

# Northern CVP Water Temperature Report

## September - 2020

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— BUREAU OF —  
RECLAMATION

All Data in this Report is Preliminary and Subject to Change

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	CCR <sup>2</sup>	BSF	JLF	BND	RDB	IGO <sup>3</sup>	LWS	DGC	NFH	Shasta Generation	Spring Creek P.P.	Keswick Total	RDD	BSF	RDB	
Aug	50.9	50.0	56.7	52.4	53.0	53.6	55.2	56.5	57.2	58.2	59.0	51.0	59.0	64.7	7694	1530	9735	84.5	78.4	78.9	
09/01	50.8 ?	49.8	56.4	52.8	53.6	54.5	56.4	57.7	58.6	59.7	58.9	50.7	58.1	63.4	5501	1508	7538	91.0	87.0	84.7	
09/02	51.3 ?	49.9	56.4	52.3	53.3	53.8	56.0	57.7	58.7	60.2	58.6	50.9	58.0	63.4	5894	1235	7546	82.0	77.2	75.3	
09/03	51.0	50.0	56.4	52.6	53.3	53.9	55.7	57.2	58.0	59.4	58.7	50.9	57.9	63.2	5576	1532	7524	82.5	76.4	75.4	
09/04	50.9	49.7	56.3	53.1	53.6	54.1	55.8	57.2	58.1	59.3	58.2	50.8	56.6	62.5	5975	1457	7516	82.0	76.3	78.2	
09/05	50.7	49.7 ?	56.3	52.3	53.1	53.5	55.1	56.6	57.6	59.0	57.9	50.7	56.3	61.5	6530	1072	7537	84.0	75.3	82.2	
09/06	50.8	49.7	56.3	52.0	52.7	53.1	54.8	56.1	56.9	58.3	58.0	50.4	56.4	60.9	5797	1279	7526	↑	88.5	78.8	84.9
09/07	? 51.0	49.9 ?	56.3	52.2	53.0	53.5	54.9	56.0	56.6	57.9	58.1	50.3	55.9	60.6	5798	1222	7526	↑	91.5	80.1	84.3
09/08	? 51.7	50.1	56.3	52.7	53.5	54.1	55.6	56.8	57.6	58.1	58.2	50.4	55.6	60.2	5639	1002	7087		86.5	83.4	84.3
09/09	51.2	49.8	56.3	52.1	52.5	52.7	53.8	55.0	55.9	57.1	56.1	50.4	53.3	57.6	5239	1391	7013	72.0	61.5	67.5	
09/10	51.1	49.9	56.5	51.8	52.5	52.8	53.5	54.1	54.4	54.6	56.5	50.4	51.8	54.9	5130	808	7039	70.5	63.0	65.6	
09/11	51.0	50.0	56.4	51.7	52.2	52.4	53.4	54.4	55.1	55.6	56.9	49.4	53.7	56.3	5010	1443	7055	73.0	65.1	68.0	
09/12	51.3	50.2	56.3	52.2	52.7	53.2	54.0	54.8	55.4	55.9	57.1	49.4	53.0	56.4	4894	1663	7058	75.0	67.4	69.6	
09/13	51.4	50.1	56.2	52.4	53.0	53.4	54.4	55.4	56.1	56.7	57.2	49.3	51.2	53.7	5320	1726	7073	75.0	67.8	70.4	
09/14	51.5	50.2	56.1	52.4	53.0	53.4	54.7	55.8	56.5	57.2	57.2	49.0	51.0	53.0	5606	1231	7049	75.0	68.0	69.6	
09/15	51.5	50.7	56.0	52.4	53.0	53.5	54.6	55.7	56.5	57.4	57.3	48.9	50.6	53.0	5699	1844	7039	75.0	68.3	71.5	
09/16	51.6	50.5	55.9	52.6	53.1	53.5	54.7	55.8	56.6	57.4	56.4	48.9	51.0	53.2	5067	1779	6998	74.0	67.3	70.0	
09/17	51.7	50.3	55.8	52.7	53.4	53.8	55.0	56.1	56.8	57.5	56.4	48.8	51.2	53.5	4719	1931	7016	73.5	69.3	71.5	
09/18	51.8	50.5	55.5	52.9	53.5	53.9	55.5	56.8	57.7	58.5	56.2	48.7	50.8	54.0	4532	1866	6801	74.5	71.9	71.0	
09/19	51.9	50.7	55.4	52.9	53.6	54.1	55.4	56.5	57.4	58.5	56.7	48.8	51.4	53.8	4856	1833	6906	74.0	68.2	71.2	
09/20	51.8	50.5	55.3	52.9	53.6	54.1	55.5	56.6	57.4	58.4	56.8	48.6	53.1	56.4	4293	1728	6841	80.5	69.8	72.1	
09/21	52.4	51.2	55.0	52.9	53.5	53.9	55.2	56.4	57.2	58.1	56.1	48.8	52.8	56.7	4265	1874	6856	72.5	66.9	69.6	
09/22	52.4 ?	51.4	54.9	53.0	53.5	53.9	55.2	56.3	57.1	58.0	56.2	48.9	52.8	56.7	4104	1943	6821	71.5	67.5	69.0	
09/23	53.1 ?	51.6	54.7	53.2	53.8	54.3	55.4	56.3	57.1	58.1	55.9	48.8	52.4	55.8	5054	1958	6870	72.5	67.6	69.8	
09/24	53.1	51.4	54.7	53.2	53.7	54.2	55.5	56.6	57.4	58.4	55.9	48.9	53.6 ?	57.4	5217	1856	6851	72.5	67.4	70.7	
09/25	52.8	51.6	54.6	53.3	53.8	54.3	55.5	56.6	57.4	58.3	55.9	49.2	53.8	57.7	4321	1849	6859	73.5	68.1	70.5	
09/26	53.0	51.8	54.7	53.5	54.1	54.8	55.9	57.0	57.8	58.6	56.5	49.8	55.2	58.8	4803	1746	6855	76.5	73.1	79.1	
09/27	53.1 ?	52.0	54.6	53.7	54.3	55.1	56.3	57.4	58.3	59.1	56.5	49.8	54.7	58.9	4892	1755	6858	85.0	82.1	82.1	
09/28	53.4 ?	52.2	54.4	53.8	54.4	55.1	56.4	57.4	58.3	59.3	56.4	49.8	54.6	58.8	4704	2065	6862	83.5	79.3	83.5	
09/29	53.4	52.2	54.3	53.5	53.9	54.3	55.4	56.5	57.4	58.5	55.4	49.4	53.0	56.7	4259	1910	6867	75.0	66.2	71.8	
09/30	53.5	52.4	54.2	53.5	54.0	54.4	55.2	56.0	56.6	57.2	55.5	49.3	51.9	55.1	4217	1860	6870	80.0	69.4	76.1	
-																					
Sep	51.9	50.7	55.6	52.8	53.4	53.9	55.1	56.3	57.1	58.0	56.9	49.6	53.7	57.5	5097	1612	7075	78.1	71.7	74.3	
															Total CFS	152911	48366	212257			
															Total AF	303293	95932	421003			

**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> IGO thermistor vandalized and out of commission as of 7/29/2020. Data is from nearby temperature logger. A bias has been applied to better represent the IGO location.

