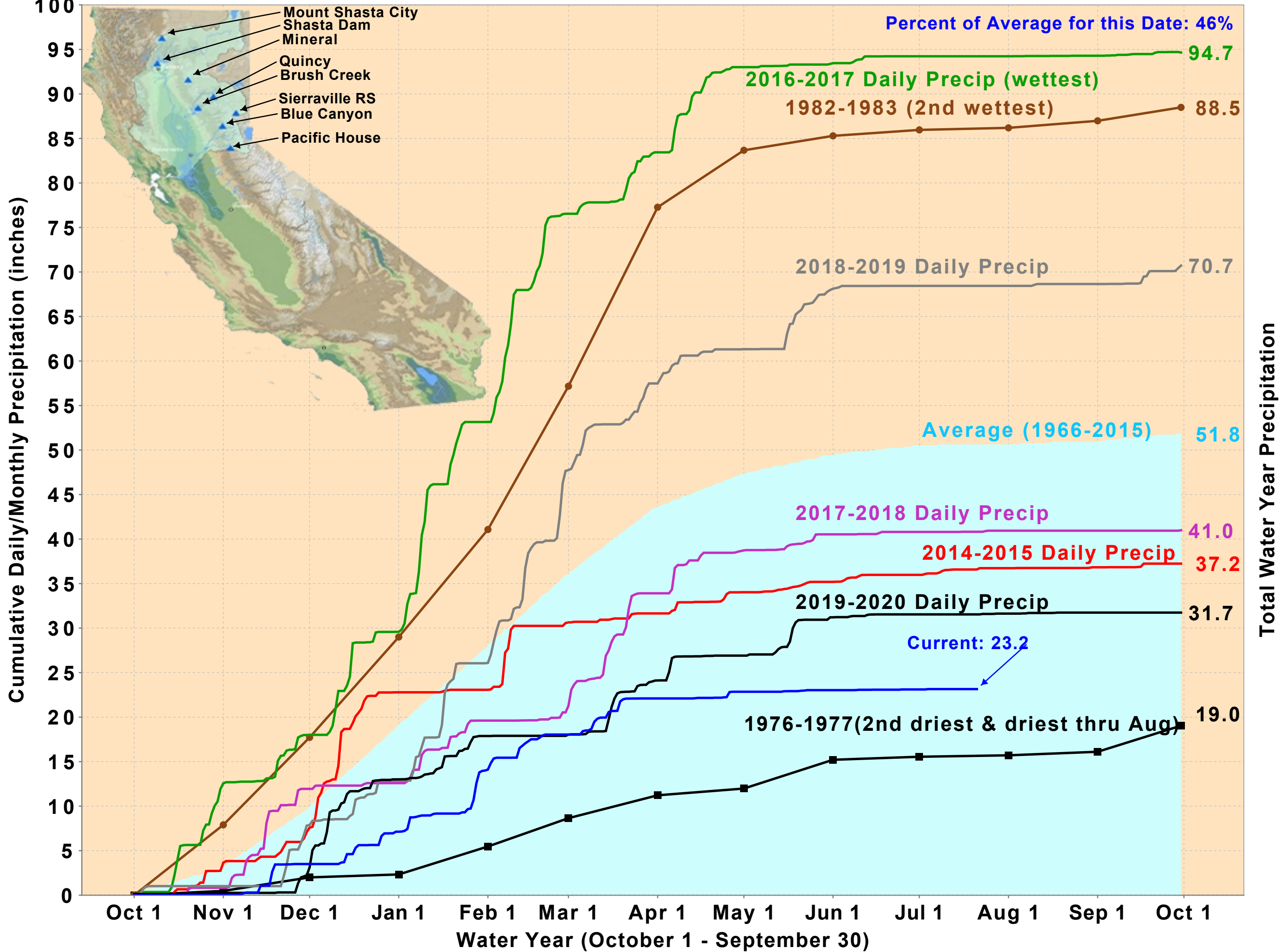
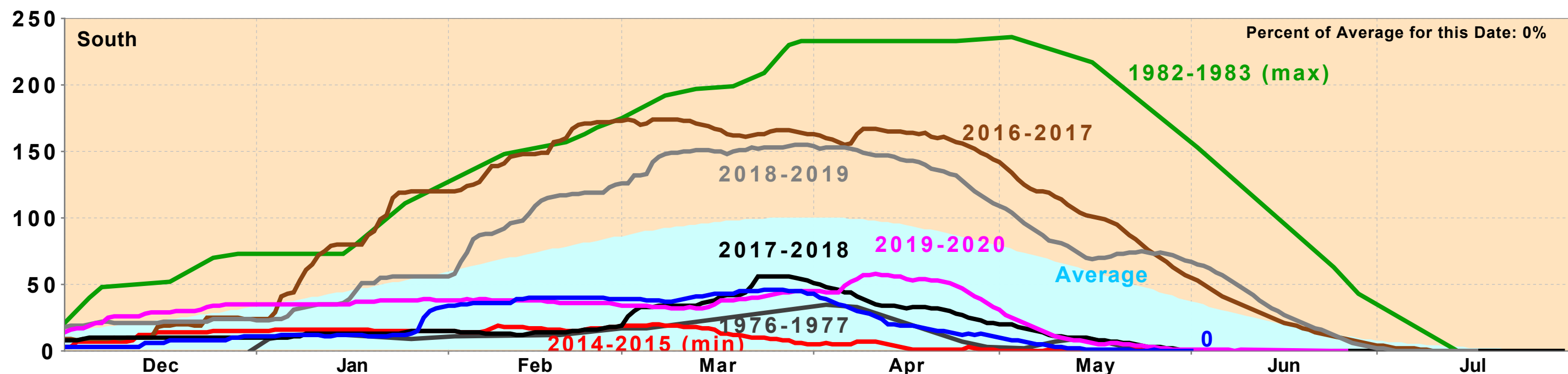
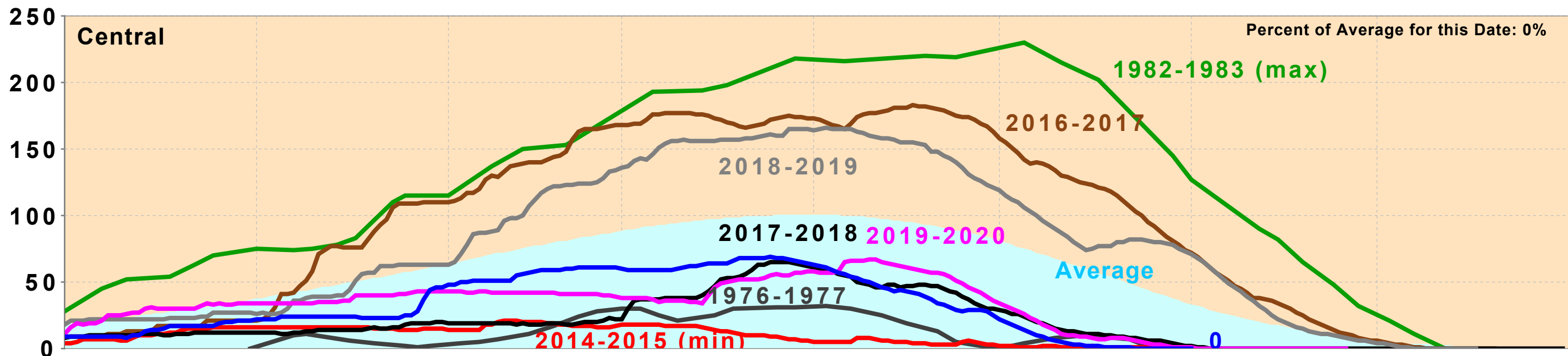
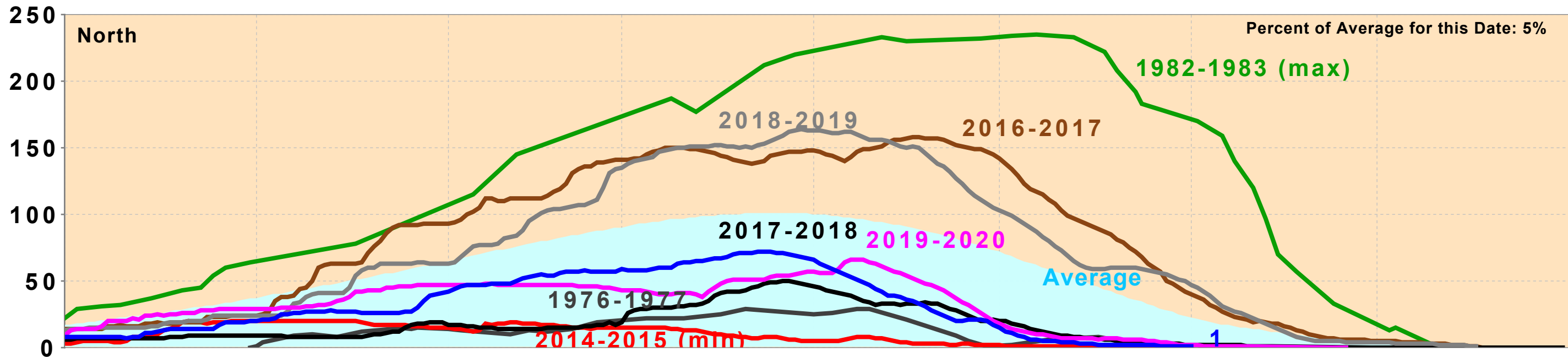


# Northern Sierra Precipitation: 8-Station Index, July 21, 2021



# California Snow Water Content, June 1, 2021, Percent of April 1 Average



Statewide Percent of April 1: 0%

Statewide Percent of Average for Date: 0%

UNITED STATES DEPARTMENT OF THE INTERIOR  
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

**DAILY CVP WATER SUPPLY REPORT**

JULY 20, 2021

RUN DATE: July 21, 2021

**RESERVOIR RELEASES IN CUBIC FEET/SECOND**

RESERVOIR	DAM	WY 2020	WY 2021	15 YR MEDIAN
TRINITY	LEWISTON	465	451	465
SACRAMENTO	KESWICK	12,475	9,251	12,409
FEATHER	OROVILLE (SWP)	3,300	3,000	4,500
AMERICAN	NIMBUS	3,979	993	3,850
STANISLAUS	GOODWIN	200	1,501	371
SAN JOAQUIN	FRIANT	426	275	350

**STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET**

RESERVOIR	CAPACITY	15 YR AVG	WY 2020	WY 2021	% OF 15 YR AVG
TRINITY	2,448	1,603	1,676	1,061	66
SHASTA	4,552	2,996	2,834	1,553	52
FOLSOM	977	622	602	257	41
NEW MELONES	2,420	1,420	1,667	1,103	78
FED. SAN LUIS	966	295	222	83	28
TOTAL NORTH CVP	11,363	6,935	7,001	4,057	58
MILLERTON	520	366	306	223	61
OROVILLE (SWP)	3,538	2,151	1,969	962	45

**ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET**

RESERVOIR	CURRENT WY 2021	WY 1977	WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	335	194	2,725	1,003	33
SHASTA	2,114	2,132	10,098	4,301	49
FOLSOM	728	299	6,115	2,195	33
NEW MELONES	317	----	2,563	858	37
MILLERTON	477	243	4,055	1,252	38

**ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES**

RESERVOIR	CURRENT WY 2021	WY 1977	WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	16.21	12.06	55.19	31.02 ( 59)	52	0.00
SACRAMENTO AT SHASTA DAM	23.52	17.42	112.58	60.43 ( 64)	39	0.00
AMERICAN AT BLUE CANYON	31.62	15.64	103.88	65.03 ( 46)	49	0.00
STANISLAUS AT NEW MELONES	16.80	----	45.33	26.99 ( 43)	62	0.02
SAN JOAQUIN AT HUNTINGTON LK	17.68	17.20	81.40	40.69 ( 46)	43	0.00

DATE	Mean Daily Water Temperatures (°F)														Mean Daily Release (CFS)			Mean Daily Air Temperatures (°F)					
	TCD <sup>1</sup>	SHD	SPP <sup>1</sup>	KWK	SAC <sup>2</sup>	CCR	BSF	JLF	BND	RDB	IGO	LWS	DGC <sup>3</sup>	NFH	Shasta Generation	Spring Creek P.P.	Keswick Total	RDD	BSF	RDB			
Jun	53.1	51.7	52.9	54.1	55.1	55.7	58.2	59.6	60.8	62.4	56.6	51.5	59.0	63.5	6271	1023	7693	82.4	78.2	78.1			
07/01	52.2	? 50.6	? 55.0	53.5	54.5	55.2	58.0	!	-	61.0	63.1	57.9	52.6	62.9	69.1	7022	1305	8536	86.0	81.0	79.5		
07/02	51.9	50.6	54.9	53.4	54.4	55.0	57.3	!	-	60.2	62.1	57.3	52.6	62.8	69.3	6563	1707	8448	86.5	82.7	81.0		
07/03	52.4	50.4	? 55.3	53.6	54.7	55.3	57.7	!	-	60.1	61.8	57.2	52.5	62.5	69.0	6962	1868	8452	87.5	83.4	82.8		
07/04	52.6	51.2	55.5	53.4	54.3	54.9	57.3	!	-	60.1	62.1	57.3	52.1	62.7	69.1	7238	2006	9204	87.5	82.3	81.5		
07/05	52.0	50.7	55.8	53.8	54.6	55.2	57.3	!	-	59.7	61.3	57.2	51.6	62.4	68.8	6749	1971	9210	87.5	82.8	81.6		
07/06	52.2	50.9	55.8	53.7	54.6	55.2	? 57.4	? 59.0	59.8	61.4	57.0	51.5	62.1	68.6	7429	2100	9192	85.0	81.2	80.1			
07/07	52.0	51.1	56.1	53.6	54.5	55.0	? 57.0	58.5	59.7	61.4	56.9	51.2	#	-	67.4	7229	2122	9438	86.0	83.4	82.1		
07/08	51.9	? 50.6	? 56.1	53.8	54.7	55.3	57.1	58.4	59.5	61.1	56.8	51.4	#	-	67.3	6983	2044	9335	87.0	82.4	83.1		
07/09	52.1	? 50.7	? 56.1	53.6	54.5	55.2	? 57.2	58.7	59.8	61.4	57.1	50.9	#	-	67.3	7454	1844	9209	91.0	85.3	87.6		
07/10	51.7	? 50.5	? 56.1	53.8	54.6	55.2	57.1	58.6	59.7	61.4	57.3	51.3	#	-	67.9	6606	2169	9302	95.0	89.0	90.4		
07/11	52.1	? 50.4	? 56.3	53.8	54.8	55.5	? 57.5	59.1	60.2	61.8	57.7	51.4	#	-	68.4	6843	1537	9269	94.5	88.6	88.8		
07/12	51.7	50.3	!	-	53.7	54.6	55.2	57.3	58.9	60.1	61.9	57.4	51.5	#	-	68.7	7159	1889	9198	89.0	83.3	82.9	
07/13	52.2	? 50.5	? 56.7	53.6	54.5	55.1	57.2	58.7	59.9	61.6	56.9	51.5	#	-	68.7	7204	1945	9242	86.5	80.8	79.5		
07/14	52.4	? 50.7	? 56.7	53.7	54.6	55.2	? 57.0	58.5	59.6	61.3	56.8	51.5	#	-	68.3	6767	1917	9263	83.5	78.4	77.3		
07/15	52.5	? 50.8	!	-	53.9	54.7	55.3	57.1	58.5	59.5	61.1	56.7	51.5	#	-	68.0	7131	1944	9309	82.0	76.5	77.3	
07/16	52.8	? 50.9	#	-	54.0	54.8	55.3	!	-	58.5	59.6	61.0	56.9	51.4	#	-	67.5	6757	2080	9319	82.0	-	76.9
07/17	52.5	? 50.7	#	-	54.5	55.2	55.7	? 57.3	58.6	59.5	60.9	58.1	51.5	#	-	67.3	6705	1885	9271	83.0	77.8	78.8	
07/18	51.7	50.7	#	-	53.8	54.8	55.4	57.5	58.9	60.0	61.4	58.3	51.6	#	-	67.5	7255	1684	9211	86.0	81.3	83.1	
07/19	52.4	? 50.6	#	-	53.9	54.7	55.3	57.1	58.6	59.7	61.2	58.1	51.3	#	-	66.6	6721	1975	9247	85.5	82.6	82.6	
07/20	52.2	? 50.9	#	-	53.9	54.8	55.3	57.1	58.6	59.7	61.3	58.4	51.2	#	-	66.2	6716	1924	9251	85.0	81.0	81.5	
07/21																							
07/22																							
07/23																							
07/24																							
07/25																							
07/26																							
07/27																							
07/28																							
07/29																							
07/30																							
07/31																							
Jul	52.2	50.7	55.9	53.8	54.6	55.2	57.3	58.7	59.9	61.5	57.4	51.6	62.6	68.1	6975	1896	9145	86.8	82.3	81.9			

Total CFS	139493	37916	182906
Total AF	276679	75205	362787

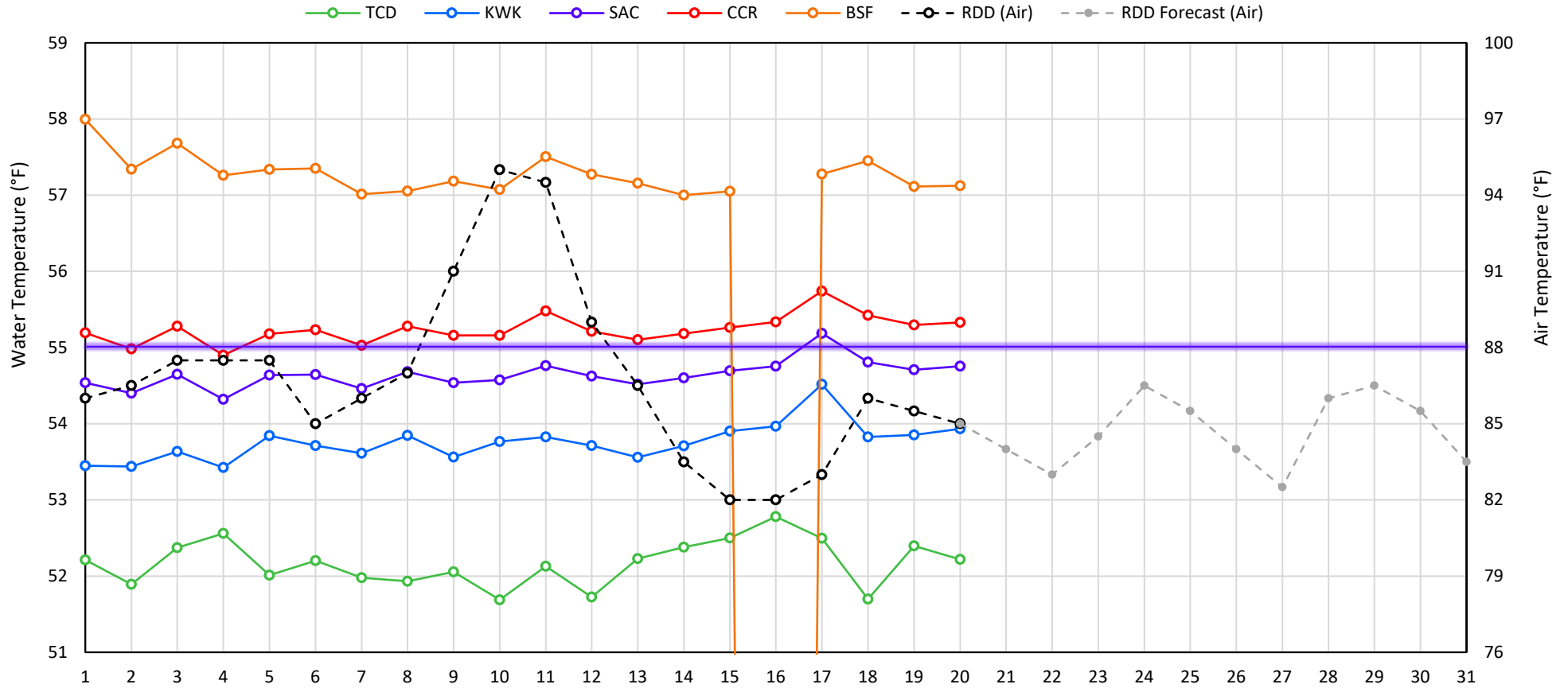
Legend

- ? = 1-9 hours of data missing (Average includes estimations)
- ! = 10 or more hours of data missing (Average not calculated)
- # = Station out of service
- ↑ = Record high air temperature
- ↓ = Record low air temperature
- ☐ = Monthly Averages

Notes

- <sup>1</sup> Temperatures are weighted averages based on individual penstock flow and temperature  
Highlighted cells in the TCD column indicate a TCD change was made on that day
- <sup>2</sup> Current Sacramento River control point (see page 4 for more details)
- <sup>3</sup> Data is currently being collected locally and periodically downloaded.  
Once downloaded and certified by USGS, missing data will be added.

