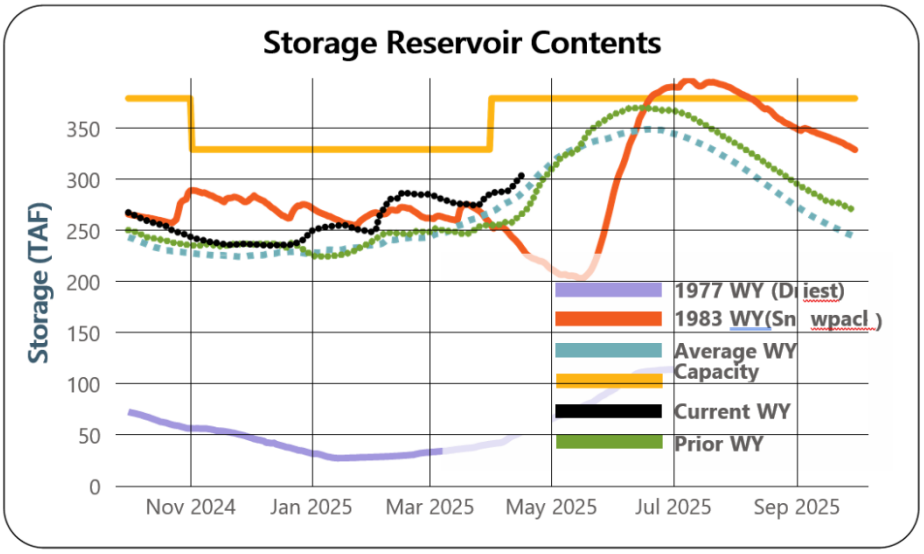

Figure 8. Storage Reservoir Contents

Figure 8 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 average water year capacity of the reservoir network is also shown.

Table 6. SMUD Storage Reservoirs

Reservoir	Capacity Acre-ft	Current Acre-ft	Current % Full	Prior Year Acre-ft	Prior Year % Full	Historical Avg Acre-ft	Historical Avg % Full
Loon Lake Reservoir	69,310	42,472	61.3%	40,006	58%	43,754	63%
Ice House Reservoir	43,500	32,808	75.4%	29,412	68%	30,711	71%
Union Valley Reservoir	266,370	229,073	86.0%	195,720	73%	212,667	80%
Total Reservoir Storage	379,180	304,353	80.3%	265,138	70%	287,132	76%

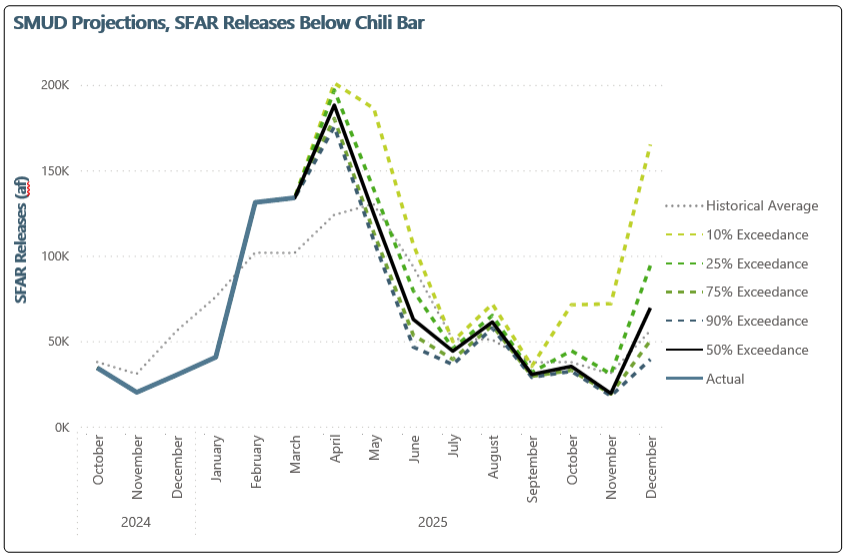

Figure 9. SMUD Projections, SFAR Releases Below Chili Bar

Figure 9 is a line graph of SFAR releases (af) over months October 2024 to December 2025. Lines are shown for historical average, 10% exceedance, 25% exceedance, 75% exceedance, 90% exceedance, 50% exceedance, and actual.

