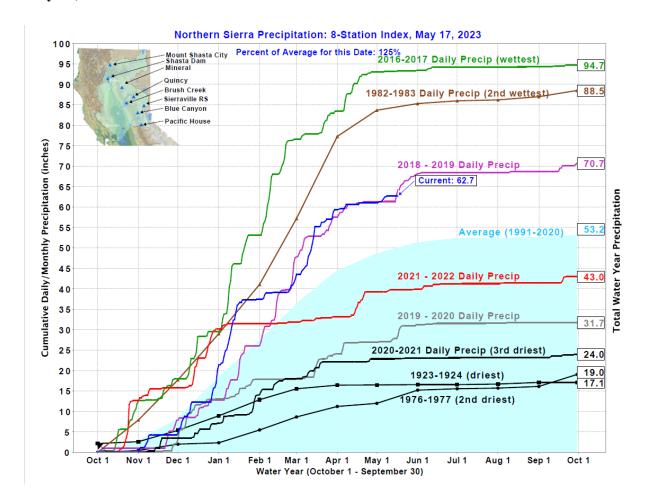


Sacramento River Temperature Task Group Meeting Packet

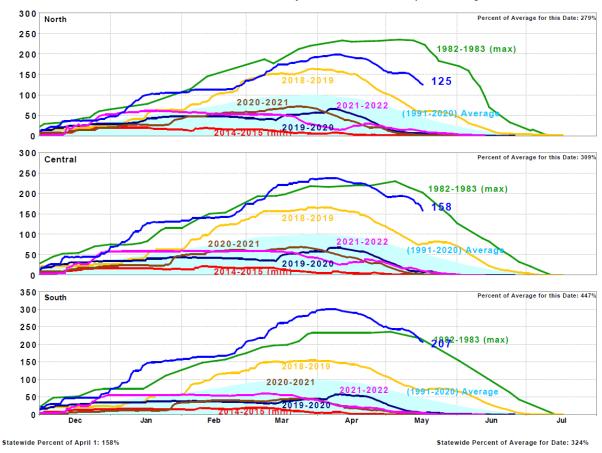
May 18, 2023



Northern Sierra Precipitation: 8-Station Index, May 17, 2023

This figure shows a line graph precipitation at the Northern Sierra 8-station Index. The graph includes the current cumulative daily and monthly precipitation, 62.7 (125% 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), 2018-2019 (70.7), 2021-2022 (43.0), 2019-2020 (31.7), 2020-2021 (24.0 3rd driest), 1976-1977 (19.0 2nd driest), and 1923-1924 (17.1 driest).





California Snow Water Content, May 17, 2023, Percent of April 1 Average

This figure shows three line graphs of percent snow water content for North, Central, and Southern California December – July. The graph shows 125%, 158%, and 207% of current April 1 average for North, Central, and Southern California, respectively. The graph also shows 1991-2020 average, 1982-1983 (max), 2014-2015 (minimum), 2018-2019, 2019-2020, 2020-2021, and 2021-2022.



Daily Central Valley Project Water Supply Report

United States Department of the Interior U.S. Bureau of Reclamation, Central Valley Project-California Daily CVP Water Supply Report

May 16, 2023

Run Date: May 17, 2023

Table 4. Reservoir Releases in Cubic Feet Per Second

Reservoir	Dam	WY 2020	WY 2021	15-Year Median
Trinity	Lewiston	799	1,841	799
Sacramento	Keswick	7,472	3,258	6,591
Feather	Oroville (SWP)	1,100	800	1,550
American	Nimbus	1,011	1,000	1,516
San Joaquin	Friant	346	1,199	380

Table 5. Storage in Major Reservoirs in Thousands of Acre-Feet

Reservoir	Capacity	15-Yr Avg	WY 2021	WY 2021	% O 15 Yr Avg
Trinity	2,448	1,708	1,313	771	45
Shasta	4,552	3,498	2,317	1,794	51
Folsom	977	704	356	738	105
New Melones	2,420	1,448	1,473	926	64
Fed. San Luis	966	649	397	354	55
Total North CVP	11,363	8,008	5,856	4,583	57
Millerton	520	309	216	361	117
Oroville (SWP)	3,538	2,451	1,497	1,885	77

Table 6. Accumulated Inflow for water Year to Date in Thousands of Acre-Feet

Reservoir	Current WY 2021	WY 1977	WY 1983	15-Yr Avg	% O 15 Yr Avg
Trinity	359	109	1,455	672	53
Shasta	2,054	1,570	7,984	3,381	61
Folsom	1,159	223	4,061	1,582	73
New Melones	394	NA	1,282	530	74
Millerton	508	118	1,892	586	87

Table 7. Accumulated Precipitation for Water Year to Date in Inches

Reservoir	Current WY 2021	WY 1977	WY 1983	Avg (N Yrs)	% of Avg	Last 24 Hours
Trinity at Fish Hatchery	17.38	9.42	52.79	28.54 (60)	61	0.00
Sacramento at Shasta Dam	39.54	11.92	107.39	56.12 (65)	70	0.00
American at Blue Canyon	60.59	15.64	99.18	60.48 (47)	100	0.00
Stanislaus at New Melones	19.30	NA	43.14	25.27 (44)	76	0.00
San Joaquin at Huntington LK	23.94	11.50	77.00	37.39 (47)	64	0.00