## Mean Daily Temperatures



### Station Details

Code	Body of Water	Location <sup>1</sup>	CDEC Link
TCD	N/A	Shasta Power Plant	N/A
SHD	Sacramento River	0.3 miles downstream of Shasta Power Plant	<a href="#">Click Here</a>
SPP	N/A	Spring Creek Power Plant	N/A
KWK	Sacramento River	0.8 miles downstream of Keswick Dam	<a href="#">Click Here</a>
SAC	Sacramento River	4.8 miles downstream of Keswick Dam	<a href="#">Click Here</a>
CCR	Sacramento River	9.7 miles downstream of Keswick Dam	<a href="#">Click Here</a>
BSF	Sacramento River	25 miles downstream of Keswick Dam	<a href="#">Click Here</a>
JLF	Sacramento River	34 miles downstream of Keswick Dam	<a href="#">Click Here</a>
BND	Sacramento River	41 miles downstream of Keswick Dam	<a href="#">Click Here</a>
RDB	Sacramento River	58 miles downstream of Keswick Dam	<a href="#">Click Here</a>
IGO	Clear Creek	7.3 miles downstream of Whiskeytown Dam	<a href="#">Click Here</a>
LWS	Trinity River	1.1 miles downstream of Lewiston Dam	<a href="#">Click Here</a>
DGC	Trinity River	19 miles downstream of Lewiston Dam	<a href="#">Click Here</a>
NFH	Trinity River	38 miles downstream of Lewiston Dam	<a href="#">Click Here</a>

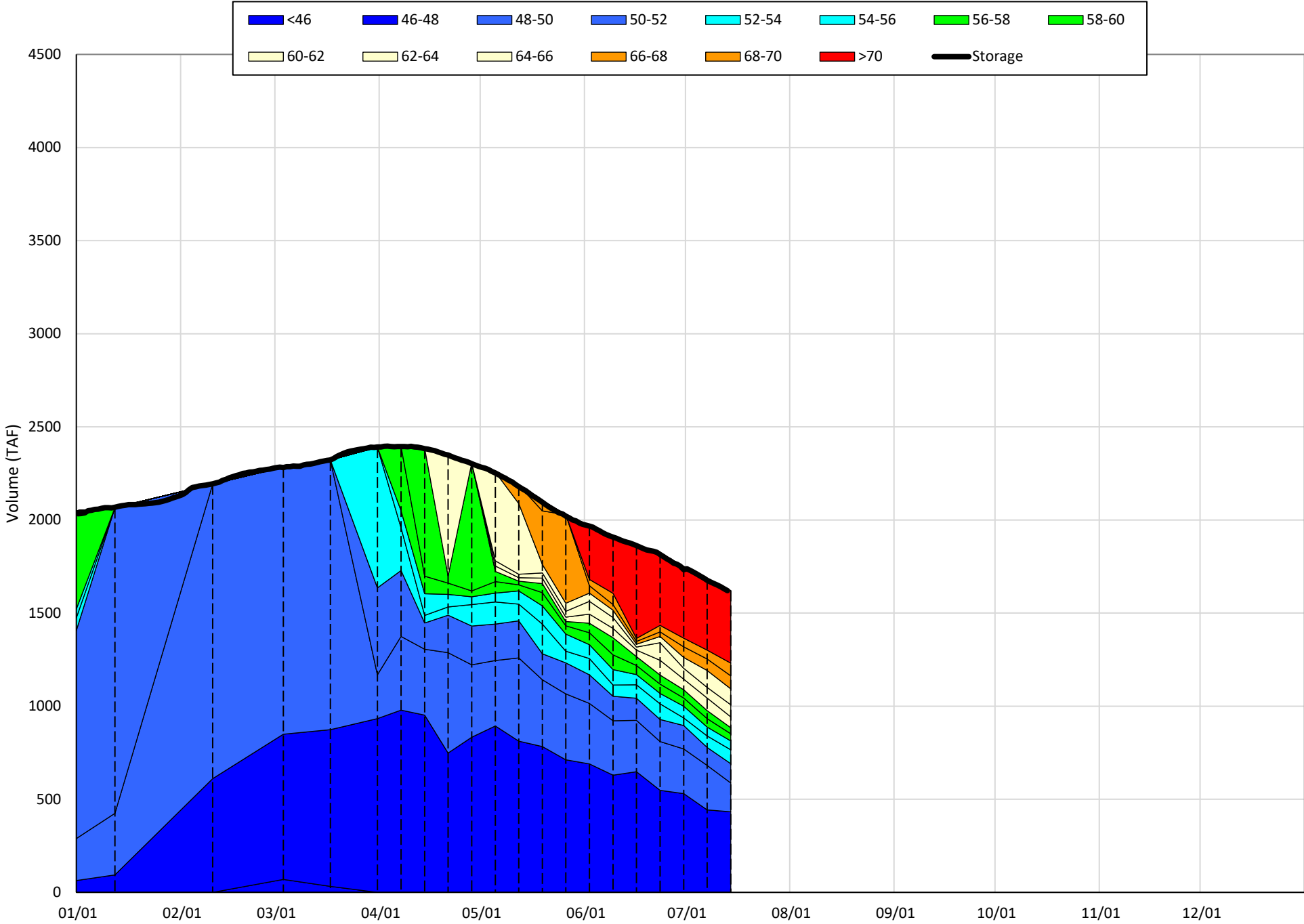
### Water Right Temperature Control Points

River	Point	Temp. (°F)	Begin Date	End Date
Sacramento	CCR	56	09/21/2020	04/18/2021
Sacramento	CCR	60	04/18/2021	05/17/2021
Sacramento	SAC	57	05/17/2021	06/15/2021
<b>Sacramento</b>	<b>SAC</b>	<b>55</b>	<b>06/15/2021</b>	<b>TBD</b>
Trinity	DGC	56	09/15/2021	10/01/2021
Trinity	NFH	56	10/01/2021	12/31/2021