Table 7. SFAR Releases Below Chili Bar

Type (Actual or Forecast)	Year	Month	Daily Mean Release Rate (cfs)	Monthly Total Release (acre-ft)	Monthly Total Release (90% Exceedance)	Monthly Total Release (10% Exceedance)
Actual	2024	October	560	34,393	34,393	34,393
Actual	2024	November	338	20,076	20,076	20,076
Actual	2024	December	491	30,134	30,134	30,134
Actual	2025	January	662	40,627	40,627	40,627
Actual	2025	February	2,367	131,227	131,227	131,227
Actual	2025	March	2,182	133,937	133,937	133,937
Forecast	2025	April	3,167	188,140	175,490	201,034
Forecast	2025	May	2,027	124,435	108,819	186,237
Forecast	2025	June	1,057	62,794	46,618	106,532
Forecast	2025	July	720	44,213	36,331	49,905
Forecast	2025	August	998	61,227	57,662	71,730
Forecast	2025	September	515	30,569	28,885	35,440
Forecast	2025	October	575	35,275	32,398	71,235
Forecast	2025	November	328	19,467	17,991	71,931

Type (Actual or Forecast)	Year	Month	Daily Mean Release Rate (cfs)	Monthly Total Release (acre-ft)	Monthly Total Release (90% Exceedance)	Monthly Total Release (10% Exceedance)
Forecast	2025	December	1,132	69,461	39,348	165,127