D A T E	Redding (RDD) Daily Air Temperatures (°F)																																				
	Actual			Forecasted																																	
	Previous Day			Current Day			1 Day			2 Days			3 Days			4 Days			5 Days			6 Days			7 Days			8 Days			9 Days			10 Days			
	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	↓	↑	Avg	
09/01	62	104	83.0	83	108	95.5	64	102	83.0	65	103	84.0	65	102	83.5	64	106	85.0	68	110	89.0	69	110	89.5	66	106	86.0	63	105	84.0	62	96	79.0	61	92	76.5	
09/02	74	108	91.0	66	99	82.5	64	103	83.5	66	103	84.5	65	107	86.0	67	110	88.5	68	109	88.5	67	106	86.5	66	103	84.5	62	101	81.5	64	100	82.0	62	99	80.5	
09/03	66	98	82.0	66	100	83.0	64	100	82.0	64	104	84.0	67	109	88.0	69	107	88.0	67	103	85.0	65	99	82.0	67	102	84.5	64	101	82.5	63	95	79.0	60	94	77.0	
09/04	65	100	82.5	67	100	83.5	65	105	85.0	72	110	91.0	74	109	91.5	73	100	86.5	64	101	82.5	63	98	80.5	65	99	82.0	61	98	79.5	60	93	76.5	60	94	77.0	
09/05	67	97	82.0	69	103	86.0	73	110	91.5	74	109	91.5	74	100	87.0	63	101	82.0	63	99	81.0	63	100	81.5	62	98	80.0	60	97	78.5	59	91	75.0	59	93	76.0	
09/06	68	100	84.0	66	110	88.0	70	109	89.5	72	101	86.5	64	101	82.5	62	99	80.5	64	98	81.0	63	98	80.5	60	96	78.0	59	95	77.0	57	90	73.5	59	93	76.0	
09/07	66	<b>111</b>	88.5	73	112	92.5	67	93	80.0	60	95	77.5	58	94	76.0	60	96	78.0	63	98	80.5	63	99	81.0	61	98	79.5	61	96	78.5	58	92	75.0	58	93	75.5	
09/08	71	<b>112</b>	91.5	76	93	84.5	61	96	78.5	56	92	74.0	58	94	76.0	60	96	78.0	61	96	78.5	59	91	75.0	60	92	76.0	63	93	78.0	62	89	75.5	58	90	74.0	
09/09	75	98	86.5	77	96	86.5	56	94	75.0	58	94	76.0	58	95	76.5	58	92	75.0	57	87	72.0	57	89	73.0	61	90	75.5	58	92	75.0	59	91	75.0	59	92	75.5	
09/10	59	85	72.0	53	86	69.5	59	93	76.0	59	94	76.5	58	92	75.0	56	88	72.0	57	88	72.5	58	86	72.0	58	86	72.0	60	92	76.0	60	92	76.0	59	91	75.0	
09/11	53	88	70.5	56	91	73.5	62	93	77.5	57	92	74.5	58	90	74.0	57	88	72.5	58	85	71.5	57	84	70.5	57	83	70.0	58	86	72.0	59	89	74.0	58	91	74.5	
09/12	55	91	73.0	56	91	73.5	56	92	74.0	57	88	72.5	55	89	72.0	56	87	71.5	57	84	70.5	55	81	68.0	60	89	74.5	61	94	77.5	61	92	76.5	58	91	74.5	
09/13	55	95	75.0	57	93	75.0	56	90	73.0	54	90	72.0	56	88	72.0	56	84	70.0	55	80	67.5	54	84	69.0	61	92	76.5	59	94	76.5	59	91	75.0	58	91	74.5	
09/14	57	93	75.0	59	89	74.0	54	90	72.0	55	88	71.5	56	83	69.5	54	76	65.0	50	84	67.0	56	90	73.0	59	93	76.0	58	95	76.5	58	91	74.5	58	92	75.0	
09/15	59	91	75.0	57	91	74.0	54	91	72.5	56	84	70.0	53	78	65.5	53	88	70.5	57	92	74.5	58	90	74.0	59	90	74.5	57	94	75.5	58	91	74.5	56	89	72.5	
09/16	55	95	75.0	57	90	73.5	55	86	70.5	52	78	65.0	52	84	68.0	54	90	72.0	55	89	72.0	54	88	71.0	60	88	74.0	59	86	72.5	58	84	71.0	56	87	71.5	
09/17	56	92	74.0	56	88	72.0	54	78	66.0	51	84	67.5	53	90	71.5	54	88	71.0	55	88	71.5	55	90	72.5	59	90	74.5	59	90	74.5	58	87	72.5	58	89	73.5	
09/18	55	92	73.5	50	79	64.5	51	84	67.5	54	91	72.5	54	88	71.0	53	86	69.5	55	91	73.0	56	90	73.0	61	83	72.0	58	87	72.5	57	87	72.0	56	88	72.0	
09/19	66	83	74.5	58	87	72.5	56	92	74.0	55	88	71.5	54	85	69.5	54	88	71.0	55	86	70.5	54	83	68.5	64	89	76.5	57	92	74.5	58	89	73.5	56	88	72.0	
09/20	58	90	74.0	72	94	83.0	57	90	73.5	56	86	71.0	56	86	71.0	55	86	70.5	54	81	67.5	53	86	69.5	65	90	77.5	65	95	80.0	61	92	76.5	59	89	74.0	
09/21	65	96	80.5	58	89	73.5	55	85	70.0	54	86	70.0	55	82	68.5	52	86	69.0	56	94	75.0	62	97	79.5	63	97	80.0	60	97	78.5	60	90	75.0	56	86	71.0	
09/22	57	88	72.5	59	86	72.5	54	87	70.5	55	83	69.0	52	86	69.0	57	95	76.0	65	99	82.0	65	100	82.5	64	100	82.0	61	97	79.0	61	91	76.0	57	89	73.0	
09/23	57	86	71.5	58	86	72.0	54	82	68.0	53	87	70.0	58	94	76.0	64	98	81.0	66	101	83.5	64	102	83.0	63	98	80.5	61	97	79.0	60	91	75.5	57	90	73.5	
09/24	57	88	72.5	61	83	72.0	52	86	69.0	57	90	73.5	63	97	80.0	65	100	82.5	63	102	82.5	63	100	81.5	62	94	78.0	60	92	76.0	59	89	74.0	56	89	72.5	
09/25	60	85	72.5	59	85	72.0	56	86	71.0	59	94	76.5	62	98	80.0	59	99	79.0	59	99	79.0	59	98	78.5	58	96	77.0	58	95	76.5	58	89	73.5	56	87	71.5	
09/26	59	88	73.5	63	88	75.5	61	93	77.0	61	97	79.0	59	99	79.0	60	101	80.5	61	100	80.5	58	97	77.5	61	92	76.5	57	84	70.5	57	81	69.0	54	80	67.0	
09/27	61	92	76.5	72	93	82.5	62	96	79.0	58	97	77.5	60	101	80.5	60	100	80.0	59	96	77.5	58	95	76.5	61	90	75.5	58	90	74.0	57	87	72.0	56	88	72.0	
09/28	72	98	85.0	65	98	81.5	58	97	77.5	60	102	81.0	61	100	80.5	61	96	78.5	60	94	77.0	58	91	74.5	58	92	75.0	57	92	74.5	57	86	71.5	54	85	69.5	
09/29	65	102	83.5	59	96	77.5	60	99	79.5	63	101	82.0	62	97	79.5	60	95	77.5	58	93	75.5	57	94	75.5	59	93	76.0	56	93	74.5	57	87	72.0	54	86	70.0	
09/30	58	92	75.0	58	98	78.0	65	100	82.5	62	99	80.5	61	95	78.0	57	91	74.0	56	93	74.5	57	93	75.0	58	92	75.0	57	90	73.5	54	79	66.5	53	81	67.0	
-																																					