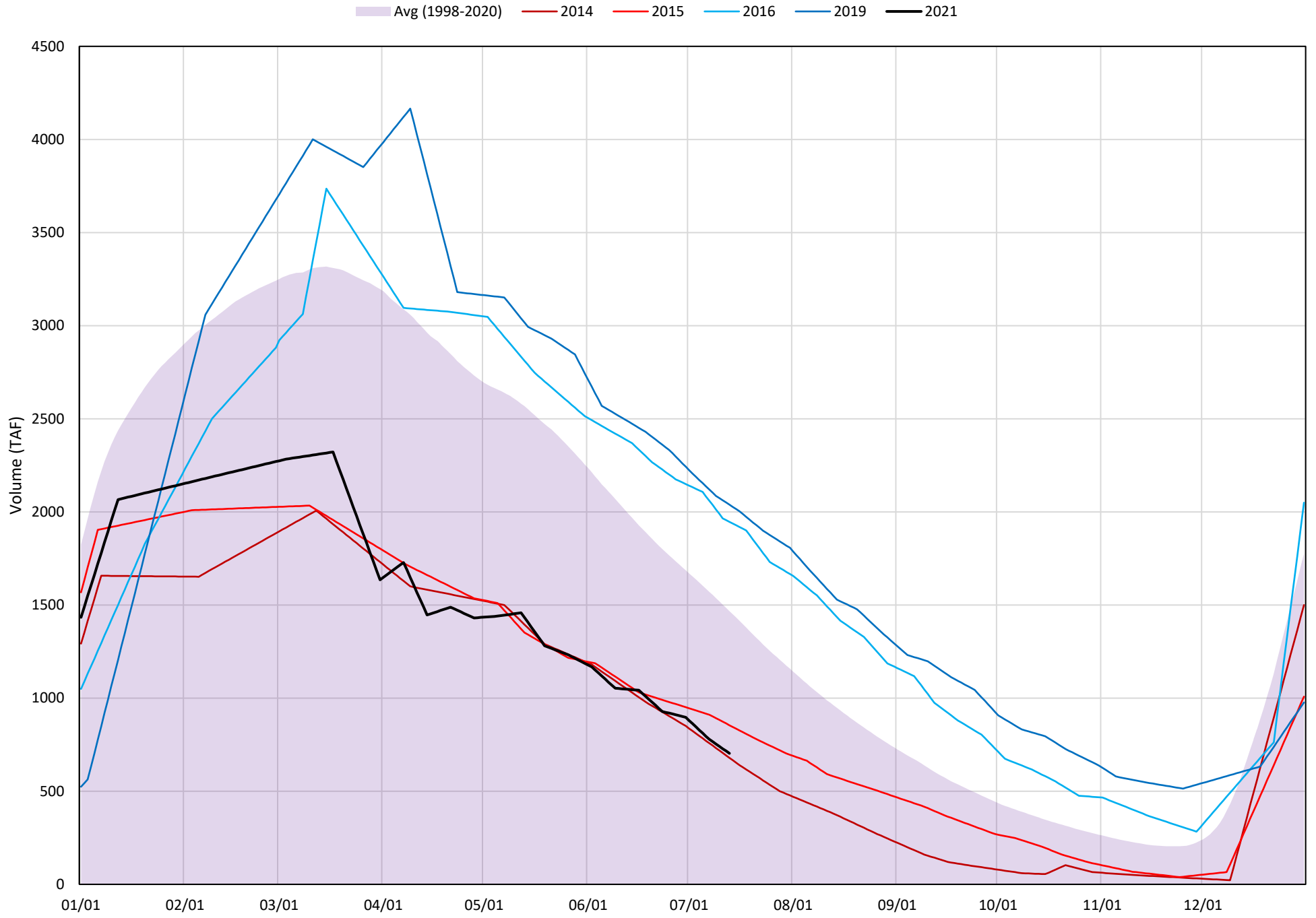
### Notes

<sup>1</sup> Distances are approximate

Shasta Lake Isothermobaths Plot - 2021

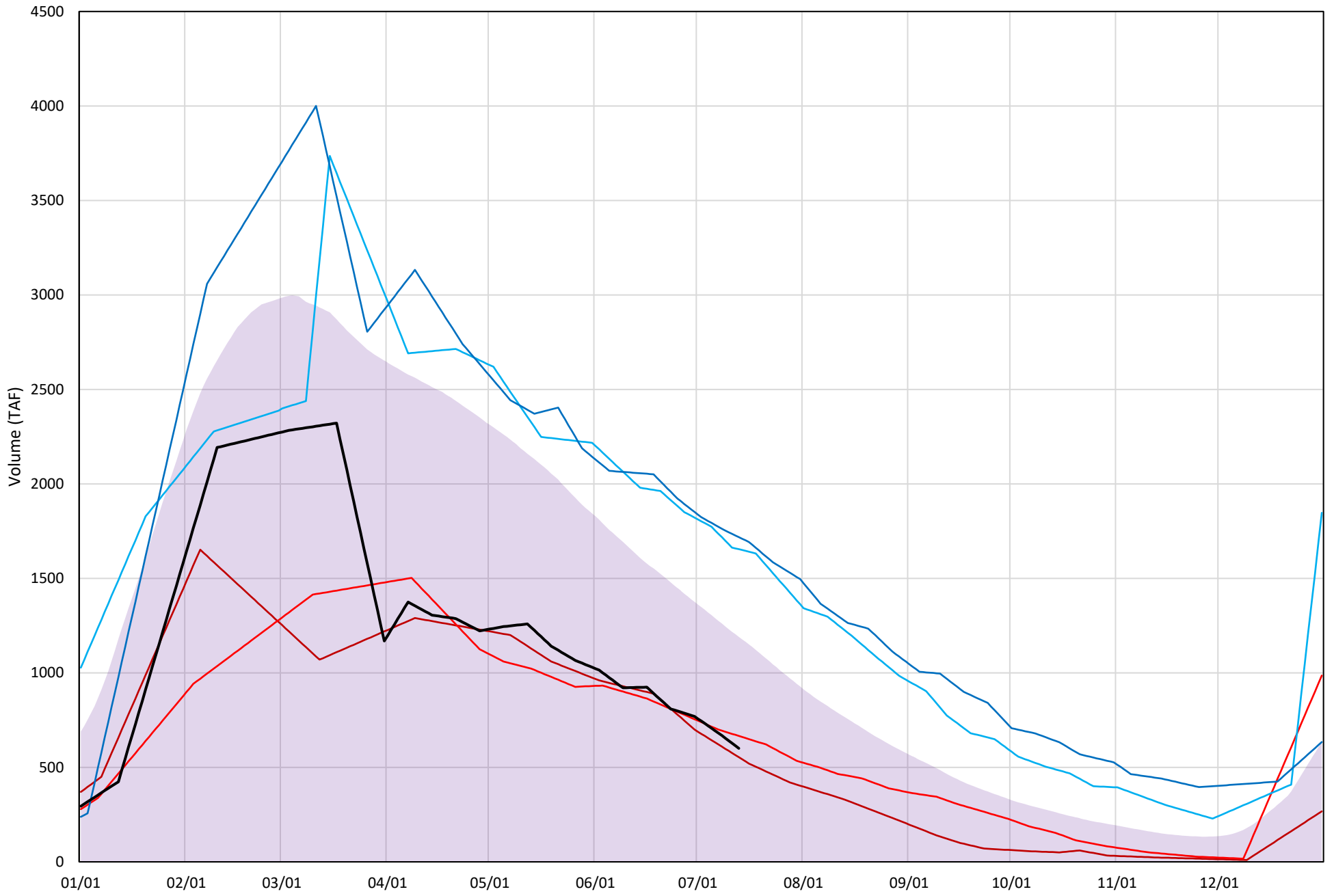


# Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$



# Shasta Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$

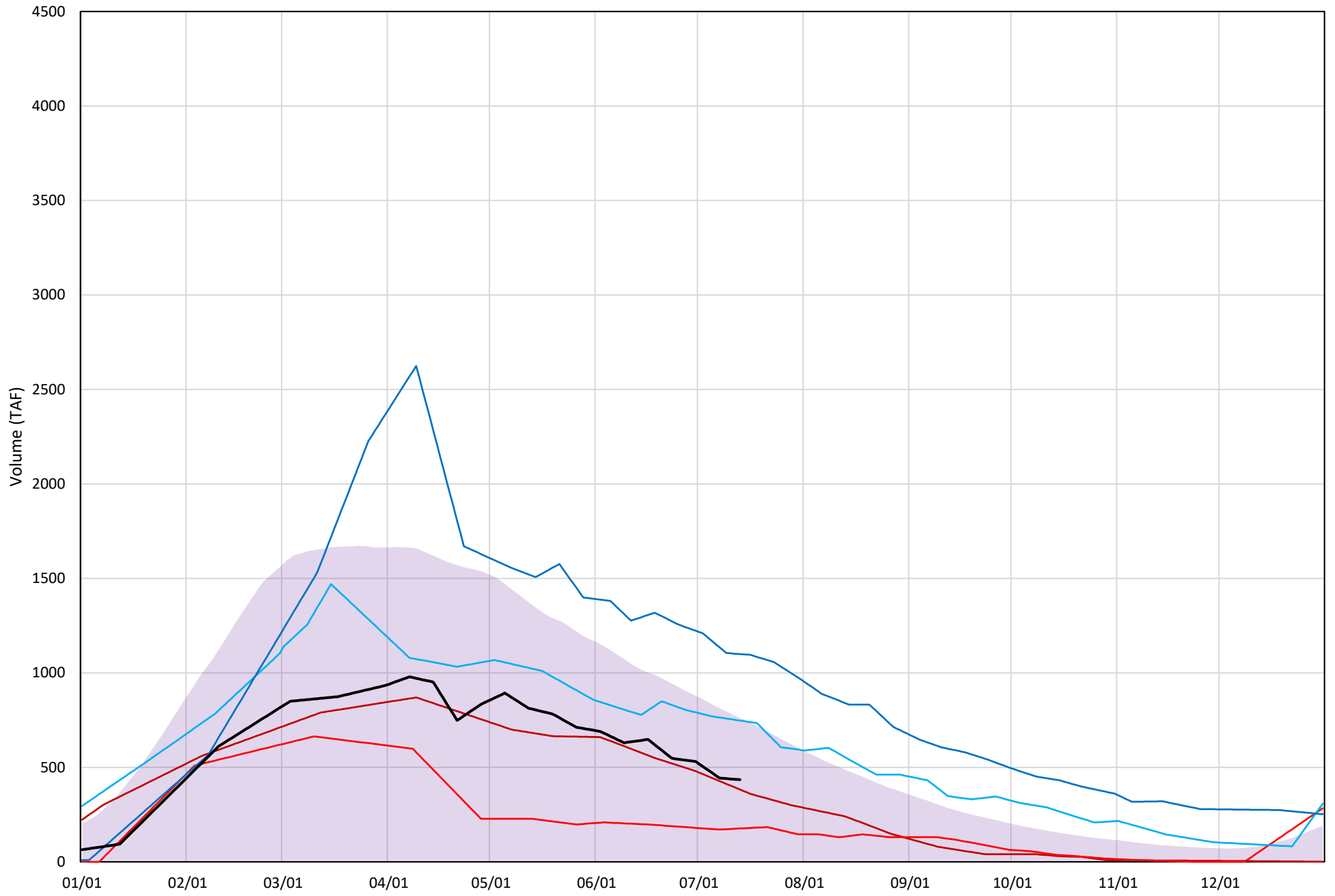
Avg (1998-2020) 2014 2015 2016 2019 2021





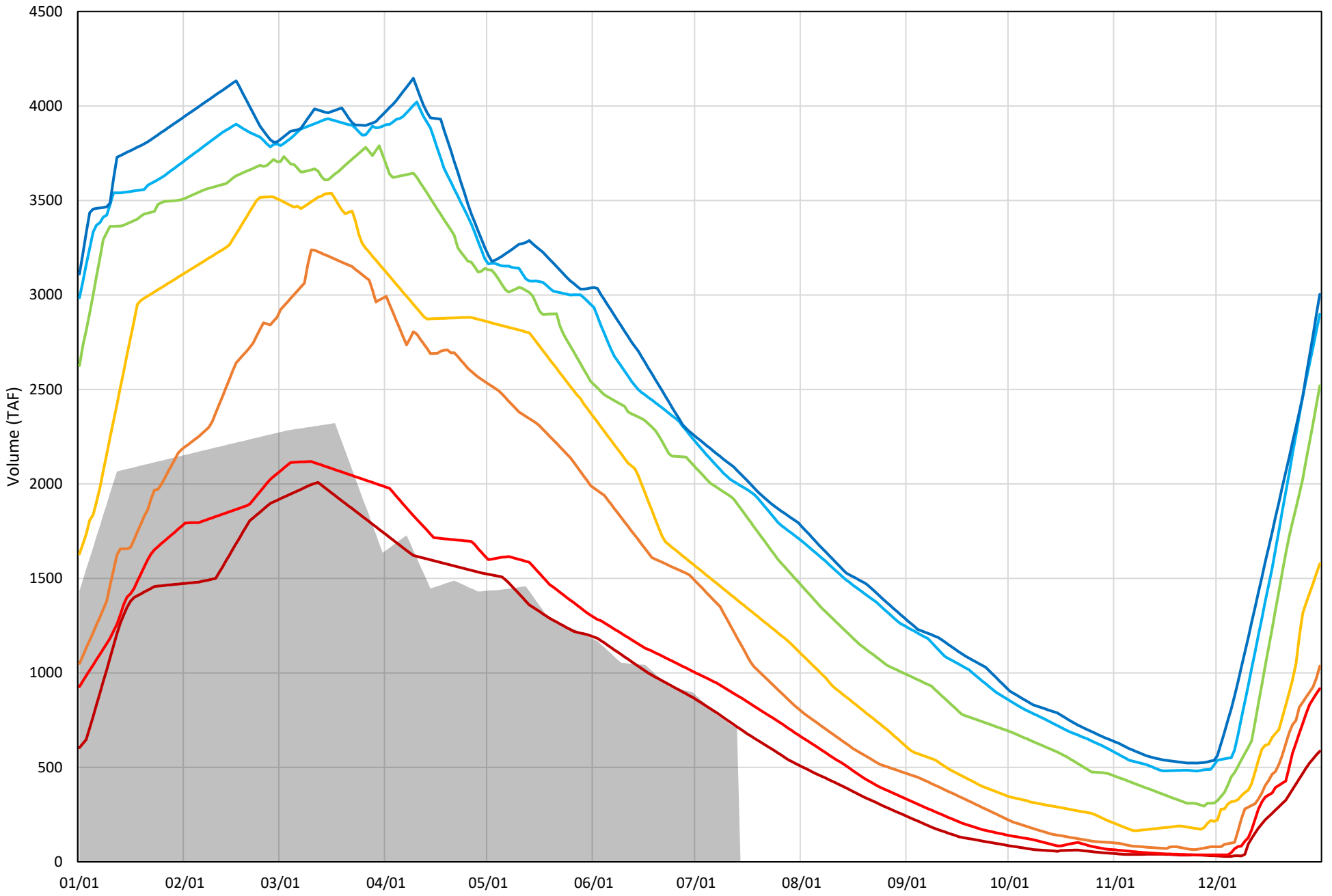
# Shasta Lake Cold Water Pool Volume $\leq 48^\circ\text{F}$

Avg (1998-2020) 2014 2015 2016 2019 2021



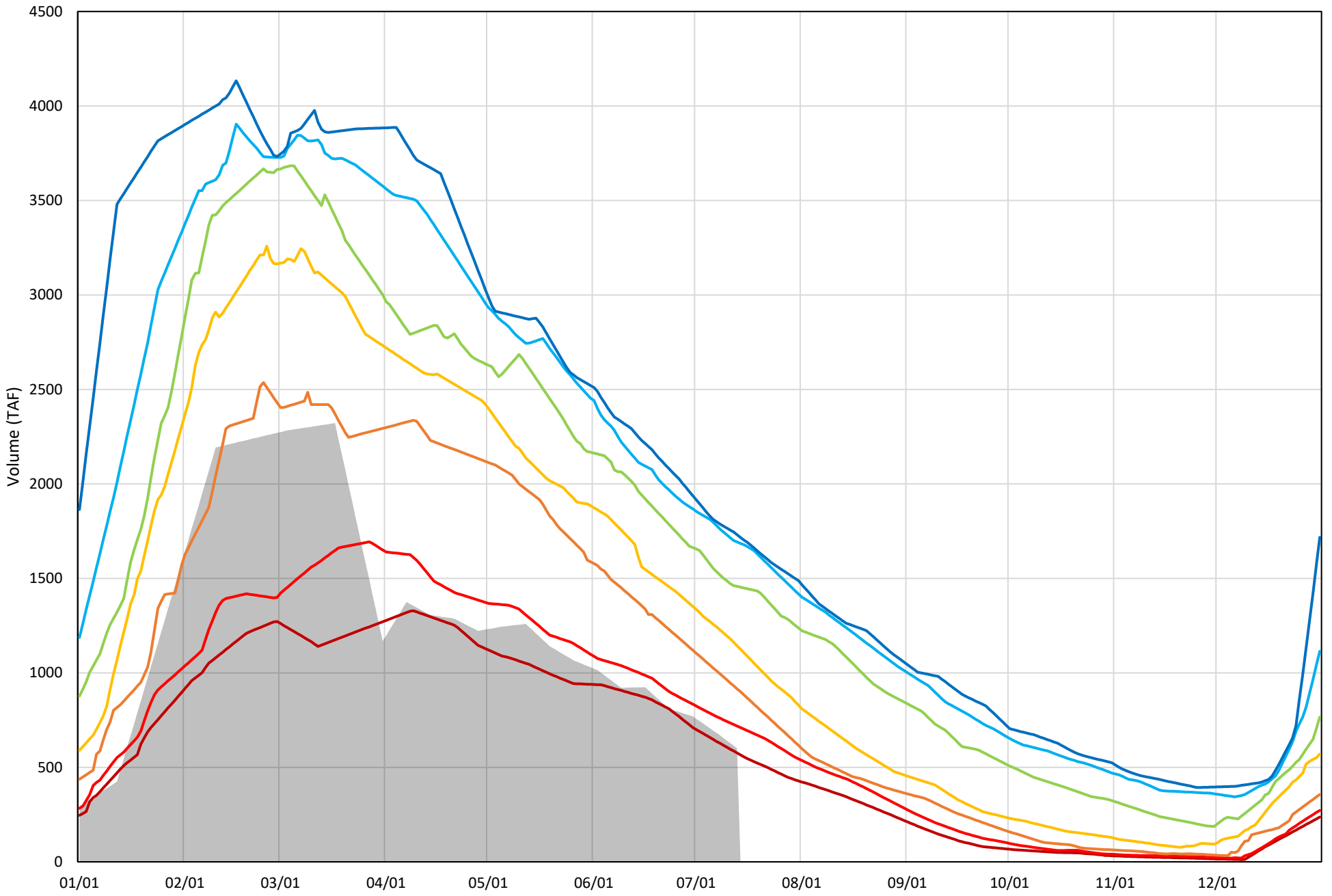
Shasta Lake Cold Water Pool Volume  $\leq 52^{\circ}\text{F}$  - Percent Exceedances (1998-2020)