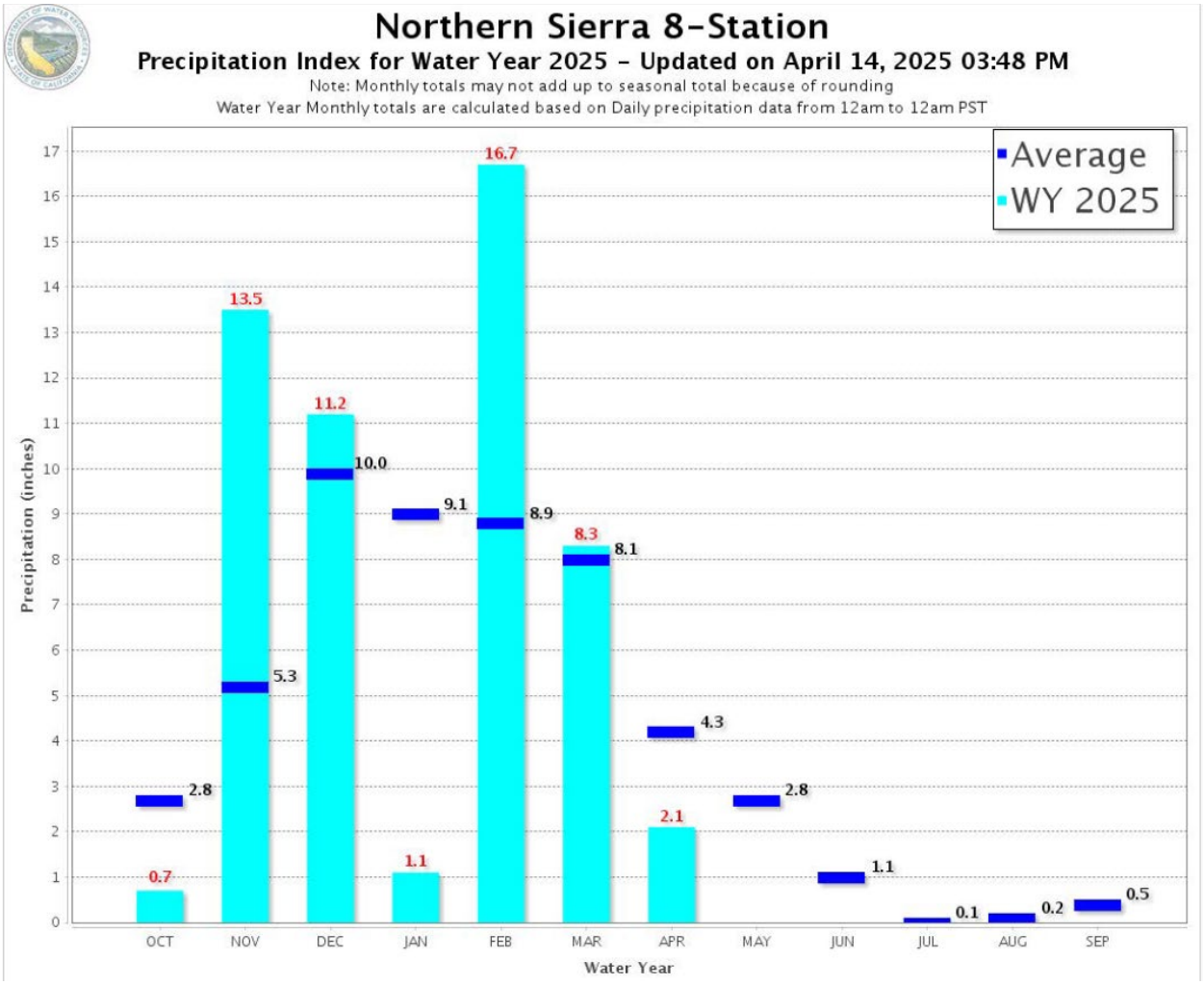

Figure 10. Northern Sierra 8-Station. Precipitation Index for Water Year 2025, updated April 14, 2025, at 3:48 PM.

Figure 10 is a bar graph showing the average precipitation for each month (inches) over months (October-September).