Sacramento River Station Temperature Summary Report

Date			MDWT SPP ¹	MDWT KWK					MDWT RBD				MDWT NFH	Shasta Genera-	MDR Spring Creek PP	Keswick	MDAT RDD	MDAT BSF	MDAT RDB
Apr	48.3	47.6	47.7	48.9	49.6	50.5	52.9	55.3	54.8	50.2	45.2	44.9	46.6	3078	676	4563	59.7	58.1	59.6
05/01	49.7	48.1	48.7	_ _	500	50.4	52.2	54.6	55.5 ^A	50.2	46.3	46.1	48.1	7617	699	9105	57.0	54.5	54.1
05/02	50.2	48.5	48.9	B -	49.4	49.8	51.4	52.3	53.1	50.3	46.7	46.3	47.6	8769	75	9094	56.5	53.5	53.6
05/03	50.5	48.8 ^A	48.8	49.7 ^A	50.1	50.5	51.9	52.6	53.5	51.4	46.1	46.4	48.2	7740	505	9097	60.0	57.7	57.8
05/04	50.1A	48.9	49.1	50.0	50.0	50.3	51.4	53.0	53.6 ^A	49.8	45.8	46.6	47.4	9981	190	9106	55.0 ^E	54.1	54.4
05/05	50.1	48.8	49.1 ^A	49.3	49.4	49.8	50.7	51.5	52.0	49.7	46.0	46.7 ^A	47.3 ^A	10366	655	9252	56.5 ^E	53.5	54.0
05/06	50.6	49.2	48.8	49.4 ^A	49.7	49.8	50.7	51.1 ^A	51.8	49.4	45.8 ^A	46.7	48.2	9940	434	8018	53.0	51.5	51.9
05/07	50.8	49.3	49.1	49.7 ^A	49.8	50.0	51.2	52.0	52.5 ^A	49.0	46.0	46.8	47.3	9420	58	6756	55.0	54.5	56.0
05/08	51.0	50.0	48.8	50.0 ^A	50.1	50.4	51.3	52.0	52.6 ^A	49.5	46.4	46.8	48.2	10979	85	8808	56.0	55.4	55.2
05/09	51.3	50.1	49.1	50.8 ^A	51.1	51.4	52.4	52.8	53.5 ^A	50.6	46.4	46.9	49.3	10207	64	8157	60.5	57.3	59.3
05/10	51.1	49.1	49.0	51.2 ^A	51.4	51.8	53.4	54.3	55.2 ^A	51.5	46.6	47.0	50.0	8290	61	7250	60.5	58.3	59.6
05/11	50.8	49.7	49.2	_C _	50.6	51.1	53.3	55.0	56.2 ^A	52.8	47.2	47.3	50.9	9659	273	8265	66.0	63.9	64.5
05/12	51.3	50.5	50.1	50.7	51.3	51.8	53.7	55.1	56.2	53.5	47.6	47.6	52.0	11382	37	12974	73.5	69.5	71.6
05/13	51.4	50.2	49.7	51.5	52.0	52.5	54.6	56.4	57.7	54.2	48.1	48.1	52.2	9647	37	13137	80.0	74.5	78.7
05/14	51.4	49.9	49.8	51.4	51.9	52.5	54.9	57.0	58.5	54.3	48.6	48.7	52.1	9659	37	13078	81.0	74.8	78.3
05/15	51.1	50.1	49.8	51.1	51.6	52.2	54.6	56.7	58.3 ^A	54.3	49.1	49.3	52.3	11282	37	13005	74.5	70.8	72.5
05/16	51.4	50.3	49.8	51.1	51.6	52.2	54.6	56.9 ^A	58.0 ^A	54.8 ^A	49.3	49.9	52.5	11254	37	13050	76.0	73.1	74.3
May	50.8	49.5	49.2	50.5	50.6	51.0	52.6	54.0	54.9	51.6	47.0	47.3	49.6	9762	205	9885	63.8	61.0	62.2

Sacramento River Station Temperature Summary Table

	MDR Shasta Generation		MDR Keswick Total
CFS	156192	3284	158152
AF	309800	6514	313688

Legend

A = 1-9 hours of data missing (Average includes estimations)

B = 10 or more hours of data missing (Average not calculated)

C = Station out of service

D = Record high air temperature

E = Record low air temperature

MDWT = Mean Daily Water Temperature (Fahrenheit)

MDR = Mean Daily Release (CFS)

MDAT = Mean Daily Air Temperatures (Fahrenheit)

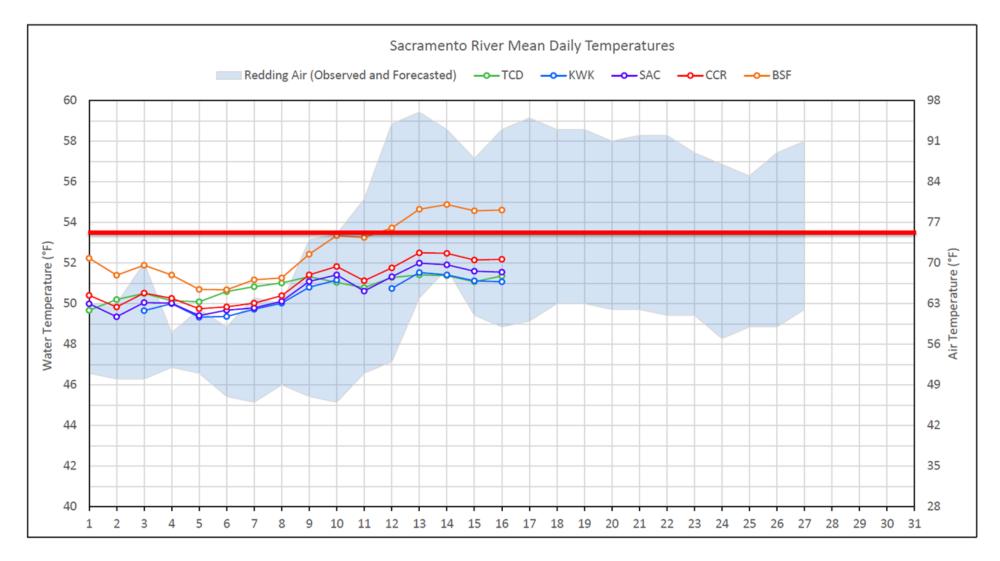
Notes

1 Temperatures are weighted averages based on individual penstock flow and temperature

X Highlighted cells in the TCD column indicate a TCD change was made on that day

2 Current Sacramento River control point (see page 4 for more details)

3 Data is currently being collected locally and periodically downloaded. Once downloaded and certified by USGS, missing data will be added.



Sacramento River Mean Daily Temperatures

This figure shows mean Sacramento River daily temperatures in degrees Fahrenheit at Shasta Power Plant and various stations 0.8, 4.8, 9.7, and 25 miles downstream of Keswick Dam for the past 24 days. It also includes a shaded area depicting observed and forecasted air temperatures in degrees Fahrenheit in Redding California.