2021 95 90 75 50 25 10 5



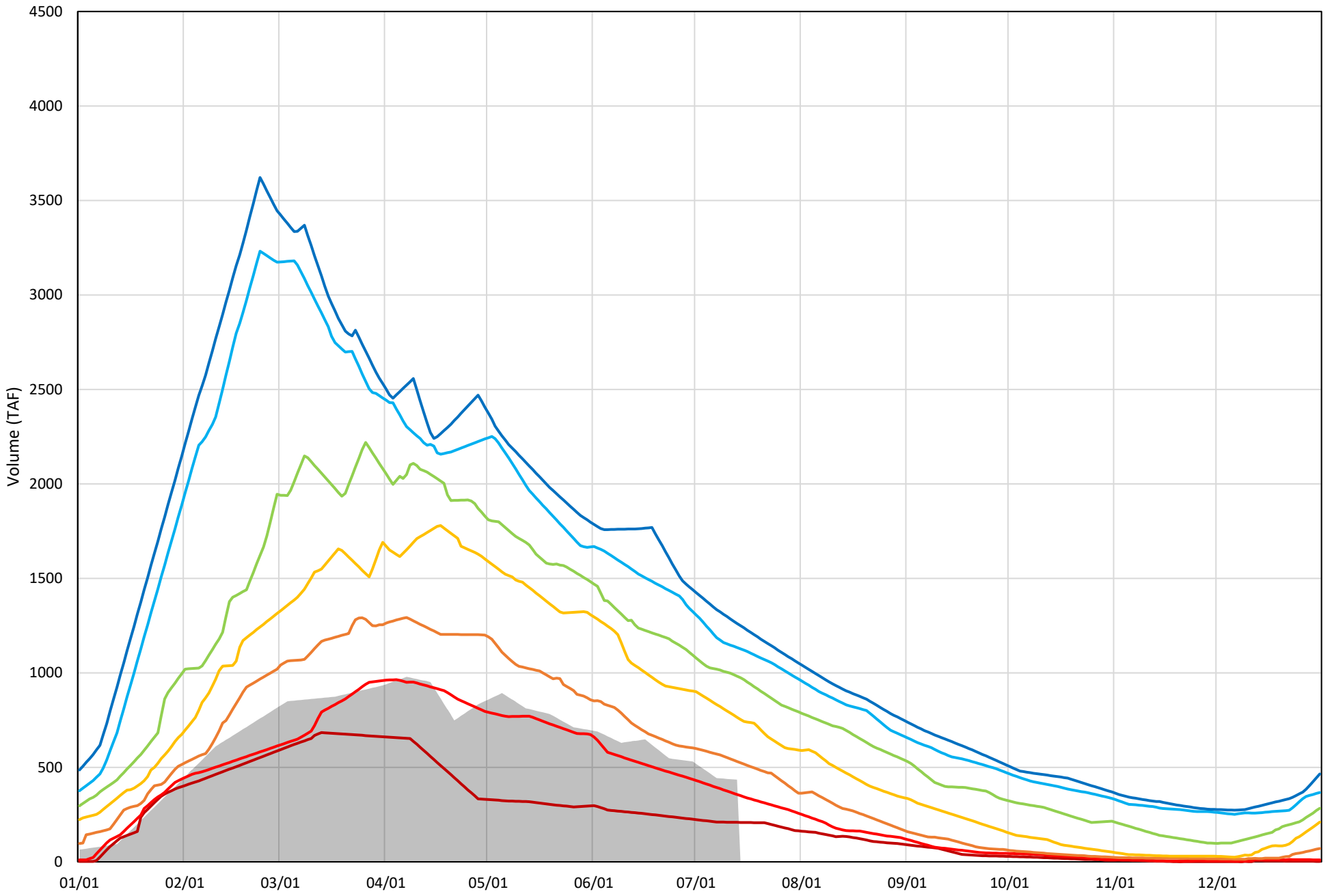
Shasta Lake Cold Water Pool Volume  $\leq 50^{\circ}\text{F}$  - Percent Exceedances (1998-2020)

2021 95 90 75 50 25 10 5



Shasta Lake Cold Water Pool Volume  $\leq 48^{\circ}\text{F}$  - Percent Exceedances (1998-2020)

2021 95 90 75 50 25 10 5



### Shasta Lake Cold Water Pool Comparison by Year (for Specified Date)

Jul-14 2021	Δ TAF				% Δ			
	≤52°	≤50°	≤48°	Abs. Avg.	≤52°	≤50°	≤48°	Abs. Avg.
1998	840	479	130	483	119	80	30	76
1999	938	843	722	834	133	140	166	147
2000	634	381	26	347	90	63	6	53
2001	558	542	468	523	79	90	108	92
2002	845	734	528	702	120	122	122	121
2003	683	197	-95	325	97	33	-22	51
2004	416	315	228	320	59	52	52	55
2005	483	275	17	259	69	46	4	39
2006	1039	802	480	774	148	133	111	131
2007	582	556	493	544	83	93	113	96
2008	216	216	260	231	31	36	60	42
2009	397	356	330	361	56	59	76	64
2010	1226	959	553	913	174	160	127	154
2011	1377	1133	853	1121	196	189	196	194
2012	1192	1044	608	948	170	174	140	161
2013	574	504	405	494	82	84	93	86
2014	-24	-47	-52	41	-3	-8	-12	8
2015	151	65	-258	158	22	11	-59	31
2016	1243	1053	313	870	177	175	72	141
2017	1202	857	548	869	171	143	126	147
2018	1005	715	204	641	143	119	47	103
2019	1335	1117	665	1039	190	186	153	176
2020	658	468	96	408	94	78	22	65
2021	0	0	0	0	0	0	0	0