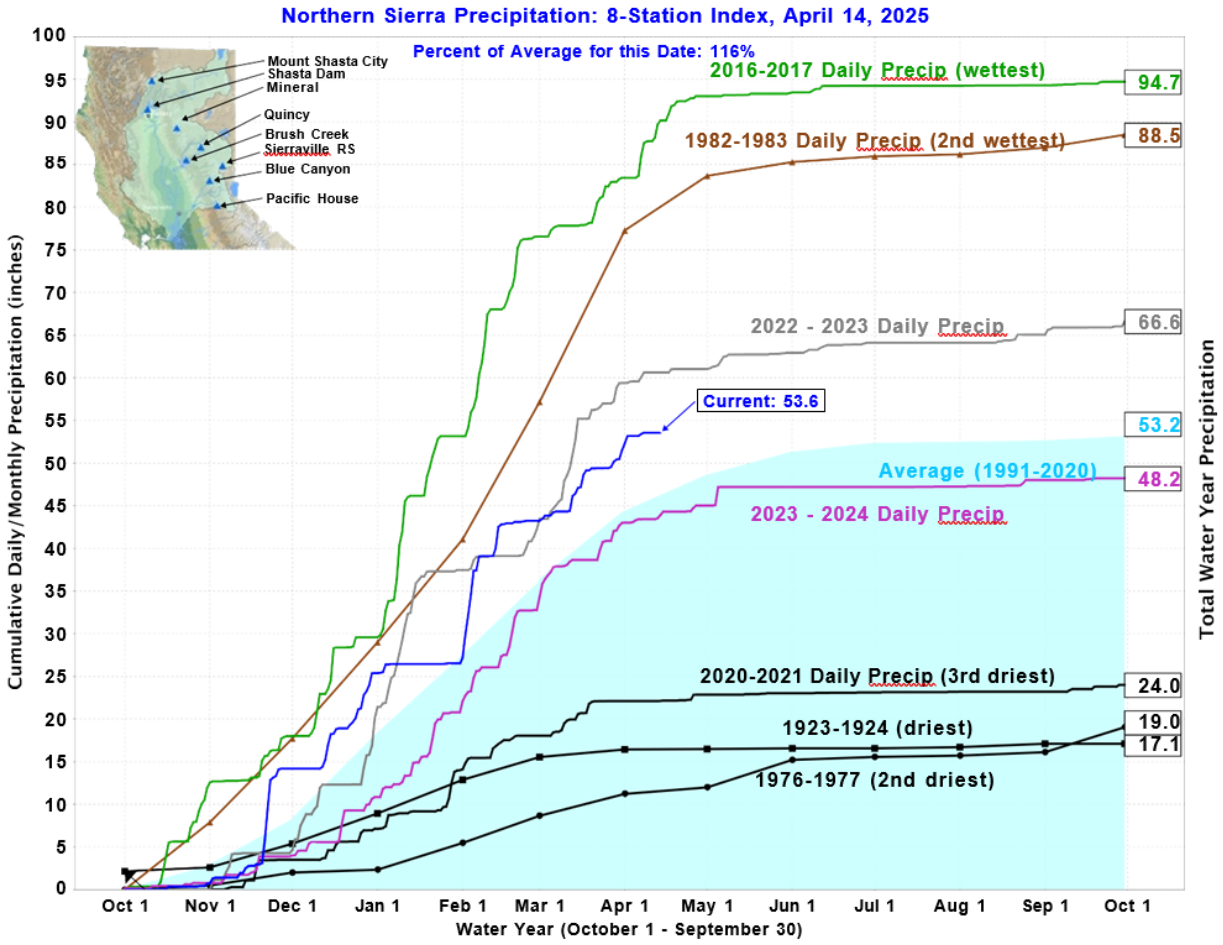

Figure 11. Northern Sierra Precipitation: 8-Station Index, April 14, 2025

Figure 11 shows a line graph precipitation at the Northern Sierra 8-station Index. The graph includes the current cumulative daily and monthly precipitation, 53.6 (113% average for this date), in inches, average for 1991-2020 (53.2), daily precipitation for 2016-2017 (94.7 wettest), 1982-1983 (88.5 2nd wettest), 2022-2023 (66.6), 2023-2024 (48.2), 2020-2021 (24.0 3rd driest), 1976-1977 (19.0 2nd driest), and 1923-1924 (17.1 driest).

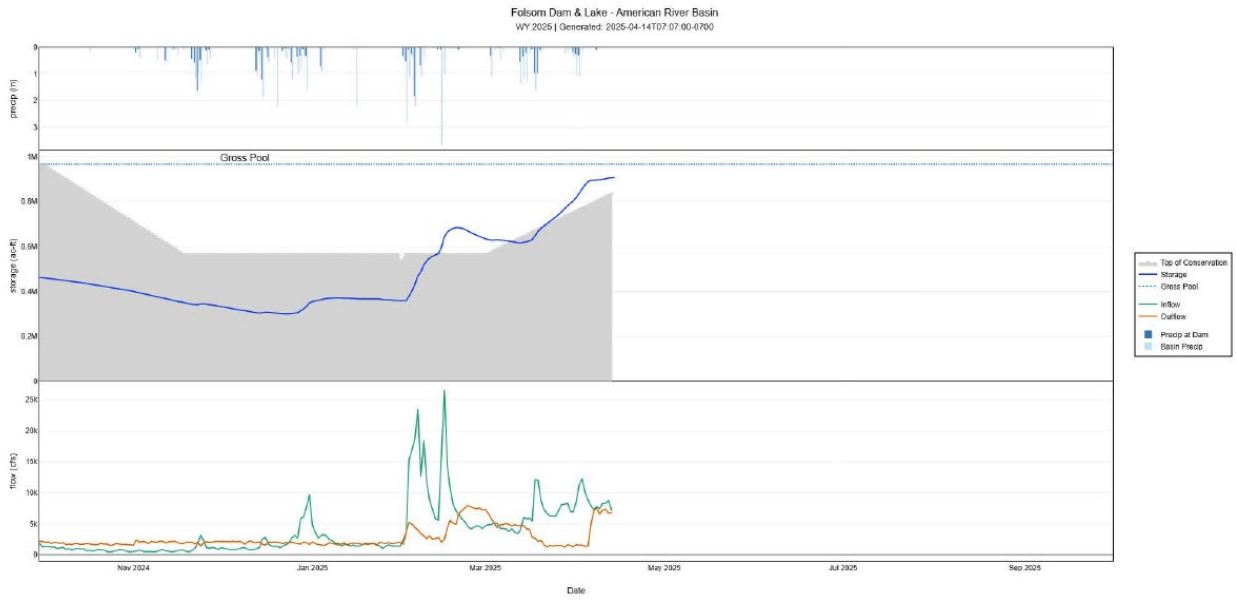

Figure 12. Folsom Dam & Lake – American Rivier Basin

Figure 12 shows 3 graphs depicting storage, gross pool, inflow, outflow, precipitation at dam, and basin precipitation over months November 2024 to September 2025.