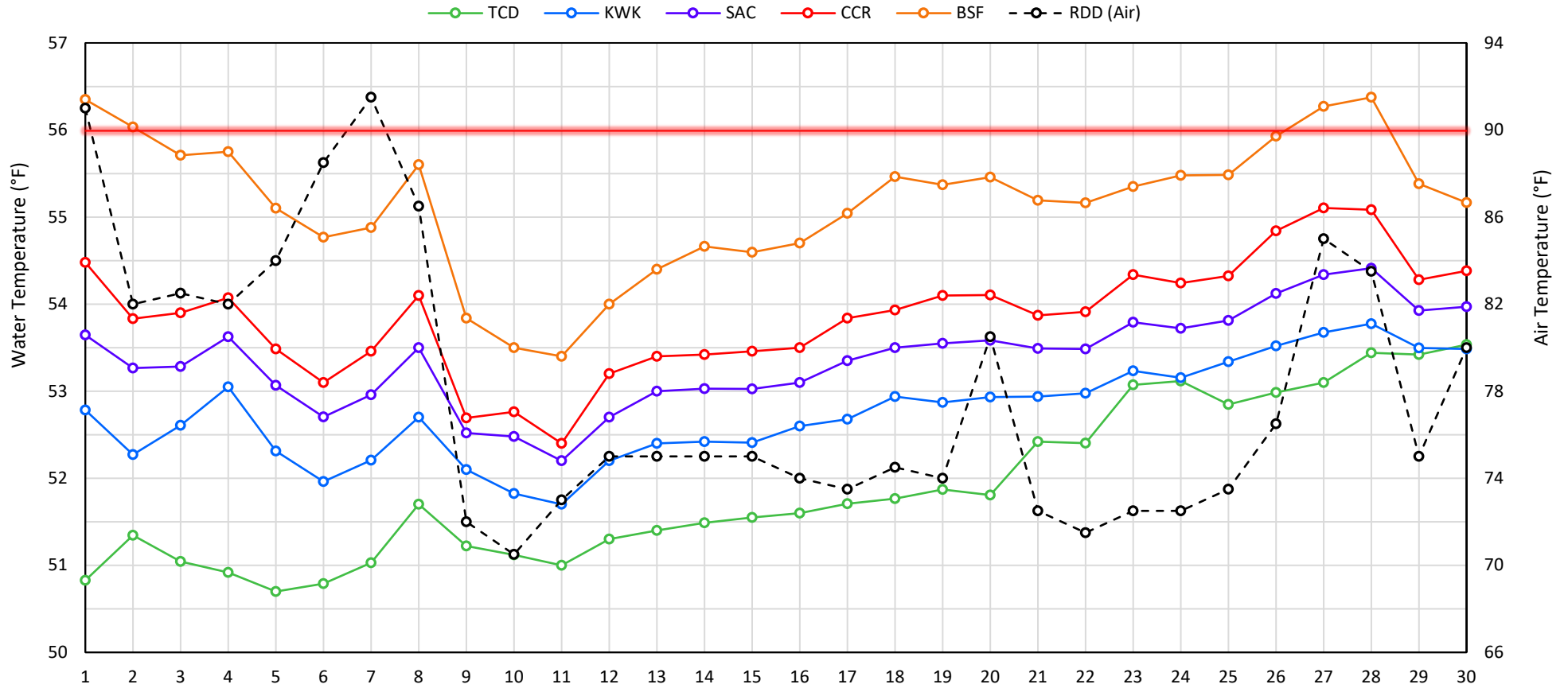
Web Links

- [10-Day Min/Max Forecast](#)
- [Previous Days Min/Max Actuals](#)

Legend

- NR = Forecasted temperatures not recorded
- 100** = Previous day actual temperatures in red and bolded indicate a record temperature for that date

## 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	BSF	56	05/15/2019	09/20/2020
Sacramento	CCR	56	09/21/2020	TBD
Trinity	DGC	56	09/15/2020	10/01/2020
Trinity	NFH	56	10/01/2020	12/31/2020