Station Details

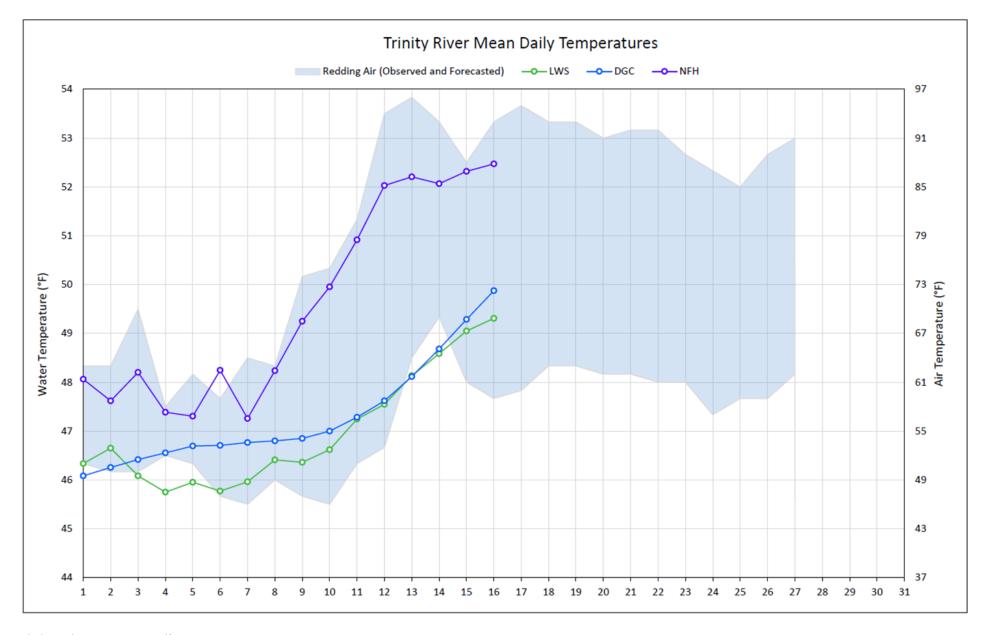
Code	Body of Water	Location ¹
TCD	N/A	Shasta Power Plant
<u>SHD</u>	Sacramento River	0.3 miles downstream of Shasta Power Plant
SPP	N/A	Spring Creek Power Plant
<u>KWK</u>	Sacramento River	0.8 miles downstream of Keswick Dam
<u>SAC</u>	Sacramento River	4.8 miles downstream of Keswick Dam
CCR	Sacramento River	9.7 miles downstream of Keswick Dam
<u>BSF</u>	Sacramento River	25 miles downstream of Keswick Dam
<u>JLF</u>	Sacramento River	34 miles downstream of Keswick Dam
BND	Sacramento River	41 miles downstream of Keswick Dam
<u>RDB</u>	Sacramento River	58 miles downstream of Keswick Dam
<u>IGO</u>	Clear Creek	7.3 miles downstream of Whiskeytown Dam

Water Right Temperature Control Points

River	Point	Temp (°F)	Begin Date	End Date		
Sacramento	SAC	55	06/15/2021	05/02/2022		
Sacramento	SAC	58	05/02/2022	06/07/2022		
Sacramento	SAC	54.5	06/07/2022	TBD		

Notes:

¹ Distances are approximate



Trinity River Mean Daily Temperatures

This figure shows mean Trinity River daily temperatures in degrees Fahrenheit at stations 1.1, 19, and 37 miles downstream of Lewiston Dam for the past 24 days. It also includes a shaded area depicting observed and forecasted air temperatures in degrees Fahrenheit in Redding California.

Station Details

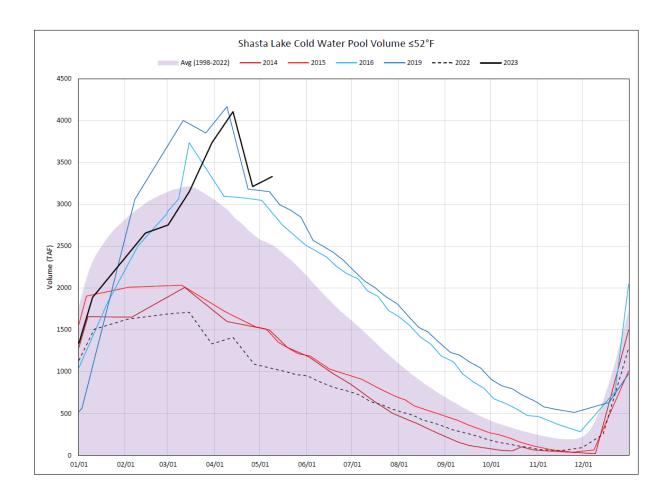
Code	de Body of Water Location ¹						
<u>LWS</u>	Trinity River	1.1 miles downstream of Lewiston Dam					
<u>DGC</u>	Trinity River	19 miles downstream of Lewiston Dam					
<u>NFH</u>	Trinity River	38 miles downstream of Lewiston Dam					

Water Right Temperature Control Points

River	Point	Temp. (°F)	Begin Date	End Date
Trinity	DGC	56	Sep-15	Oct-01
Trinity	NFH	56	Oct-01	Dec-31

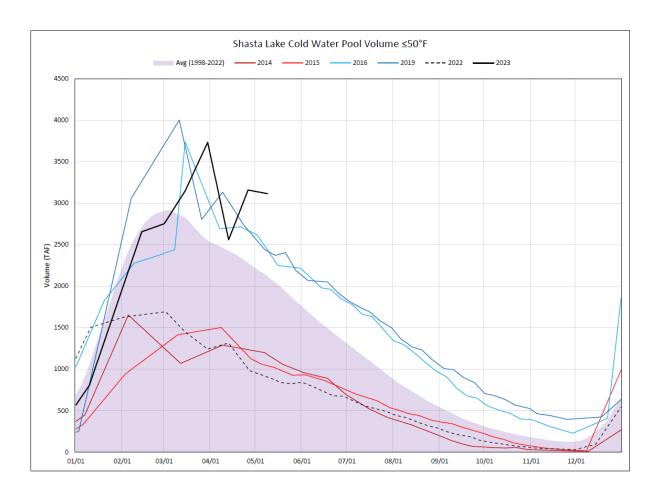
Notes

¹ Distances are approximate



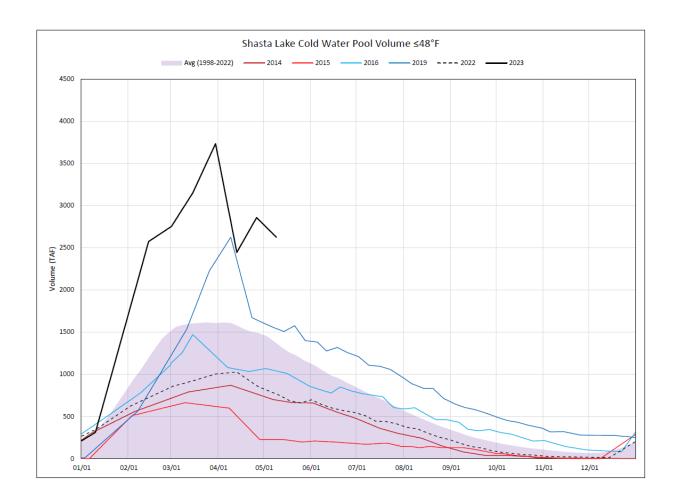
Shasta Lake Cold Water Pool Volume ≤52°F

This figure is a line graph showing Shasta Lake Cold Water Pool Volume equal to or less than 52 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 05/15.