Reservoir Releases in Cubic Feet/Second

Reservoir	Dam	WY 2024	WY 2025	15 Yr Median
Trinity	Lewiston	303	1,998	307
Sacramento	Keswick	8,086	4,570	4,570
Feather	Oroville (SWP)	7,000	11,650	1,900
American	Nimbus	4,098	6,088	3,269
Stanislaus	Goodwin	1,491	852	1,402
San Joaquin	Friant	547	928	460

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	1,735	2,046	2,187	126
Shasta	4,552	3,630	4,339	4,335	119
Folsom	977	680	772	906	133
New Melones	2,420	1,560	2,029	2,003	128
Fed. San Luis	966	719	952	851	118
Total North CVP	11,363	8,324	10,138	10,282	124
Millerton	521	299	452	377	126
Oroville (SWP)	3,425	2,617	3,188	3,110	119

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	1,098	93	1,331	675	163
Shasta	5,074	1,482	7,562	3,395	149
Folsom	1.527	208	3,811	1,623	94
New Melones	340	N/A	1,209	532	64
Millerton	468	114	1,752	595	79

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	34.61	9.27	50.70	27.07 (65)	128	0.00
Sacramento at Shasta Dam	64.54	11.04	103.04	53.16 (70)	121	0.00
American at Blue Canyon	57.97	15.64	94.93	57.24 (51)	101	0.00
Stanislaus at New Melones	19.21	N/A	41.62	24.25 (48)	79	0.00
San Joaquin at Huntington Lk	28.75	11.50	74.10	35.48 (52)	81	0.00

Bureau of Reclamation
Historical Archive and Report Database
Folsom Lake Daily Operations
Run Date: 4/14/2025

April 2025 | Folsom Lake Daily Operations

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	816.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1	452.93	835.8	19.2	11,211	1,469	0	0	77	0	0.00	0.30
2	454.94	856.9	21.1	12,236	1,505	0	0	77	35	0.10	0.00
3	456.56	874.0	17.2	10,073	1,301	0	0	77	46	0.13	0.00
4	457.93	888.6	14.6	8,825	1,329	0	0	81	46	0.13	0.00
5	458.45	894.2	5.6	7,861	1,670	3,238	0	89	50	0.14	0.00
6	458.47	894.4	0.2	7,236	1,644	5,325	0	98	61	0.17	0.00
7	458.51	894.9	0.4	7,763	2,628	4,816	0	91	11	0.03	0.10
8	458.66	896.5	1.6	7,412	2,153	4,308	0	86	53	0.15	0.00
9	458.86	898.6	2.1	8,307	2,661	4,404	0	91	68	0.19	0.00
10	459.03	900.5	1.8	8,293	2,621	4,600	0	100	50	0.14	0.00
11	459.39	904.3	3.9	8,711	2,668	3,908	0	111	64	0.18	0.00
12	459.45	905.0	0.6	7,185	1,993	4,675	0	118	72	0.20	0.00
13	459.55	906.1	1.1	6,862	1,936	4,173	0	115	93	0.26	0.00
Totals	N/A	N/A	89.4	111,975	25,578	39,447	0	1,211	649	1.82	0.40
Acre-Feet	N/A	N/A	89,400	222,102	50,734	78,243	0	2,402	1,287	N/A	N/A

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

Summary: Release (acre-feet)

Power	50,734
Spill	78,243
Outlet	0
Pumping Plant	2,402
Total Releases	131,379

Summary: Precipitation (Month/Inches)