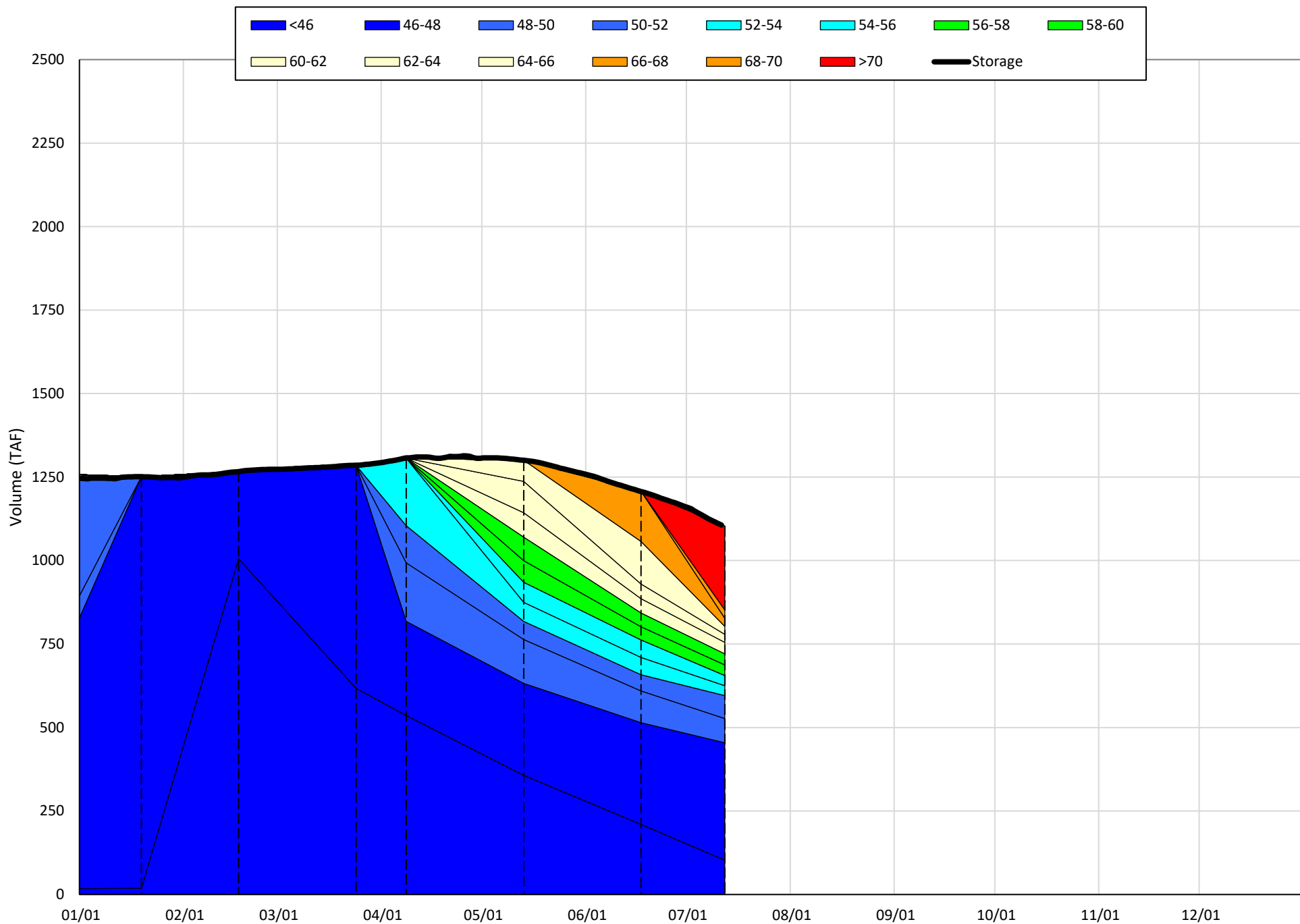
}

Historic - Current

}

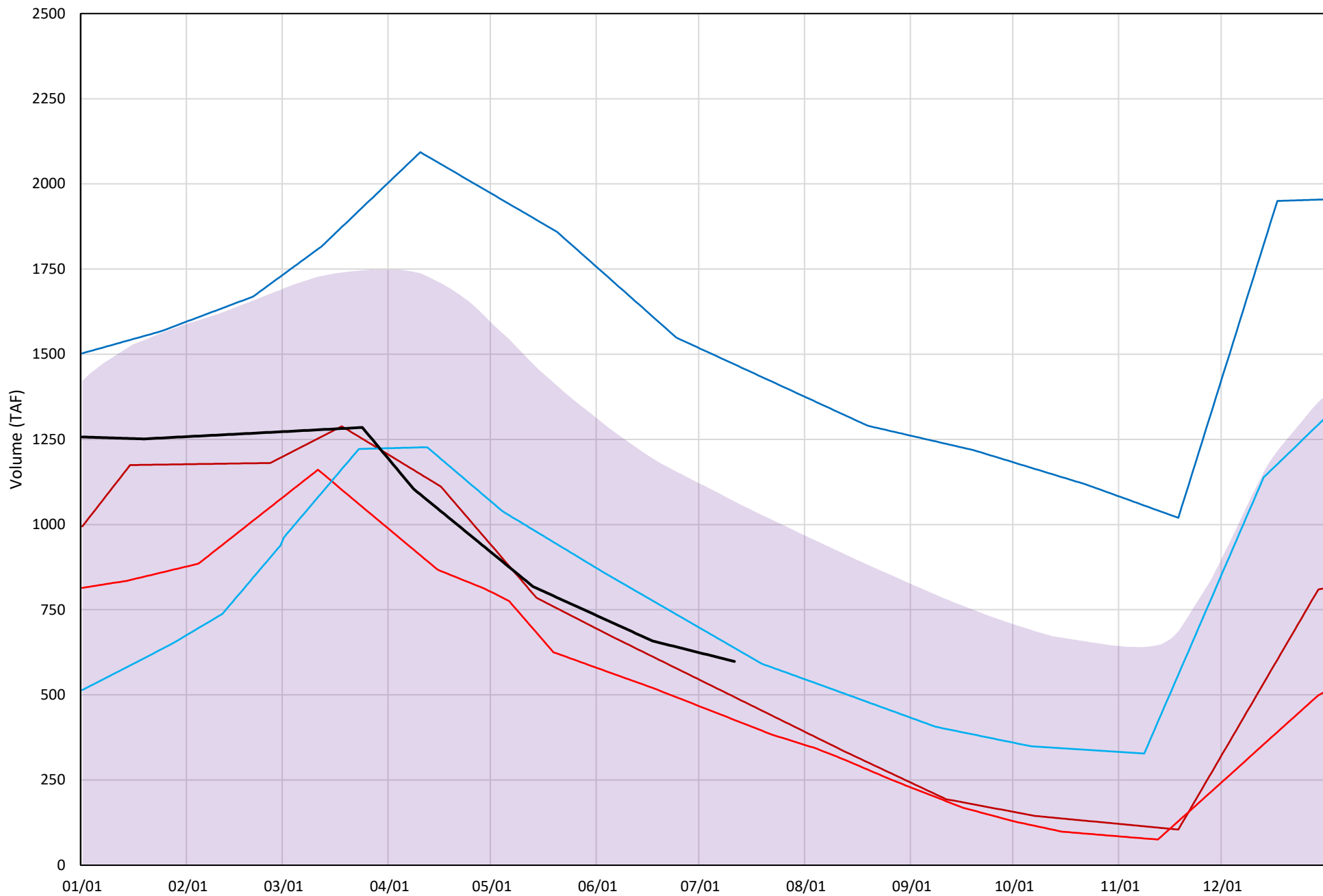
(Historic - Current) / Current

Trinity Lake Isothermobaths Plot - 2021



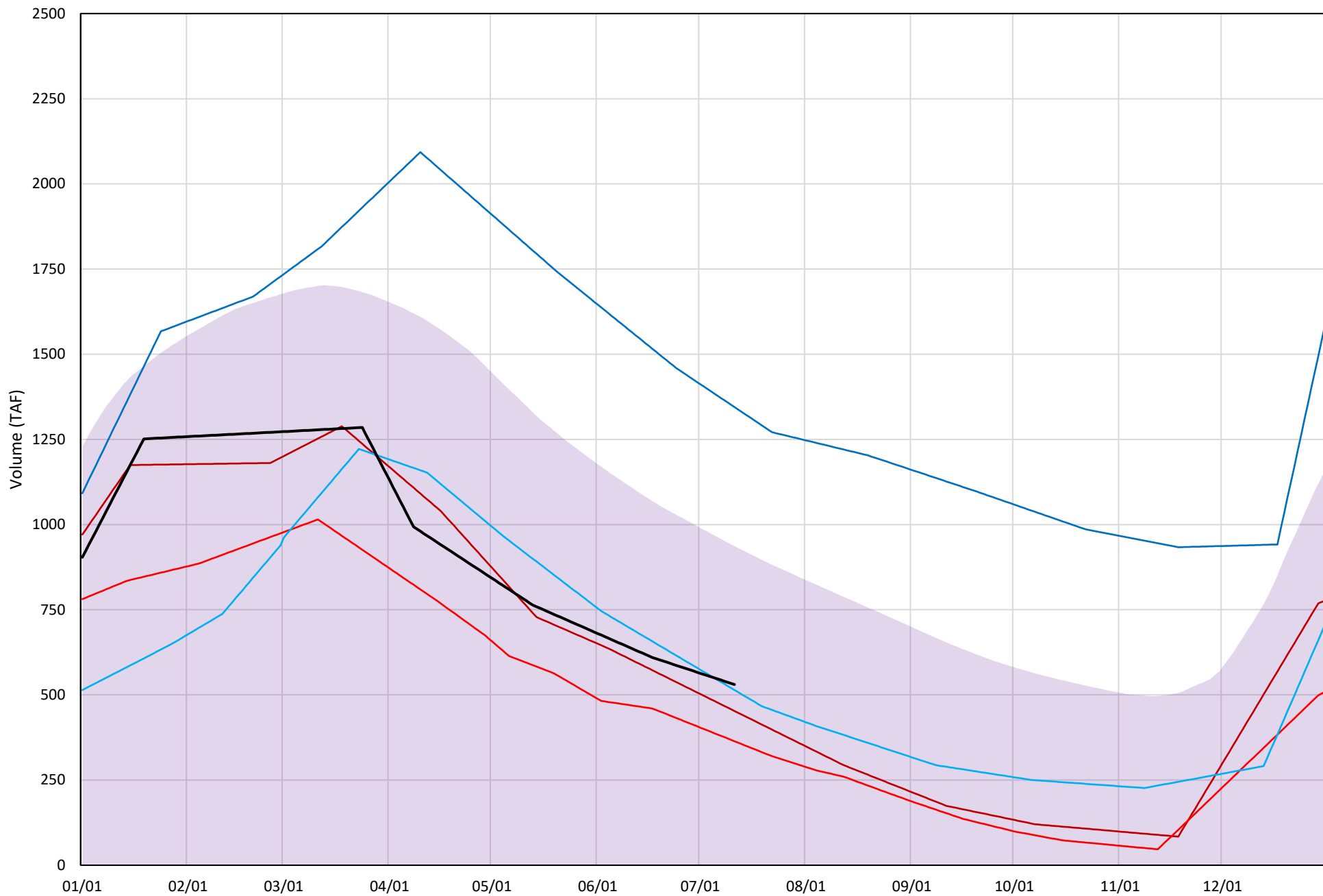
# Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$

Avg (2000-2020) 2014 2015 2016 2019 2021



# Trinity Lake Cold Water Pool Volume ≤50°F

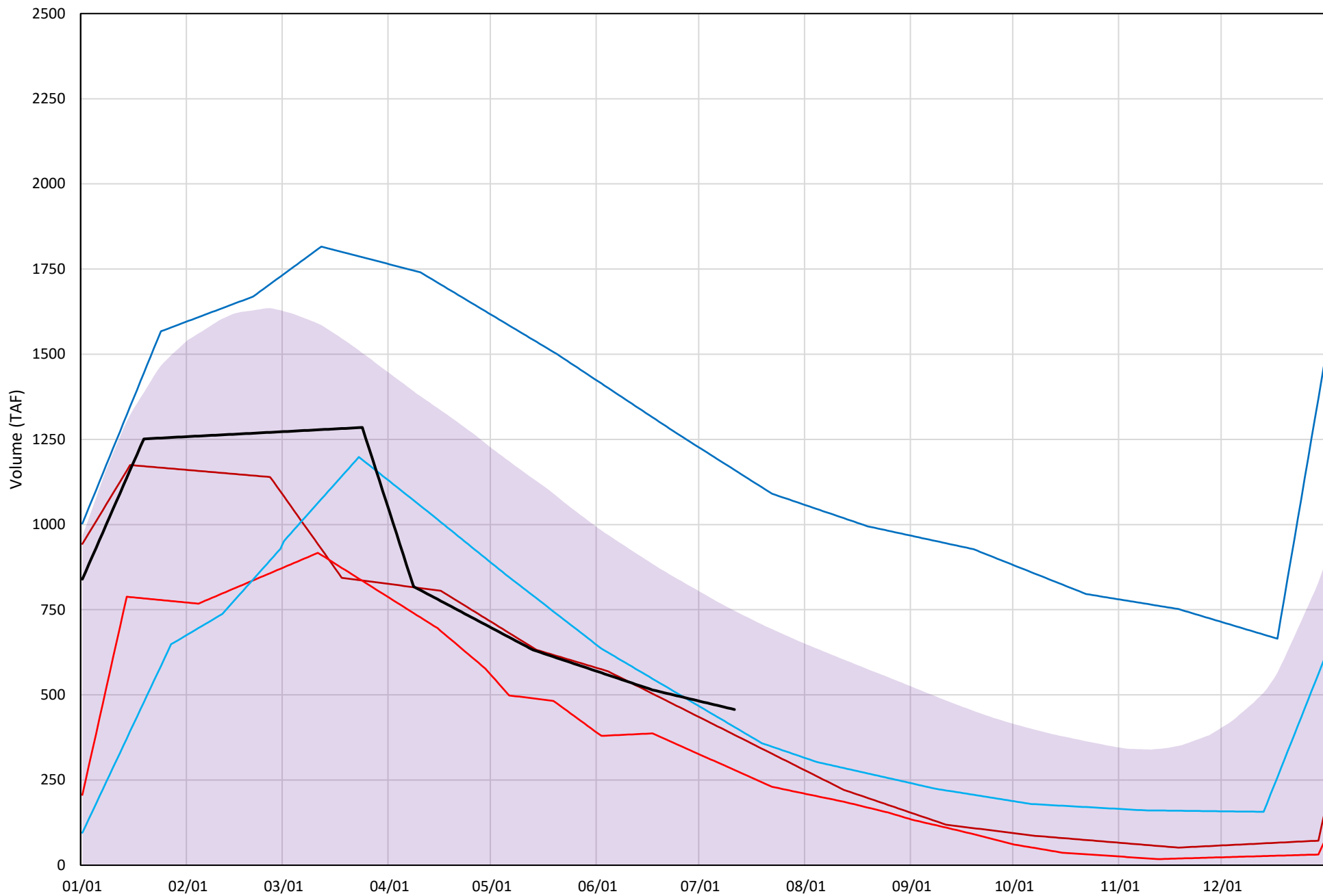
Avg (2000-2020) 2014 2015 2016 2019 2021