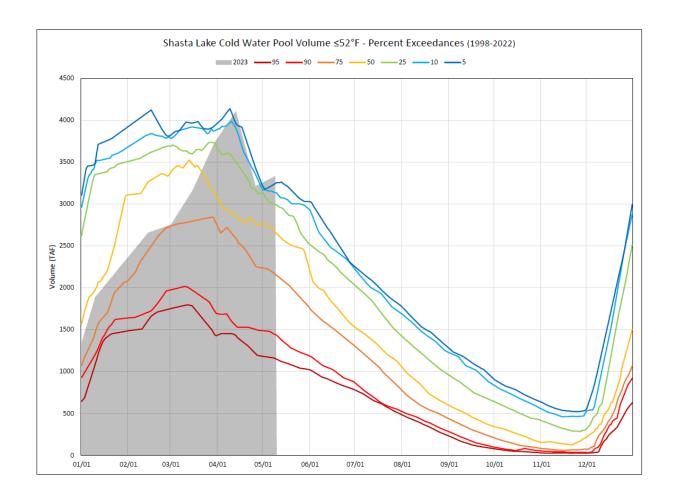
Shasta Lake Cold Water Pool Volume ≤50°F

This figure is a line graph showing Shasta Lake Cold Water Pool Volume equal to or less than 50 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 05/15.



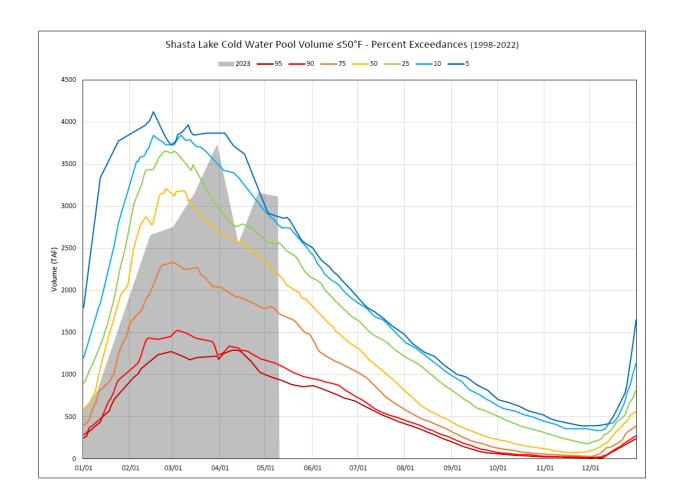
Shasta Lake Cold Water Pool Volume ≤48°F

This figure is a line graph showing Shasta Lake Cold Water Pool Volume equal to or less than 48 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 05/15.



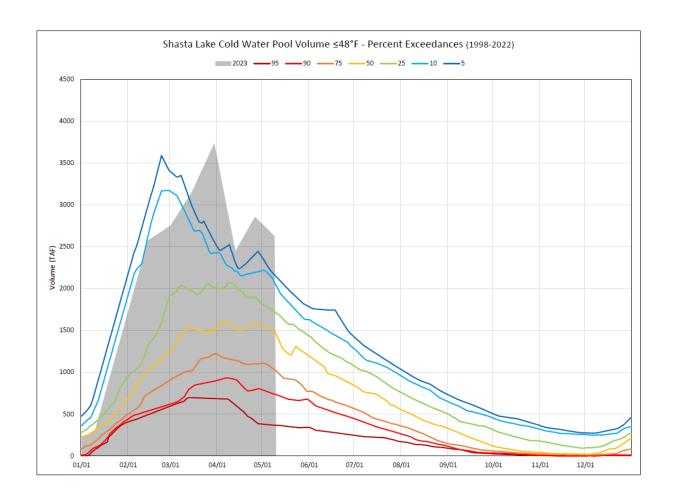
Shasta Lake Cold Water Pool Volume ≤52°F - Percent Exceedances (1998-2022)

This figure is a line graph showing Shasta Lake Cold Water Pool Volume less than or equal to 52 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 05/15 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



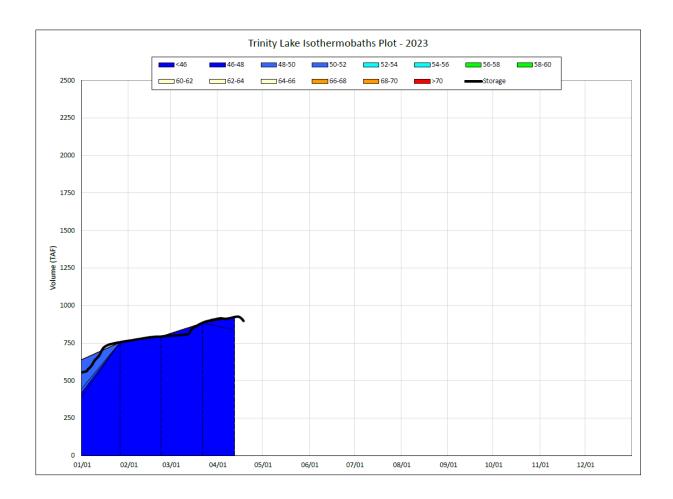
Shasta Lake Cold Water Pool Volume ≤50°F – Percent Exceedances (1988-2022)

This figure is a line graph showing Shasta Lake Cold Water Pool Volume less than or equal to 50 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 05/15 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



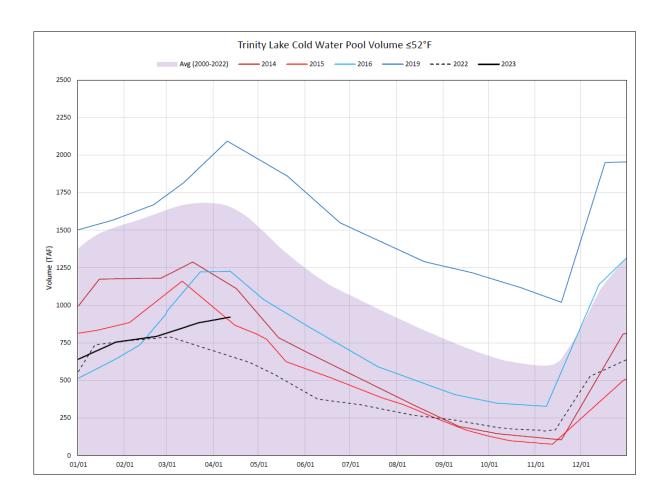
Shasta Lake Cold Water Pool Volume ≤48°F – Percent Exceedances (1998-2022)

This figure is a line graph showing Shasta Lake Cold Water Pool Volume less than or equal to 48 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 05/15 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