### Notes

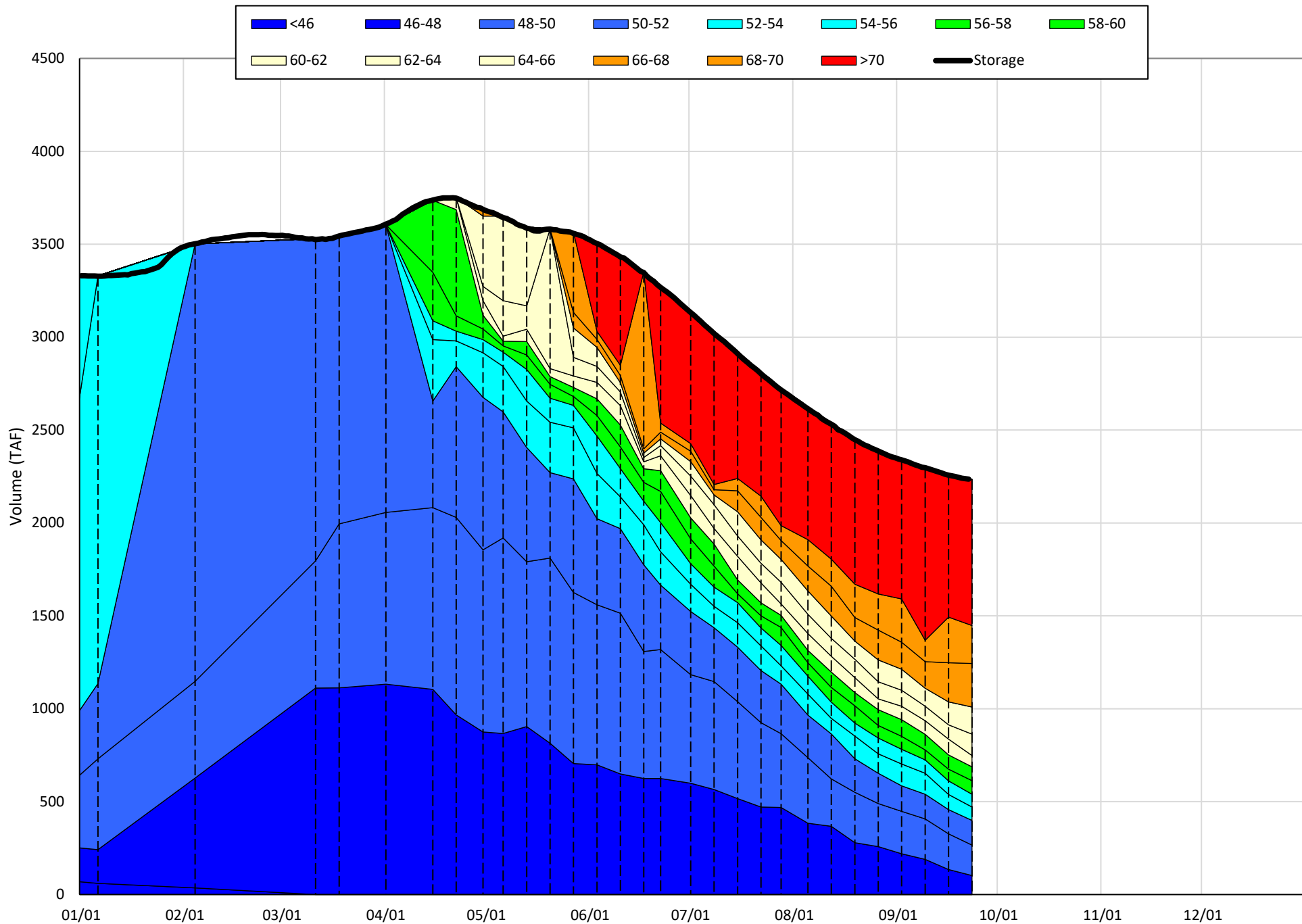
<sup>1</sup> Distances are approximate

# Shasta Lake Isothermobaths & Cold Water Pool Statistics

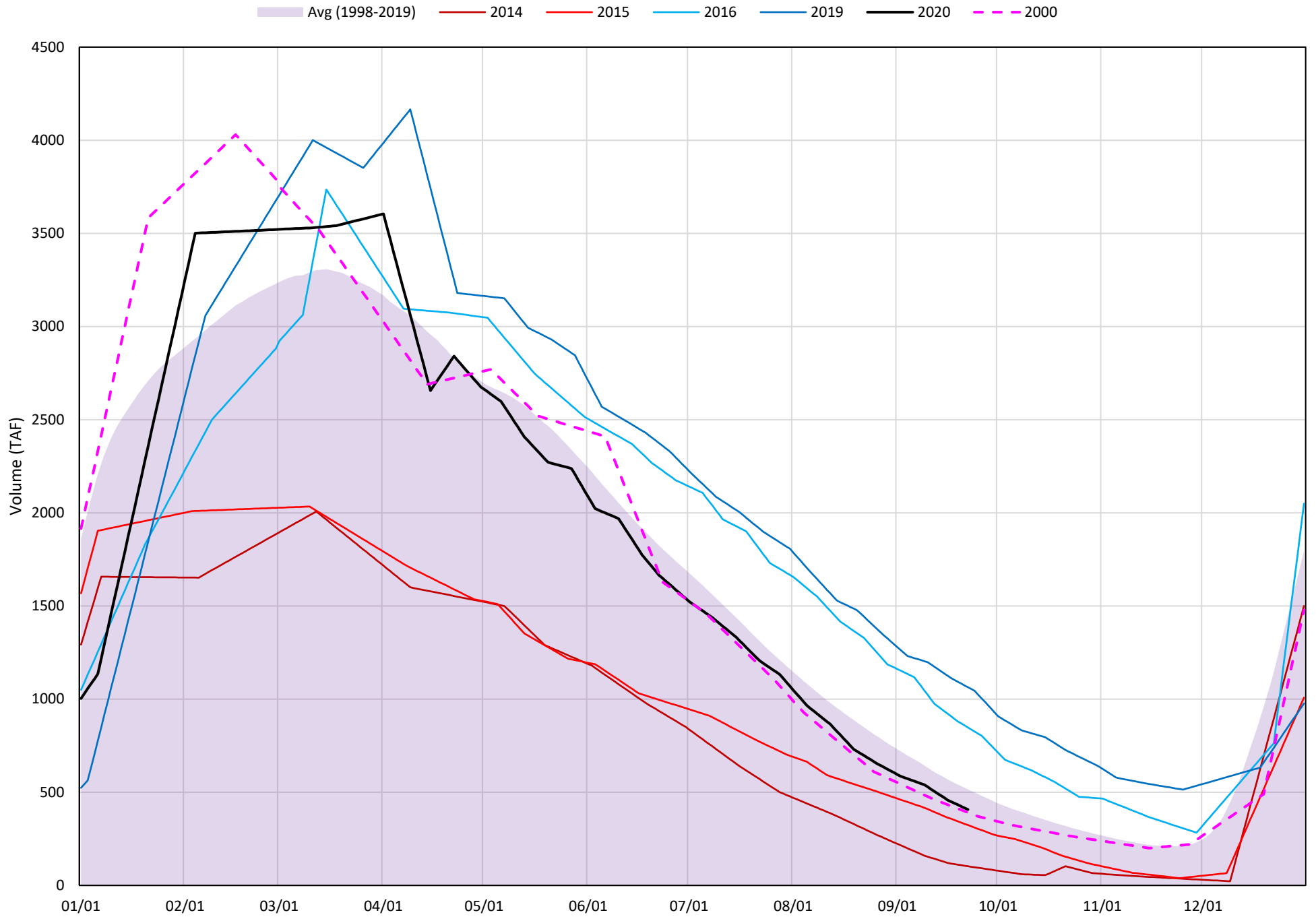
## 2020

Page	Description
6	- Shasta Lake Isothermobaths Plot
7	- Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$
8	- Shasta Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$
9	- Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$
10	- Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - Percent Exceedances
11	- Shasta Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$ - Percent Exceedances
12	- Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$ - Percent Exceedances
13	- Shasta Lake Cold Water Pool Comparison by Year