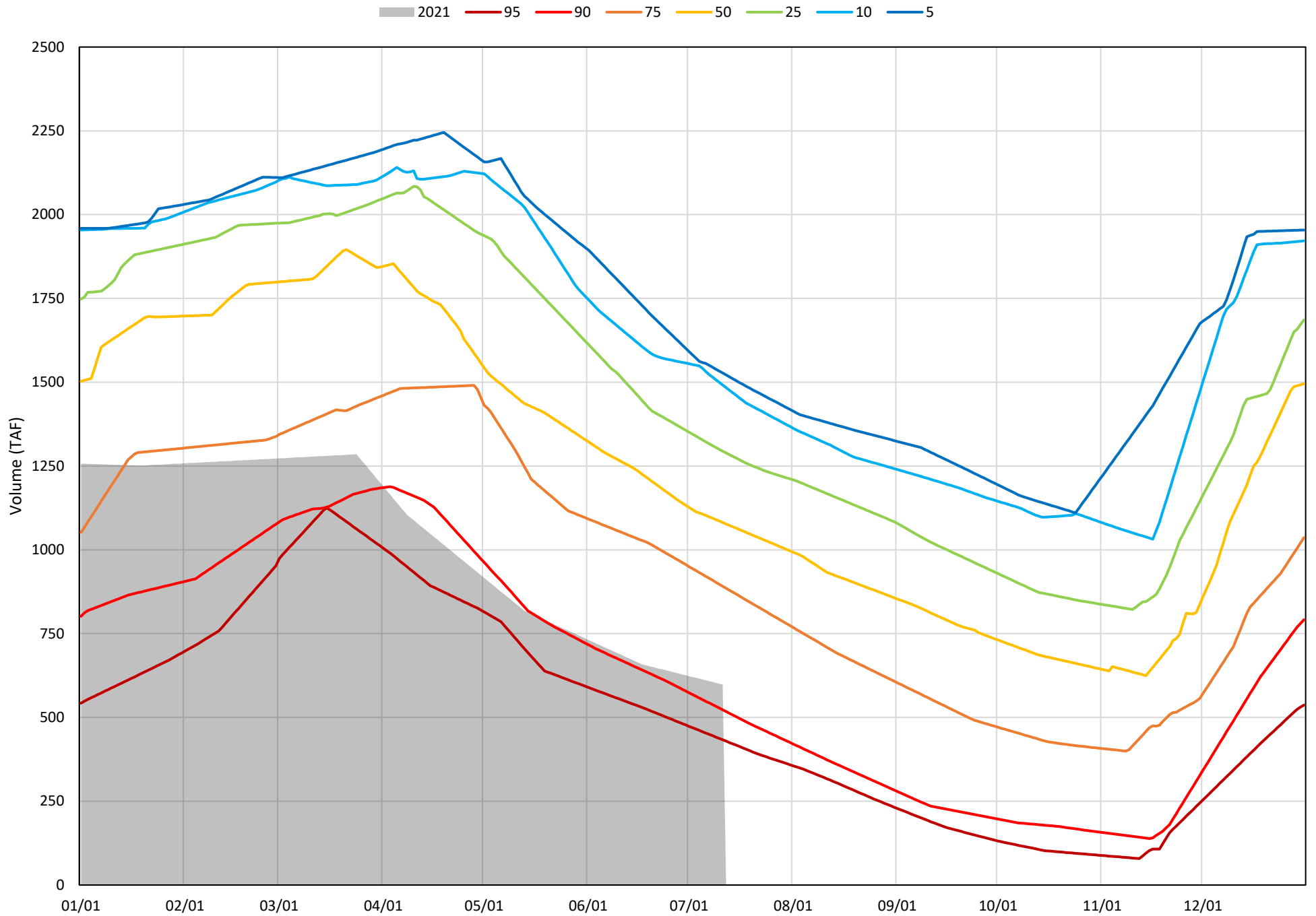


# Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

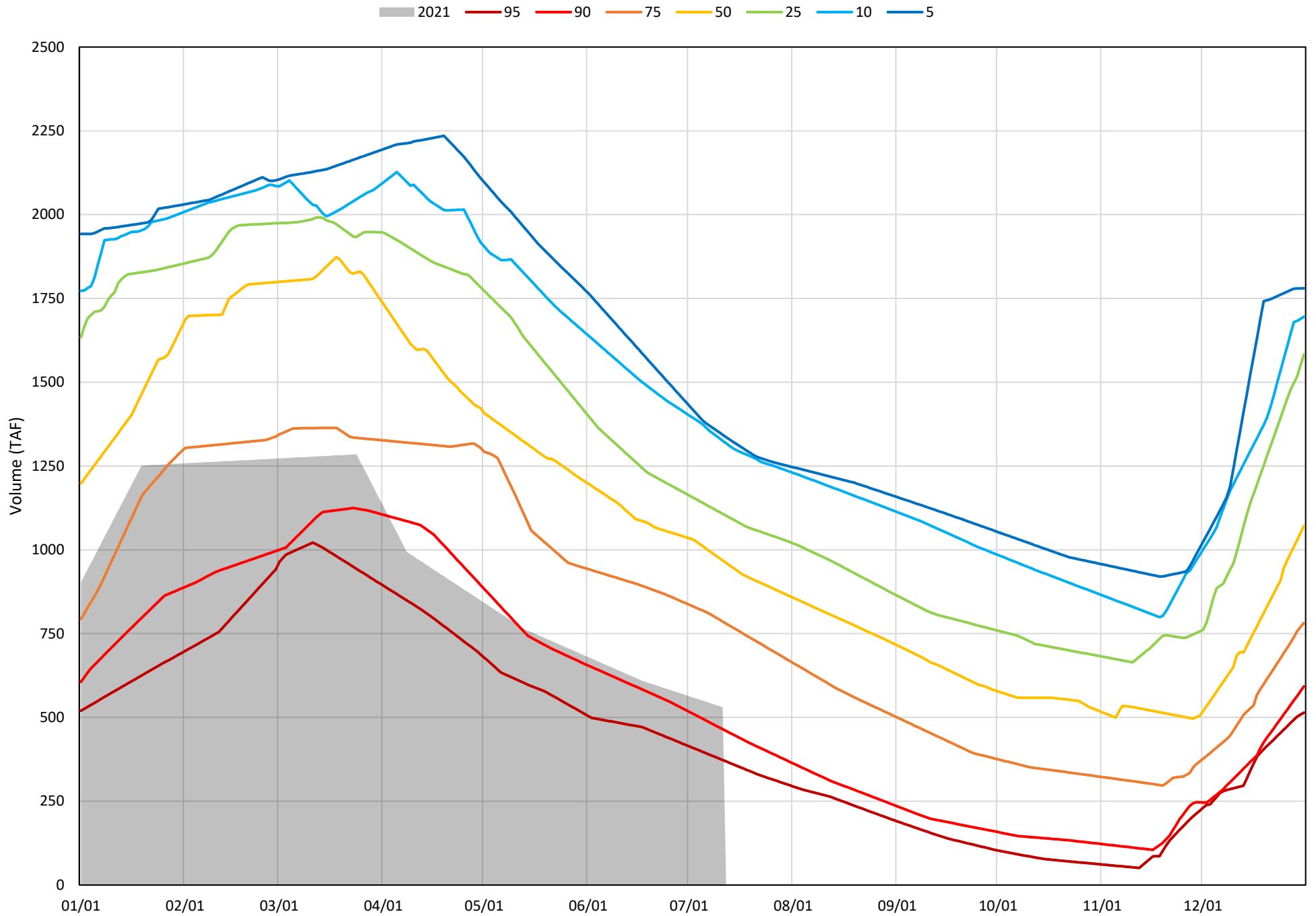
Avg (2000-2020) 2014 2015 2016 2019 2021



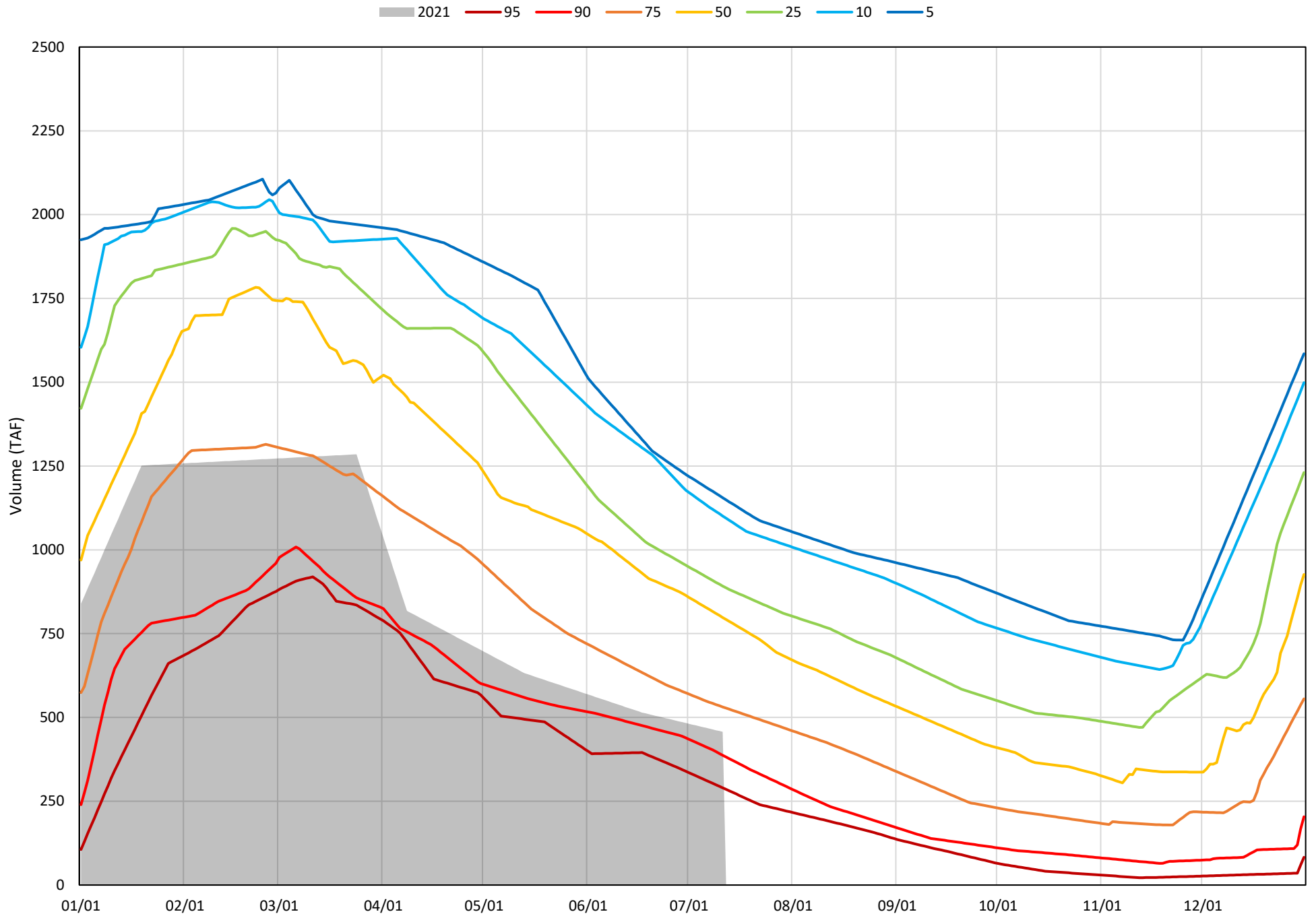
Trinity Lake Cold Water Pool Volume  $\leq 52^{\circ}\text{F}$  - Percent Exceedances (2000-2020)