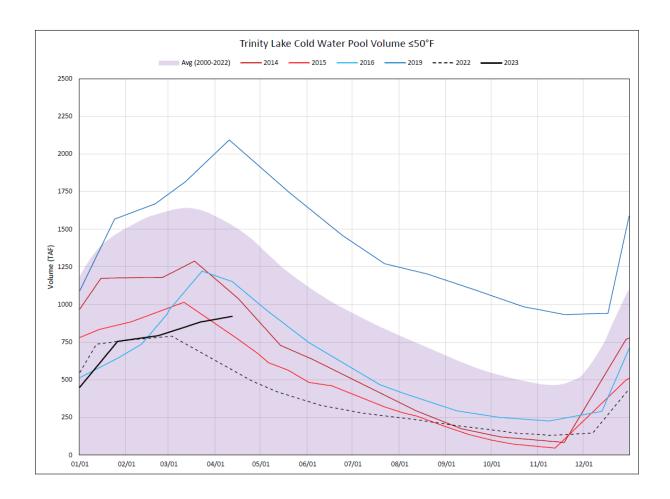
Trinity Lake Isothermobaths Plot – 2023

A chart that shows the temperature in degrees Fahrenheit and storage volume in thousands of acre-feet for 01/01 to 04/14 in Trinity Lake



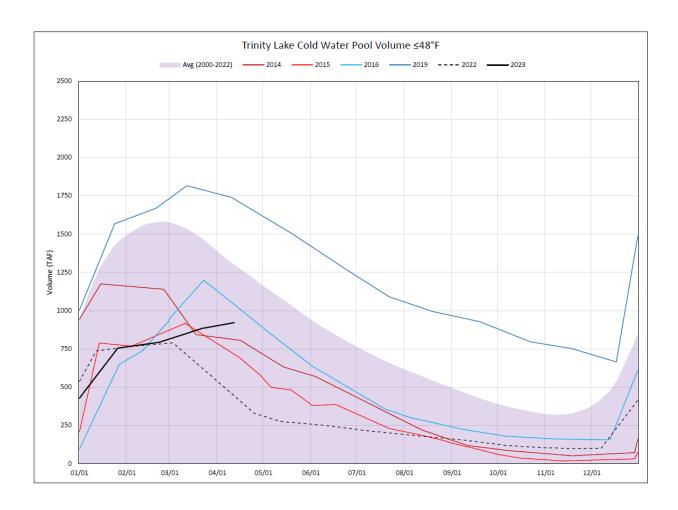
Trinity Lake Cold Water Pool Volume ≤52°F

This figure is a line graph showing Trinity Lake Cold Water Pool Volume equal to or less than 52 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 04/14.



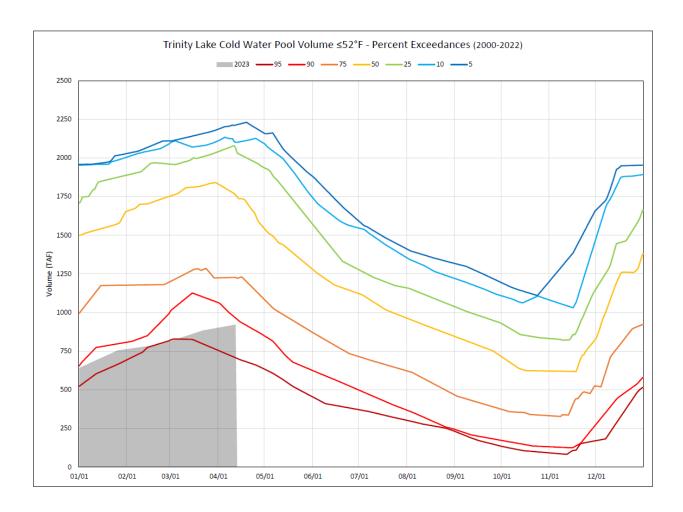
Trinity Lake Cold Water Pool Volume ≤50°F

This figure is a line graph showing Trinity Lake Cold Water Pool Volume equal to or less than 50 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 04/14.



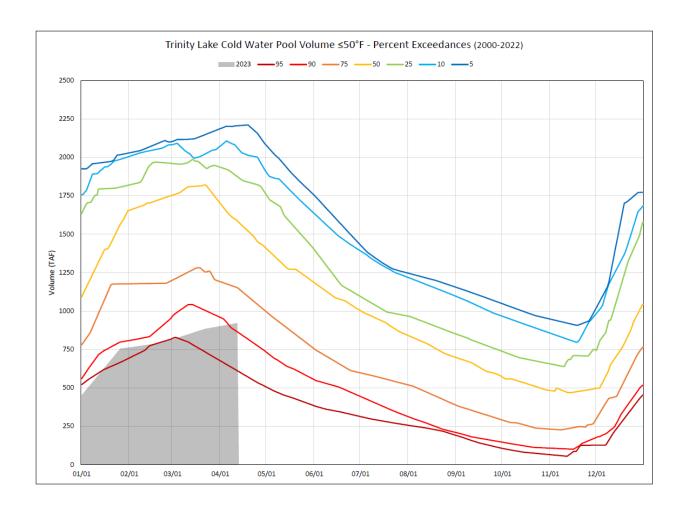
Trinity Lake Cold Water Pool Volume ≤48°F

This figure is a line graph showing Trinity Lake Cold Water Pool Volume equal to or less than 48 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 04/14.



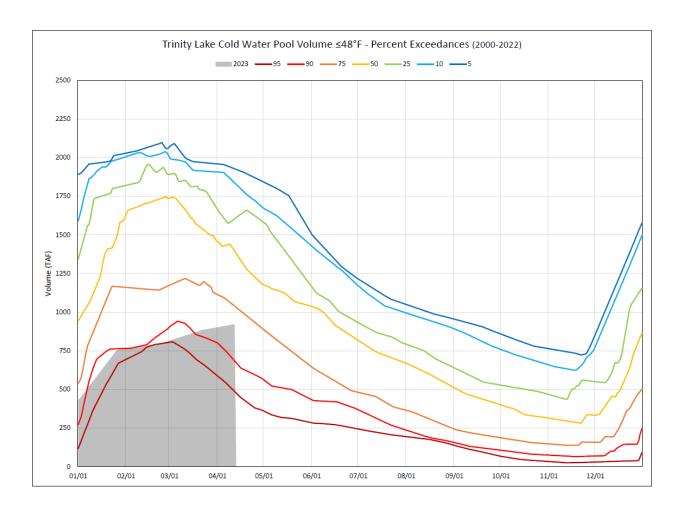
Trinity Lake Cold Water Pool Volume ≤52°F – Percent Exceedances (2000-2022)