Shasta Lake Isothermobaths Plot - 2020

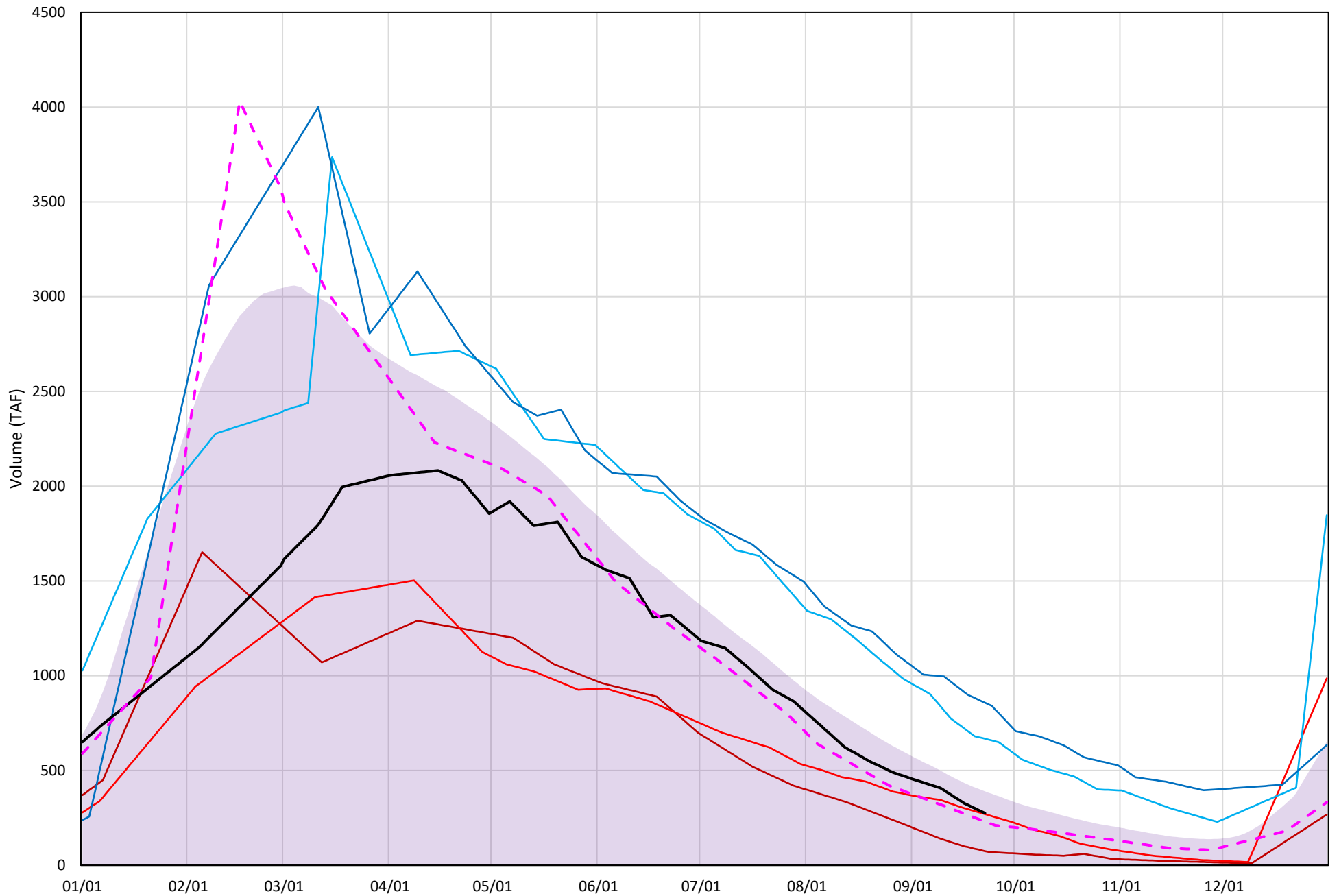


# Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$



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

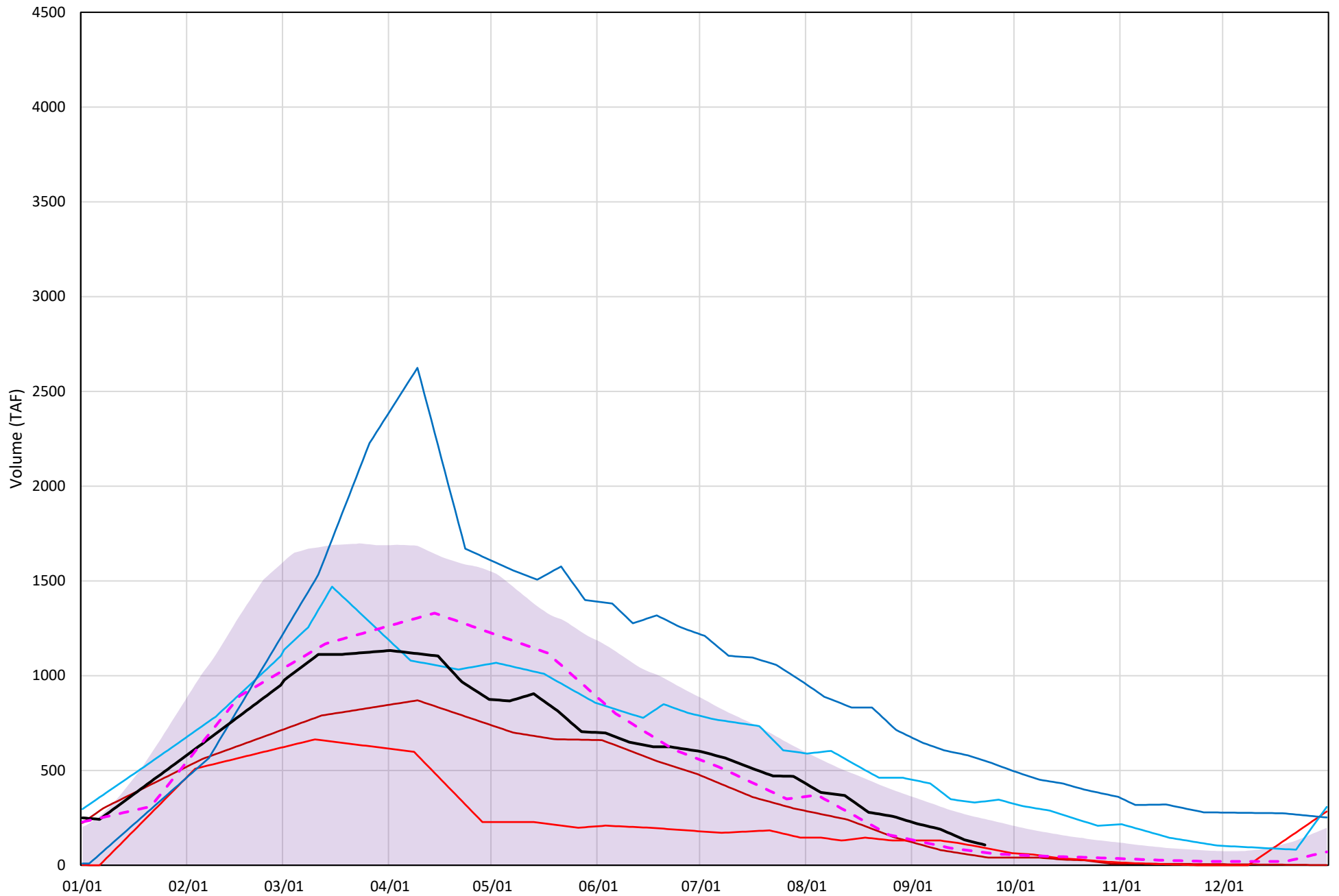
Avg (1998-2019) 2014 2015 2016 2019 2020 2000





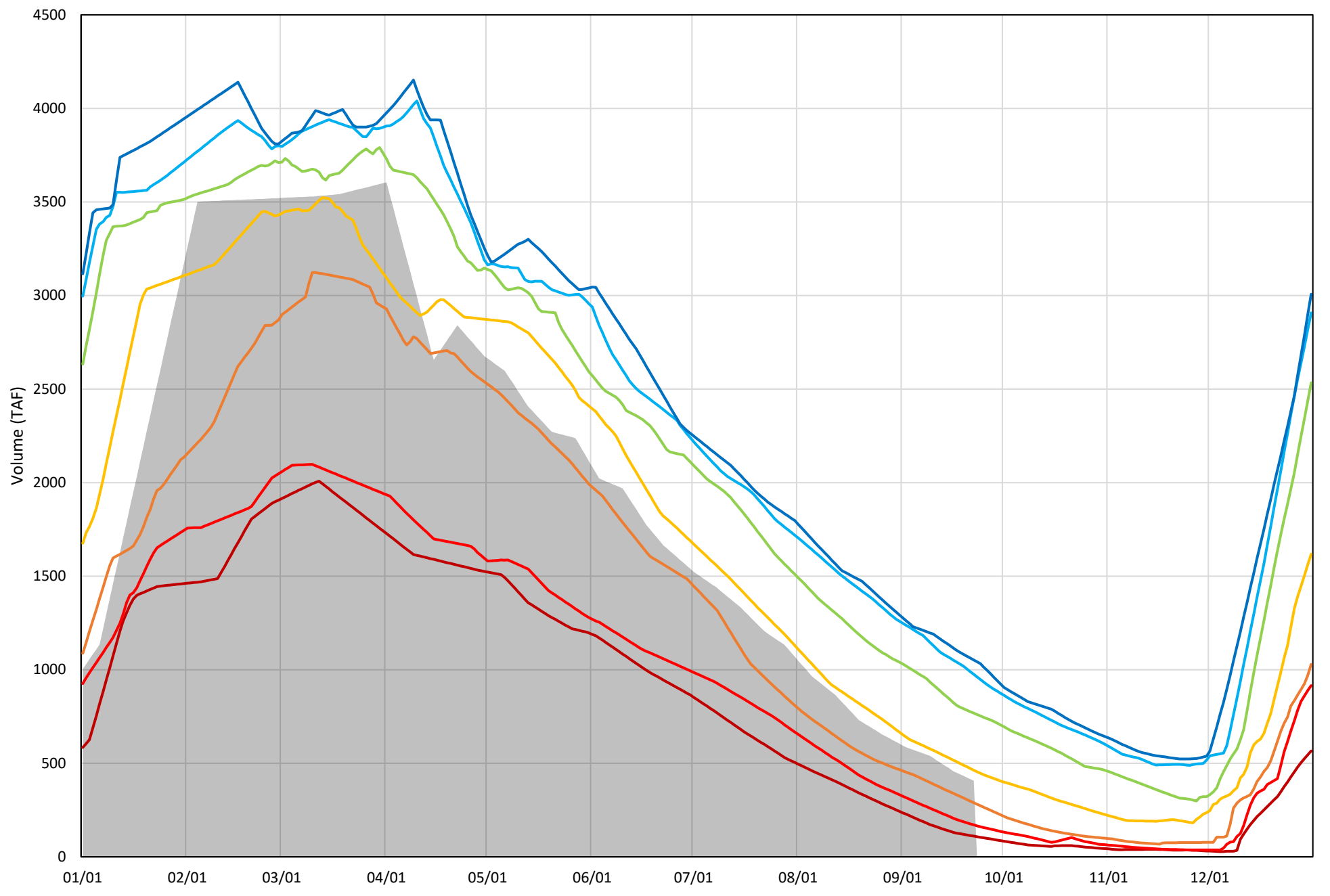
# Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