This month	0.40
October 1, 2024 to date	17.62

Isobath 04/01-4/30 (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	Diss. Oxygen (mg/L) AFO	Diss. Oxygen (mg/L) AWP	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/ LP Unit 2	USP/LP Unit 3
Mar	48.2	47.3	49.2	50.2	51.3	51.9	54.2	N/A	N/A	3075	N/A	N/A	N/A	N/A
04/01	46.7	48.5	50.2	52.9	53.5	54.0	50.6	N/A	N/A	1347	836	M 1	B 2	A 97
04/02	45.5	48.4	51.1	52.4	54.2	54.8	51.7	N/A	N/A	1357	857	M 1	B 2	A 97
04/03	46.8	47.9	51.2	52.1	54.2	55.4	53.6	N/A	N/A	1353	874	M 1	B 2	A 97
04/04	47.8?	47.3	51.1	52.8	54.6	55.7	58.5	N/A	N/A	1345	889	M 1	B 2	A 97
04/05	48.7?	47.9	52.4	53.3	54.2	55.7	60.6	N/A	N/A	4570	894	M 1	B 1	A 97
04/06	49.8?	48.5	52.9	53.3	53.9	54.4	61.1	N/A	N/A	6941	894	M 1	B 1	A 97
04/07	50.4?	48.5	52.0	53.2	54.0	54.5	61.5	N/A	N/A	7032	895	M 1	B 1	A 98
04/08	50.7?	49.5	52.4	52.7	53.5	54.1	60.2	N/A	N/A	6842	896	M 1	B 1	A 98
04/09	51.4?	50.1	53.0	53.5	54.3	54.7	65.1	N/A	N/A	6891	899	M 1	B 1	A 98
04/10	52.1?	50.2	53.1	53.9	54.8	55.3	66.3	N/A	N/A	6883	900	M 1	B 1	A 98
04/11	52.6!	51.2	52.7	53.9	55.0	55.6	65.6	N/A	N/A	6118	904	M 1	B 1	A 98
04/12	53.2!	51.9	52.7	53.5	54.6	55.3	61.1	N/A	N/A	6107	905	M 1	B 1	A 98

Date	MDT, Water NFA	MDT, Water ARP	MDT, Water AFD1	MDT, Water AFO	MDT, Water AWP	MDT Water AWB	MDT, Air, CSU	Diss. Oxygen (mg/L) AFO	Diss. Oxygen (mg/L) AWP	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/ LP Unit 2	USP/LP Unit 3
04/13	53.1[!]	52.3	54.2	54.1	54.8	55.2	65.8	N/A	N/A	6088	906	M 1	B 1	A 98
04/14	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/19	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/22	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/23	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/25	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
04/29	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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	Diss. Oxygen (mg/L) AFO	Diss. Oxygen (mg/L) AWP	Release (CFS) Nimbus	Storage (TAF) Folsom	USP/LP Unit 1	USP/ LP Unit 2	USP/LP Unit 3
04/30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Apr	49.9	49.4	52.2	53.2	54.3	55.0	60.1	N/A	N/A	4836	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Total AF	124708	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