This figure is a line graph showing Trinity Lake Cold Water Pool Volume less than or equal to 52 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 04/14 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



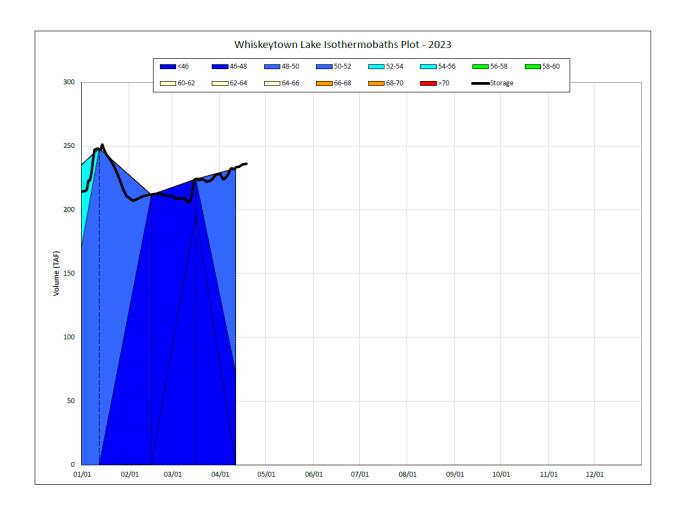
Trinity Lake Cold Water Pool Volume ≤50°F – Percent Exceedances (2000-2022)

This figure is a line graph showing Trinity Lake Cold Water Pool Volume less than or equal to 50 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 04/14 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



Trinity Lake Cold Water Pool Volume ≤48°F – Percent Exceedances (2000-2022)

This figure is a line graph showing Trinity Lake Cold Water Pool Volume less than or equal to 48 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 04/14 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



Whiskeytown lake Isothermobaths Plot – 2023

A chart that shows the temperature in degrees Fahrenheit and storage volume in thousands of acre-feet for 01/01 to 04/14 in Whiskeytown Lake.



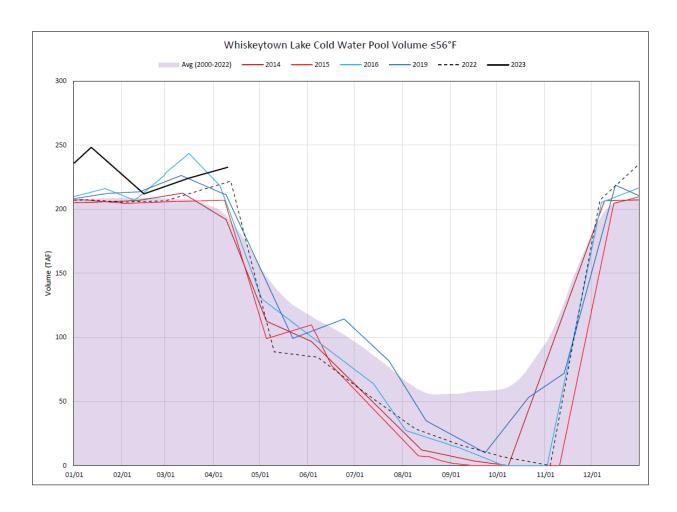
Whiskeytown Lake Cold Water Pool Volume ≤60°F

This figure is a line graph showing Whiskeytown Lake Cold Water Pool Volume equal to or less than 60 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 04/14.



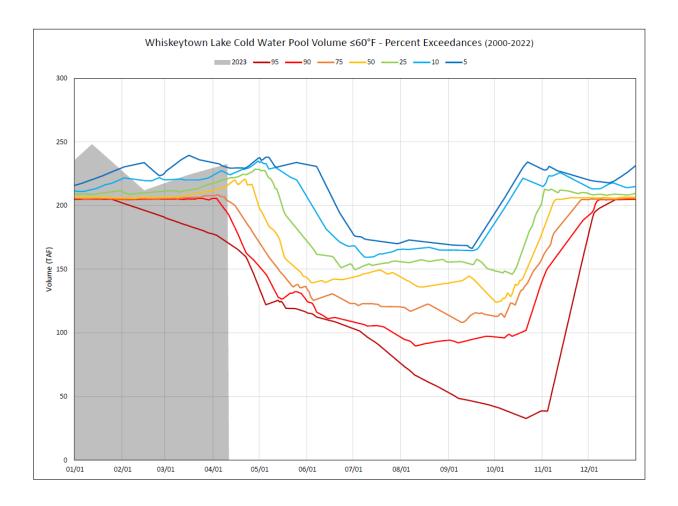
Whiskeytown Lake Cold Water Pool Volume ≤58°F

This figure is a line graph showing Whiskeytown Lake Cold Water Pool Volume equal to or less than 58 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 04/14.



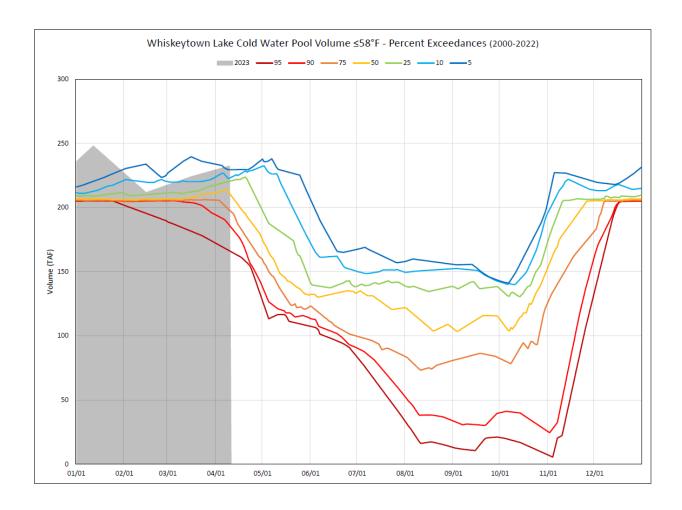
Whiskeytown Lake Cold Water Pool Volume ≤56°F

This figure is a line graph showing Whiskeytown Lake Cold Water Pool Volume equal to or less than 56 degrees Fahrenheit from 01/01 to 12/01. It includes a shaded area of the average 1998-2022 and lines depicting 2014, 2015, 2016, 2019, and 2022 data. The line showing 2023 data is from 01/01 to 04/14.