Avg (1998-2019) 2014 2015 2016 2019 2020 2000

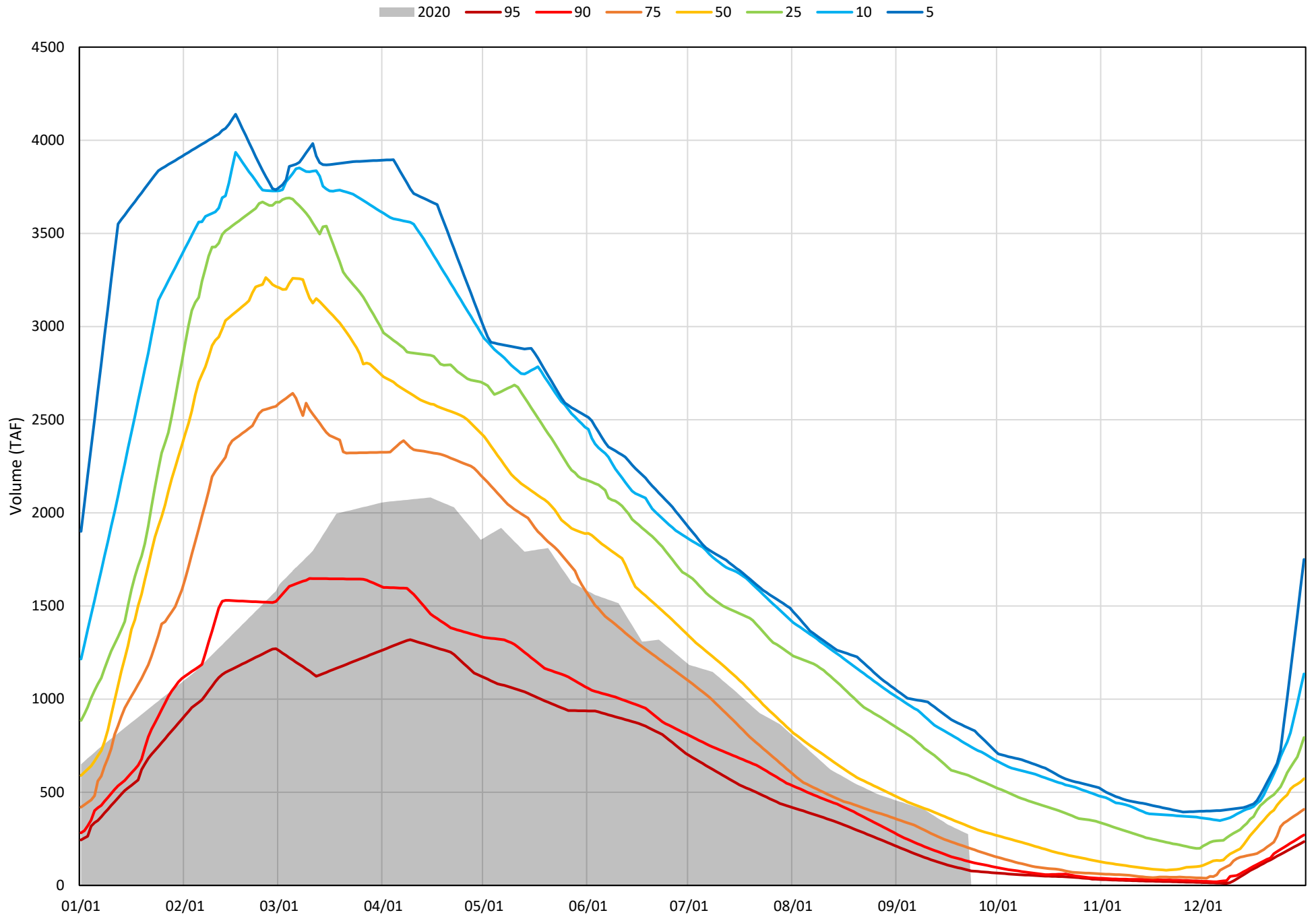


Shasta Lake Cold Water Pool Volume  $\leq 52^{\circ}\text{F}$  - Percent Exceedances (1998-2019)

2020 95 90 75 50 25 10 5

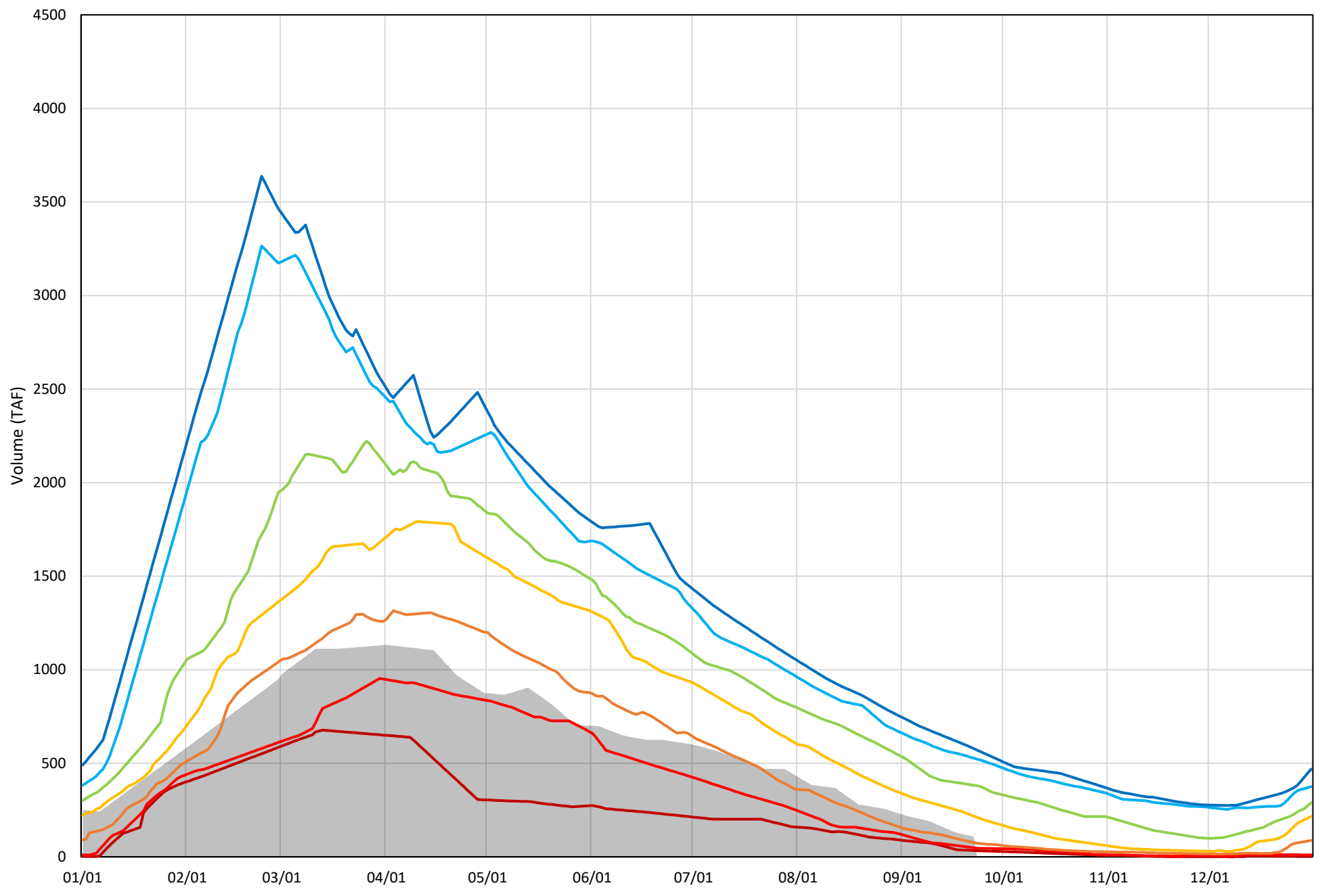


Shasta Lake Cold Water Pool Volume  $\leq 50^{\circ}\text{F}$  - Percent Exceedances (1998-2019)



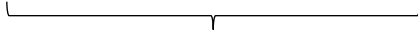
Shasta Lake Cold Water Pool Volume  $\leq 48^{\circ}\text{F}$  - Percent Exceedances (1998-2019)

2020 95 90 75 50 25 10 5

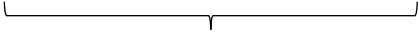


### Shasta Lake Cold Water Pool Comparison by Year (for Specified Date)

Sep-23 2020	$\Delta$ TAF				% $\Delta$			
	$\leq 52^\circ$	$\leq 50^\circ$	$\leq 48^\circ$	Abs. Avg.	$\leq 52^\circ$	$\leq 50^\circ$	$\leq 48^\circ$	Abs. Avg.
1998	-85	-121	-75	94	-21	-44	-70	45
1999	341	317	335	331	84	115	313	171
2000	-17	-44	-40	34	-4	-16	-37	19
2001	-67	-2	98	55	-16	-1	92	36
2002	114	154	284	184	28	56	265	116
2003	111	-10	-46	56	27	-4	-43	25
2004	-200	-139	-32	124	-49	-51	-30	43
2005	-144	-108	-31	94	-35	-39	-29	35
2006	147	159	173	160	36	58	162	85
2007	-111	-32	70	71	-27	-11	65	35
2008	-252	-148	-15	138	-62	-54	-14	43
2009	-137	-60	48	82	-34	-22	45	33
2010	422	316	226	321	104	115	211	143
2011	581	507	476	521	143	184	445	257
2012	265	287	274	275	65	104	256	142
2013	1	89	180	90	0	32	168	67
2014	-304	-201	-64	190	-75	-73	-60	69
2015	-84	-5	-16	35	-21	-2	-15	12
2016	440	393	230	354	108	143	215	155
2017	538	412	367	439	132	150	343	208
2018	164	191	124	160	40	70	116	75
2019	656	583	443	561	161	212	414	262
2020	0	0	0	0	0	0	0	0