Trinity Lake Cold Water Pool Volume  $\leq 50^{\circ}\text{F}$  - Percent Exceedances (2000-2020)



Trinity Lake Cold Water Pool Volume  $\leq 48^{\circ}\text{F}$  - Percent Exceedances (2000-2020)



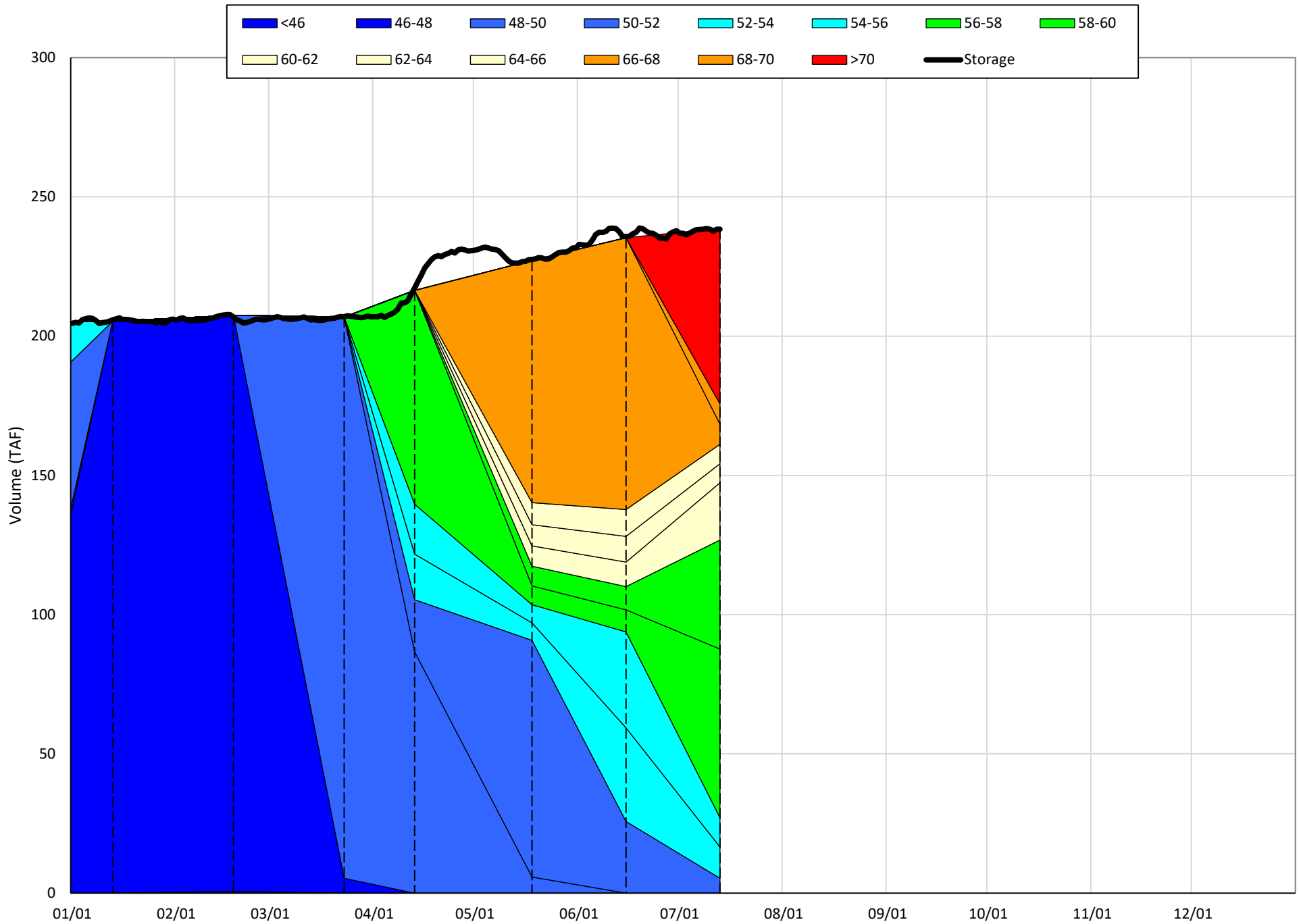
### Trinity Cold Water Pool Comparison by Year (for Specified Date)

Jul-12 2021	Δ TAF				% Δ			
	≤52°	≤50°	≤48°	Abs. Avg.	≤52°	≤50°	≤48°	Abs. Avg.
2000	626	504	361	497	105	95	79	93
2001	464	411	341	405	78	77	75	77
2002	441	423	361	408	74	80	79	77
2003	839	649	450	646	140	122	98	120
2004	529	438	294	420	88	83	64	78
2005	610	480	210	433	102	90	46	79
2006	899	798	602	766	150	151	132	144
2007	483	466	419	456	81	88	92	87
2008	232	178	39	150	39	34	9	27
2009	84	43	-39	55	14	8	-8	10
2010	447	344	110	300	75	65	24	55
2011	933	781	563	759	156	147	123	142
2012	766	756	654	725	128	143	143	138
2013	354	333	241	310	59	63	53	58
2014	-104	-78	-74	86	-17	-15	-16	16
2015	-172	-166	-178	172	-29	-31	-39	33
2016	40	-16	-51	36	7	-3	-11	7
2017	625	497	374	499	104	94	82	93
2018	504	477	419	467	84	90	92	89
2019	872	814	703	797	146	154	154	151
2020	395	400	292	362	66	75	64	68
2021	0	0	0	0	0	0	0	0

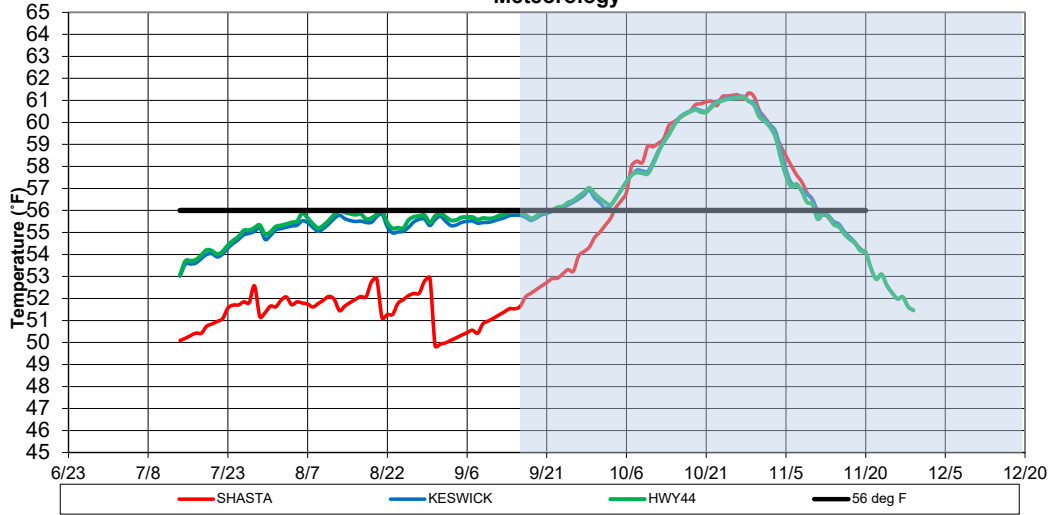
Historic - Current

(Historic - Current) / Current

# Whiskeytown Lake Isothermobaths Plot - 2021



**Sacramento River Modeled Temperature  
2021 June 90%-Exceedance Water Outlook - L3MTO 25%  
Meteorology**



	Shasta deg F	Keswick deg F	Hwy44 deg F	Igo deg F	Trinity deg F	Lewiston deg F
Apr						
May						
Jun						
Jul	51.1	54.3	54.4	54.4	46.7	49.3
Aug	51.9	55.4	55.6	57.3	47.6	49.8
Sep	51.9	55.8	56.0	57.1	50.6	51.9
Oct	59.4	59.3	59.3	56.6	53.5	54.9
Nov	55.4	55.3	55.2	53.8	53.5	53.1

Run date: 7/21/21 S14D

**EOM Sept storage: 1.1 MAF**

Trinity profile date: 7/12/21

Whiskeytown profile date: 7/13/21

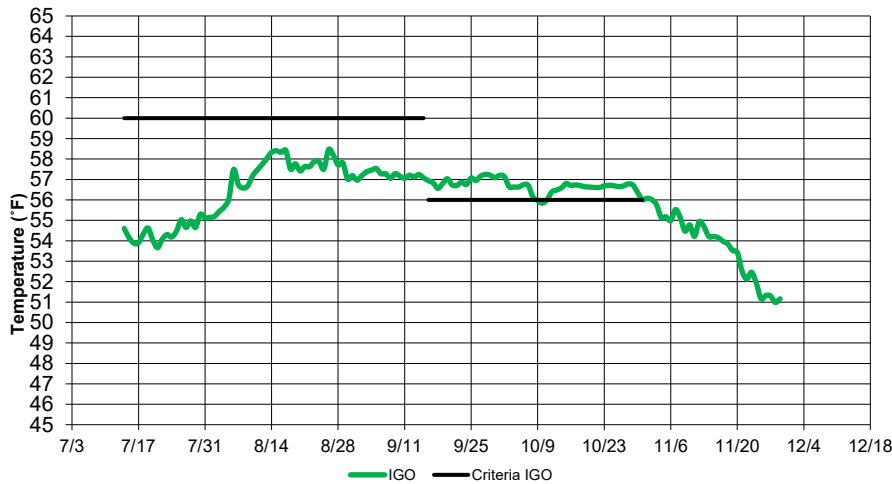
Shasta profile date: 7/14/21

Projected Side gates: First Jul 30 Full Sep 1

Shaded area denotes period of model limitations - see Fall Temperature Index

**End of September Cold-Water-Pool less than 56 deg F: 145 TAF**

**Clear Creek - Igo Modeled Temperature  
2021 June 90% Exceedance Outlook - 25% L3MTO**



**Trinity - Lewiston Modeled Temperature  
2021 June 90%-Exceedance Water Outlook- 25% L3MTO**