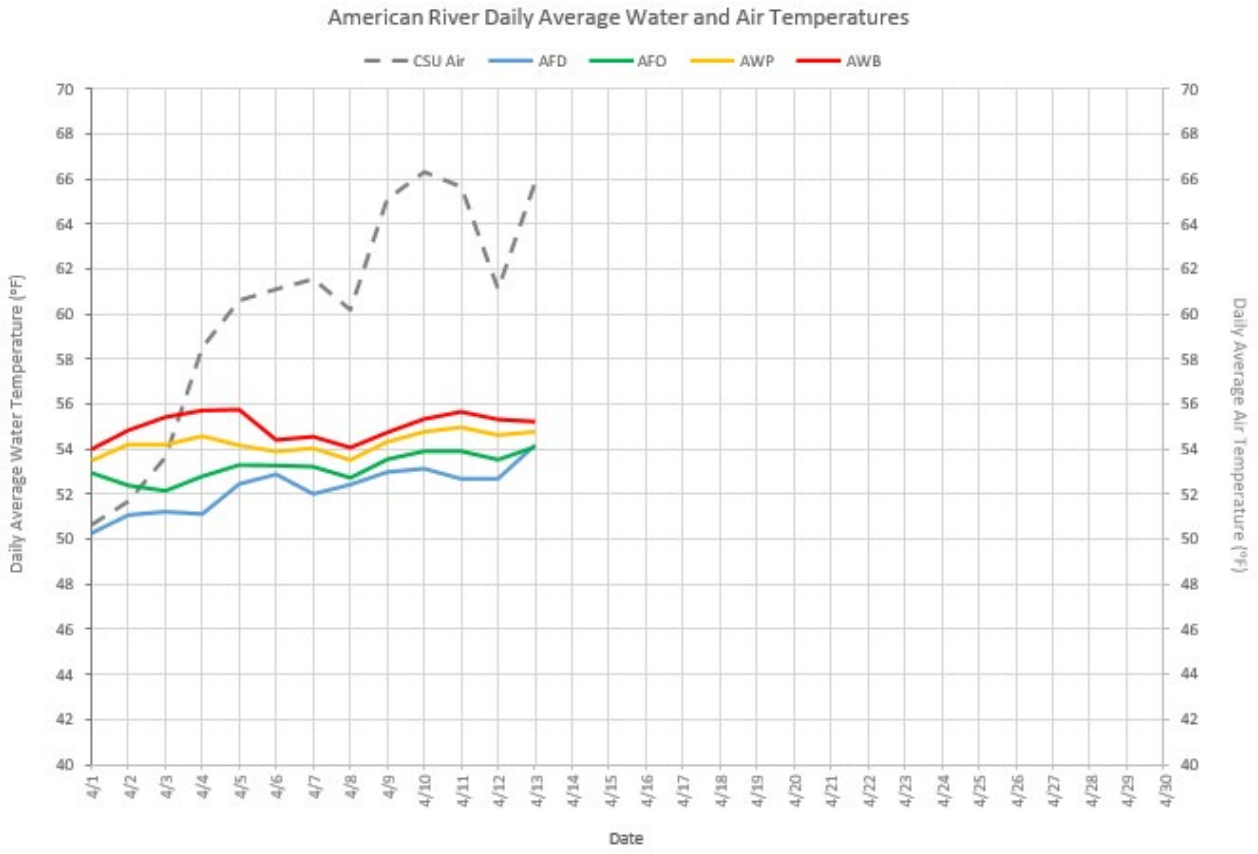

Figure 13. American River Daily Average Water and Air Temperatures

Figure 13 is a line graph depicting daily average water and air temperatures (40-70) in degrees Fahrenheit over dates 4/1 to 4/30. This graph shows data for CSU Air, AFD, AFO, AWP, and AWB.