Historic - Current



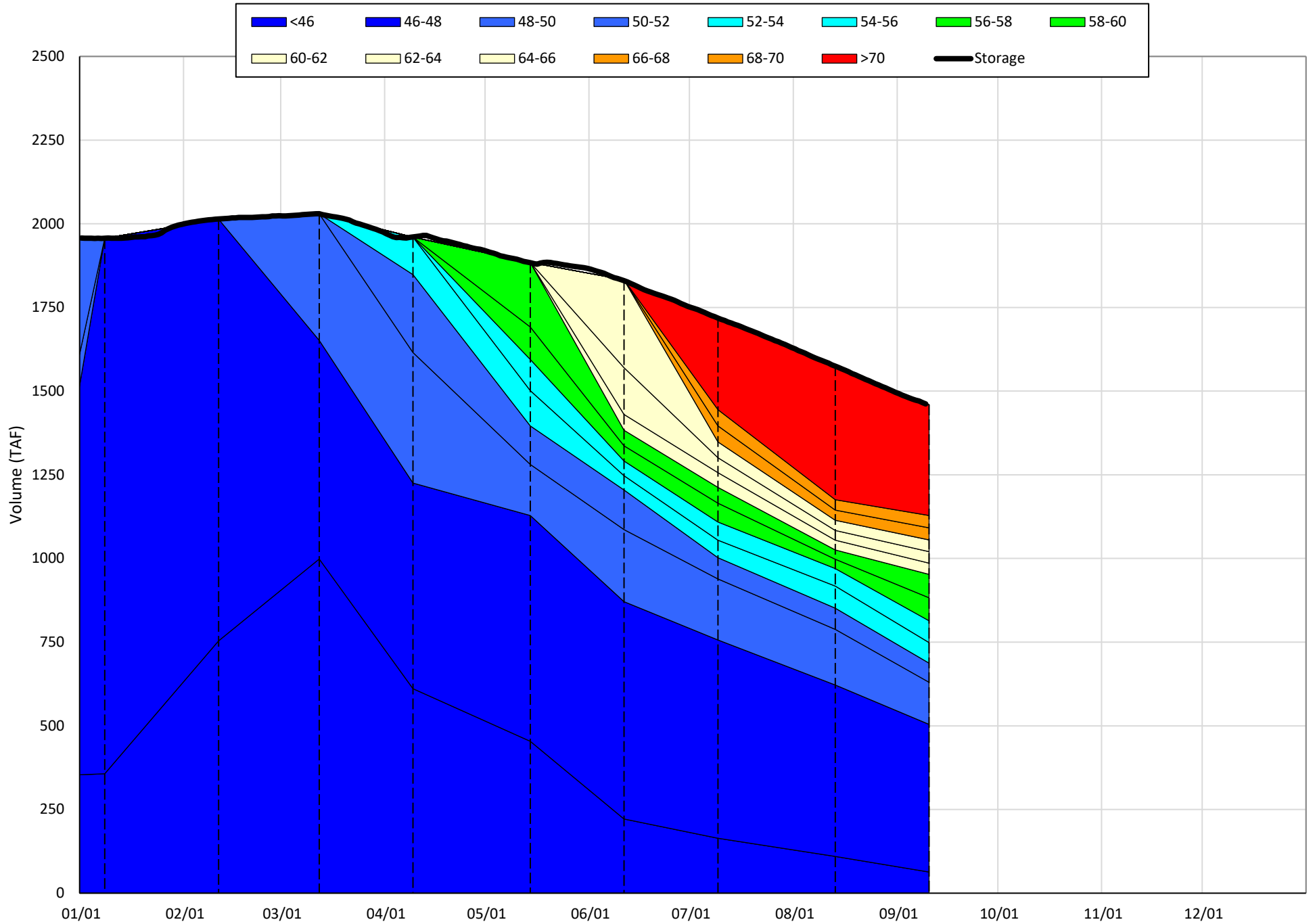
(Historic - Current) / Current

# Trinity Lake Isothermobaths & Cold Water Pool Statistics

## 2020

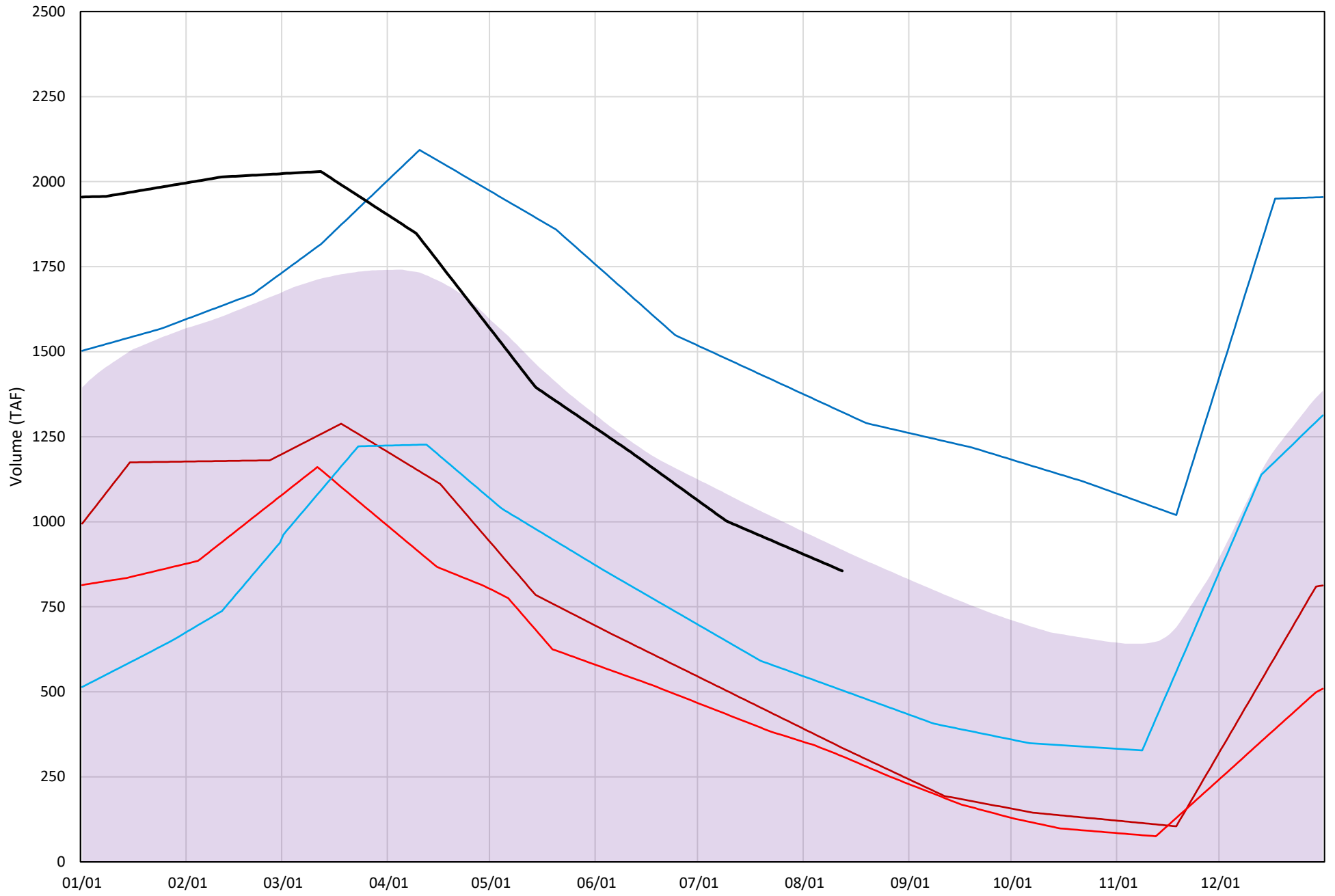
Page	Description
15	- Trinity Lake Isothermobaths Plot
16	- Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$
17	- Trinity Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$
18	- Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$
19	- Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - Percent Exceedances
20	- Trinity Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$ - Percent Exceedances
21	- Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$ - Percent Exceedances
22	- Trinity Lake Cold Water Pool Comparison by Year