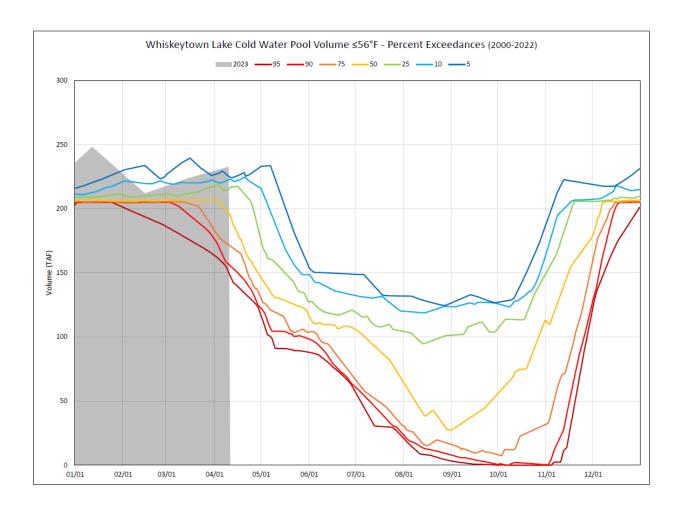
Whiskeytown Lake Cold Water Pool Volume ≤60°F – Percent Exceedances (2000-2022)

This figure is a line graph showing Whiskeytown Lake Cold Water Pool Volume less than or equal to 60 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 04/14 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



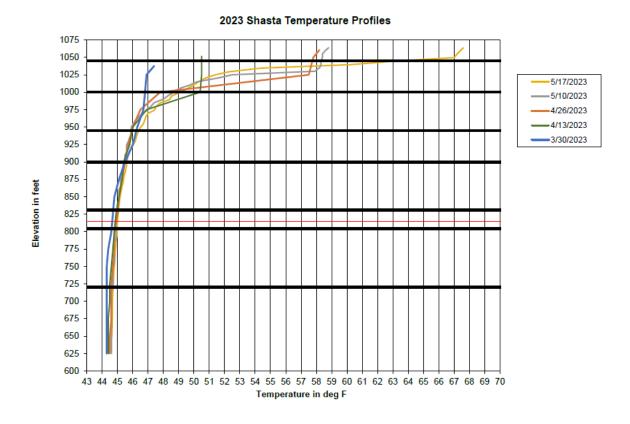
Whiskeytown Lake Cold Water Pool Volume ≤58°F – Percent Exceedances (2000-2022)

This figure is a line graph showing Whiskeytown Lake Cold Water Pool Volume less than or equal to 58 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 04/14 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



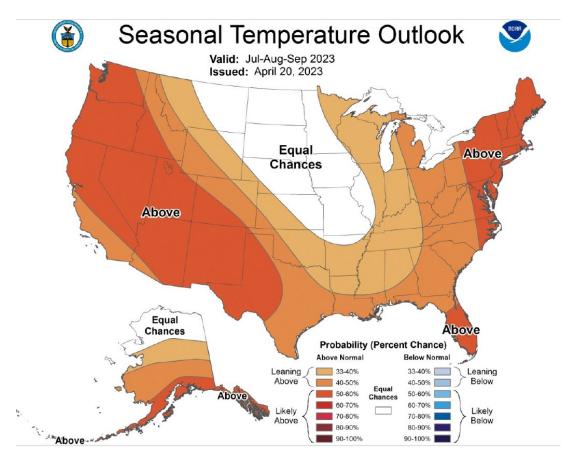
Whiskeytown Lake Cold Water Pool Volume ≤56°F – Percent Exceedances (2000-2022)

This figure is a line graph showing Whiskeytown Lake Cold Water Pool Volume less than or equal to 56 degrees Fahrenheit as percent exceedances from 01/01 to 12/01. It includes a shaded area for 2023 data from 01/01 to 04/14 and lines depicting 95, 90, 75, 50, 25, 10, and 5% exceedances.



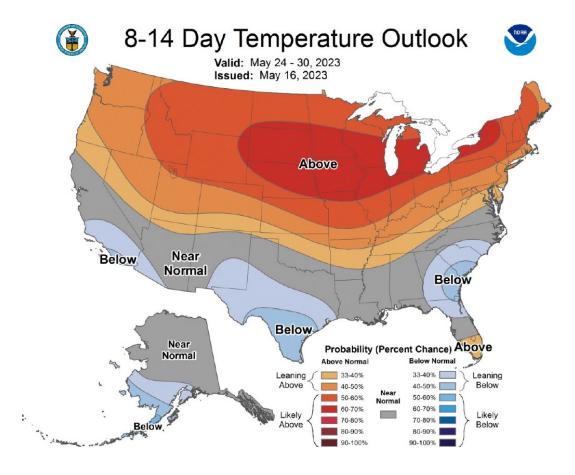
2023 Shasta Temperature Profiles

This figure shows a line plot on of Shasta Temperature in degrees Fahrenheit at elevations 625-1075 ft for March 30, April 13 and 26, and May 10 and 17, 2023.



Seasonal Temperature Outlook

This figure shows a seasonal temperature outlook with the percent probability of near normal, below, or above normal temperatures for all of the United States. The figure is valid for July-September, 2023 and was issued on April 20, 2023.



8-14 Day Temperature Outlook

This figure shows a 8-14 day temperature outlook with the percent probability of near normal, below, or above normal temperatures for all of the United States. The figure is valid for May 24-30, 2023 and was issued on May 16, 2023.

Estimated CVP Operations 90% Exceedance

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

Facility	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Trinity	910	858	974	1130	1126	1078	1032	1018	1015	1036	1070	1156	1267
Trinity Elev.	N/A	2238	2252	2269	2269	2264	2259	2257	2257	2259	2263	2272	2283
Whiskeytown	228	238	238	238	238	238	238	206	206	206	206	206	206
Whiskeytown Elev.	N/A	1209	1209	1209	1209	1209	1209	1199	1199	1199	1199	1199	1199
Shasta	3771	4362	4343	4195	3865	3538	3302	3195	3173	3216	3333	3610	3749
Shasta Elev.	N/A	1061	1060	1055	1043	1030	1021	1016	1015	1017	1022	1033	1038
Folsom	667	812	950	911	794	669	661	578	502	442	447	527	677
Folsom Elev.	N/A	451	464	460	449	436	435	426	417	409	410	420	437
New Melones	1393	1478	1682	1887	1915	1879	1865	1821	1834	1848	1861	1874	1901
New Melones Elev.	N/A	1001	1022	1042	1044	1041	1040	1036	1037	1038	1039	1041	1043
San Luis	928	964	877	697	353	113	82	69	93	197	339	275	353
Total	7897	8711	9063	9058	8291	7514	7181	6887	6823	6944	7255	7647	8153

State End of the Month Reservoir Storage (TAF)