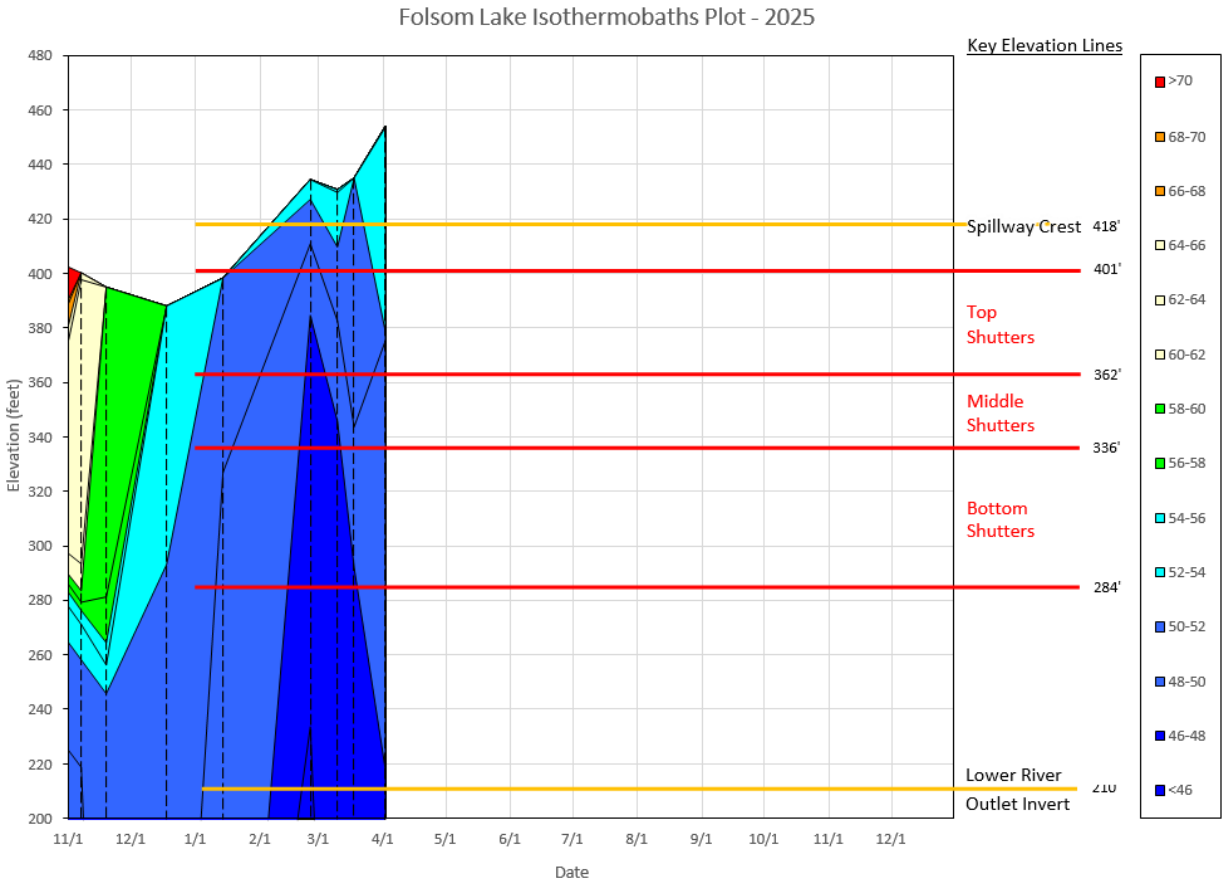

Figure 14. Folsom Lake Isothermobaths Plot – 2025

Figure 14 is a graph showing elevation (200-480 feet) over dates (11/1/24-12/1/25). The graph also shows Key Elevation lines, for Spillway Crest, Top Shutters, Middle Shutters, Bottom Shutters, and Lower River Outlet Invert.

DRAFT April 2025 Outlook

50% Inflow/Runoff Exceedance Hydrology - Storages

Table 8. Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Folsom Storage	817	923	958	955	762	588	547	505	478	468	467	466	533
Folsom Elevation	N/A	461	464	464	446	427	422	417	414	412	412	412	421

Table 9. Monthly River Releases (TAF/cfs)

Facility	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
American TAF	N/A	339	307	170	289	264	119	123	119	123	154	264	246
American cfs	N/A	5700	5000	2856	4700	4300	2000	2000	2006	2000	2500	4750	4000

90% Inflow/Runoff Exceedance Hydrology - Storages

Table 10. Federal End of the Month Storage/Elevation (TAF/Feet)

Facility	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Folsom Storage	817	923	914	889	664	547	508	441	380	335	321	354	450
Folsom Elevation	N/A	461	460	458	436	422	418	409	400	393	391	396	410

Table 11. Monthly River Releases (TAF/cfs)

Facility	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
American TAF	N/A	339	240	149	307	197	104	108	104	108	77	70	77
American cfs	N/A	5700	3902	2500	5000	3205	1750	1750	1750	1750	1250	1255	1250

Table 12. WY 2025 American River Baseflow Table

Month	Index Used for Index-based MRR	Flood Mgmt (TAF)	ARI or SRI	Index Based MRR (cfs)	RDPB-based MRR for fall-run Chinook salmon (applicable in Jan and Feb)	RDPB-based MRR for steelhead (applicable Feb through May)	Controlling MRR (cfs)	Actual Average Monthly Nimbus releases[1] (cfs)
October	May ARI[2] (50% exceedance)	0	2,329	1,500	N/A	N/A	1,500	1,545
November	May ARI[2] (50% exceedance)	0	2,329	2,000	N/A	N/A	2,000	1,997
December	May ARI[2] (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)	171	1,320	1,118	1,215	1,400	1,400	4,838
March	March ARI (90% exceedance)	110	1,539	1,334	N/A	950	1,334	3,075
April	April ARI (90% exceedance)	N/A	2,080	1,425	N/A	970	1,425	N/A

Month	Index Used for Index-based MRR	Flood Mgmt (TAF)	ARI or SRI	Index Based MRR (cfs)	RDPB-based MRR for fall-run Chinook salmon (applicable in Jan and Feb)	RDPB-based MRR for steelhead (applicable Feb through May)	Controlling MRR (cfs)	Actual Average Monthly Nimbus releases[1] (cfs)
May	May ARI[2] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
June	May ARI[2] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
July	May ARI[2] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
August	May ARI[2] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
September	May ARI[2] (90% exceedance)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

MRR= Minimum Release Requirements; RDPA= Redd Dewatering Protective Adjustment; ARI= American River Index; SRI= Sacramento River Index

[1] Average of daily release over the month from sum of Power, Spill, and Hatchery flows (DailyOperationsNAT).
[2] 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.