Facility	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Oroville	2908	3203	3323	3318	2722	2270	1926	1819	1702	1658	1808	2060	2340
Oroville Elev.	N/A	878	886	886	844	807	776	765	753	748	764	788	813
State San Luis	1062	1027	1059	990	939	873	896	643	542	498	553	576	600
Total San Luis (TAF)	1990	1991	1936	1687	1291	986	979	712	635	695	891	851	953

Monthly River Releases (TAF/cfs)

River	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Trinity (TAF)	309	257	38	28	53	52	23	18	18	18	17	18
Trinity (cfs)	5194	4188	639	456	857	870	373	300	300	300	300	300
Clear Creek (TAF)	12	17	17	9	9	9	12	12	12	12	11	22
Clear Creek (cfs)	200	281	284	150	150	150	200	200	200	200	200	363
Sacramento (TAF)	256	615	476	553	506	416	342	268	277	277	250	492
Sacramento (cfs)	4300	10000	8000	9000	8225	7000	5571	4500	4500	4500	4500	8000
American (TAF)	416	461	416	277	246	119	123	119	123	108	83	92

River	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
American (cfs)	7000	7500	7000	4500	4000	2000	2000	2000	2000	1750	1500	1500
Stanislaus (TAF)	83	96	56	18	18	18	49	12	12	13	12	12
Stanislaus (cfs)	1400	1555	940	300	300	300	797	200	200	219	221	200
Feather (TAF)	595	633	321	418	424	428	135	104	108	108	97	108
Feather (cfs)	10000	10300	5400	6800	6900	7200	2200	1750	1750	1750	1750	1750

Trinity Diversions (TAF)

Diversion Facility	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Carr PP	0	1	11	9	10	9	0	6	1	1	2	1
Spring Creek PP	27	0	0	0	0	0	22	0	1	8	20	6

Delta Summary (TAF)

Facility	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Tracy	144	215	250	265	265	255	165	136	186	225	66	235
USBR Banks	0	0	0	0	0	0	42	42	42	0	0	0
Contra Costa	9.5	9.5	9.5	7.4	8.3	9.5	14	14	14	13.7	13.7	10.5
Total USBR	153	225	260	272	273	265	221	192	242	239	80	246
State Export	244	332	363	439	441	426	83	192	229	155	105	160
Total Export	397	557	623	711	714	691	304	384	471	394	185	406
COA Balance	18	18	18	18	18	18	18	18	18	18	17	17
Vernalis (TAF)	1660	1555	818	444	260	207	172	74	75	76	82	98
Vernalis (cfs)	27904	25294	13749	7230	4237	3477	2798	1242	1225	1244	1482	1599
Old/Middle River calc. cfs	6827	3819	-2460	-6247	-7631	-7963	-3139	-5001	-5938	-4962	-2484	-4950
Computed DOI	55690	48981	22357	10281	6881	7800	8426	5497	7271	9142	11400	13307
Excess Outflow	27669	23213	3833	2277	2879	4791	944	992	2765	3140	0	1903
% Export/Inflow	10%	15%	28%	44%	52%	52%	32%	49%	48%	42%	21%	33%
% Export/inflow std.	35%	35%	35%	65%	65%	65%	65%	65%	65%	65%	45%	35%

Hydrology

Statistic	Trinity	Shasta	Folsom	New Melones
Water Year Inflow (TAF)	1430	5,593	4,437	2232

Statistic	Trinity	Shasta	Folsom	New Melones
Year to Date + Forecasted % of mean	118%	101%	163%	211%

CVP actual operations do not follow any forecasted operation or outlook; actual operations are based on real-time conditions.

CVP operational forecasts or outlooks represent general system-wide dynamics and do not necessarily address specific watershed/tributary details.

CVP releases or export values represent monthly averages.

 $\hbox{\it CVP Operations are updated monthly as new hydrology information is made available December through Map}\\$

Sacramento River Modeled Temperature 2023 Apr 90%-Exceedance Water Outlook - 25% L3MTO Meteorology

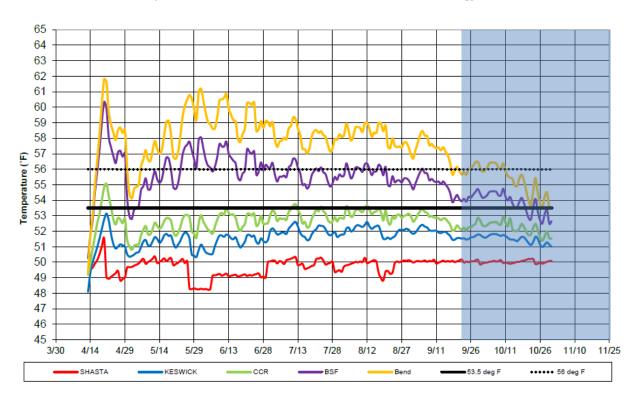


Figure 1: Sacramento River Modeled Temperature – April 2023 90%-Exceedance Water Outlook Historical 25% Meteorology

This figure shows Sacramento River modeled temperature in degrees Fahrenheit at Shasta and Keswick Dams, above Clear Creek, Balls Ferry Bridge, and Bend Area from 4/10 to 9/10 in percent exceedances. It also shows the desired degree range between 53.5 and 56 degrees Fahrenheit.

Sacramento River Modeled Temperature 2023 Apr 90%-Exceedance Water Outlook - 25% L3MTO Meteorology

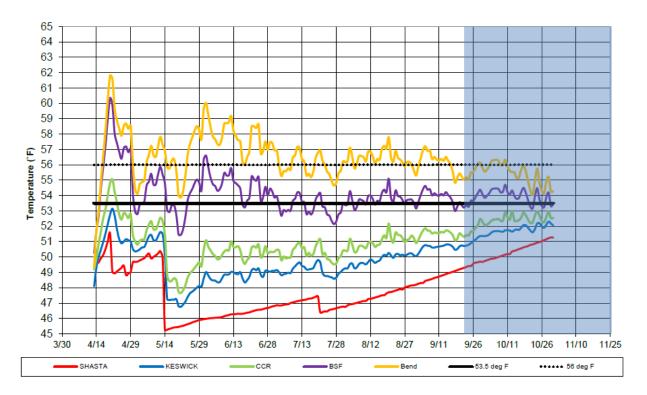


Figure 2: Sacramento River Modeled Temperature – April 2023 90%-Exceedance Water Outlook Historical 25% Meteorology

This figure shows Sacramento River modeled temperature in degrees Fahrenheit at Shasta and Keswick Dams, above Clear Creek, Balls Ferry Bridge, and Bend Area from 4/10 to 9/10 in percent exceedances. It also shows the desired degree range between 53.5 and 56 degrees Fahrenheit.