Trinity Lake Isothermobaths Plot - 2020



# Trinity Lake Cold Water Pool Volume ≤52°F

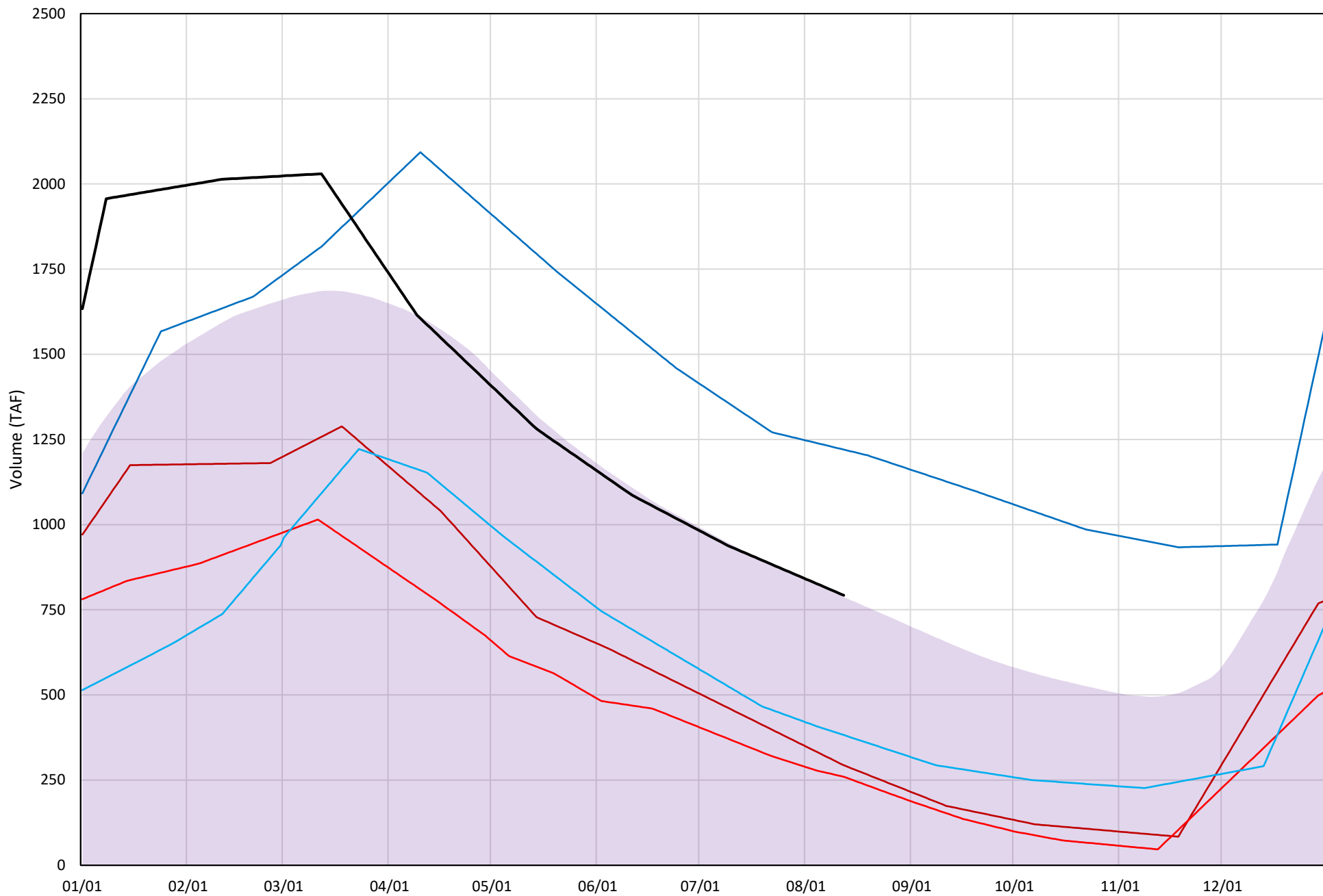
Avg (2000-2019) 2014 2015 2016 2019 2020





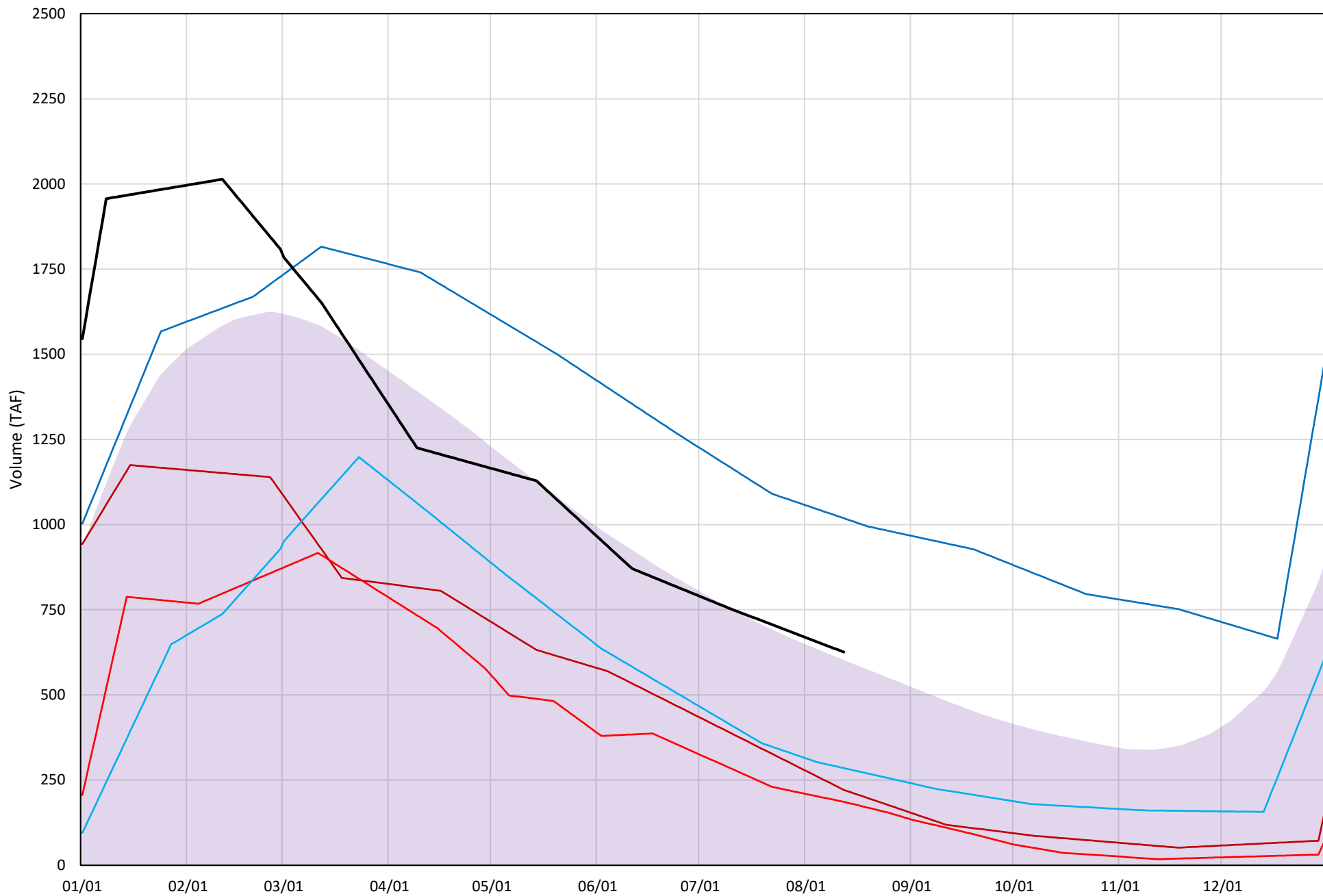
# Trinity Lake Cold Water Pool Volume ≤50°F

Avg (2000-2019) 2014 2015 2016 2019 2020



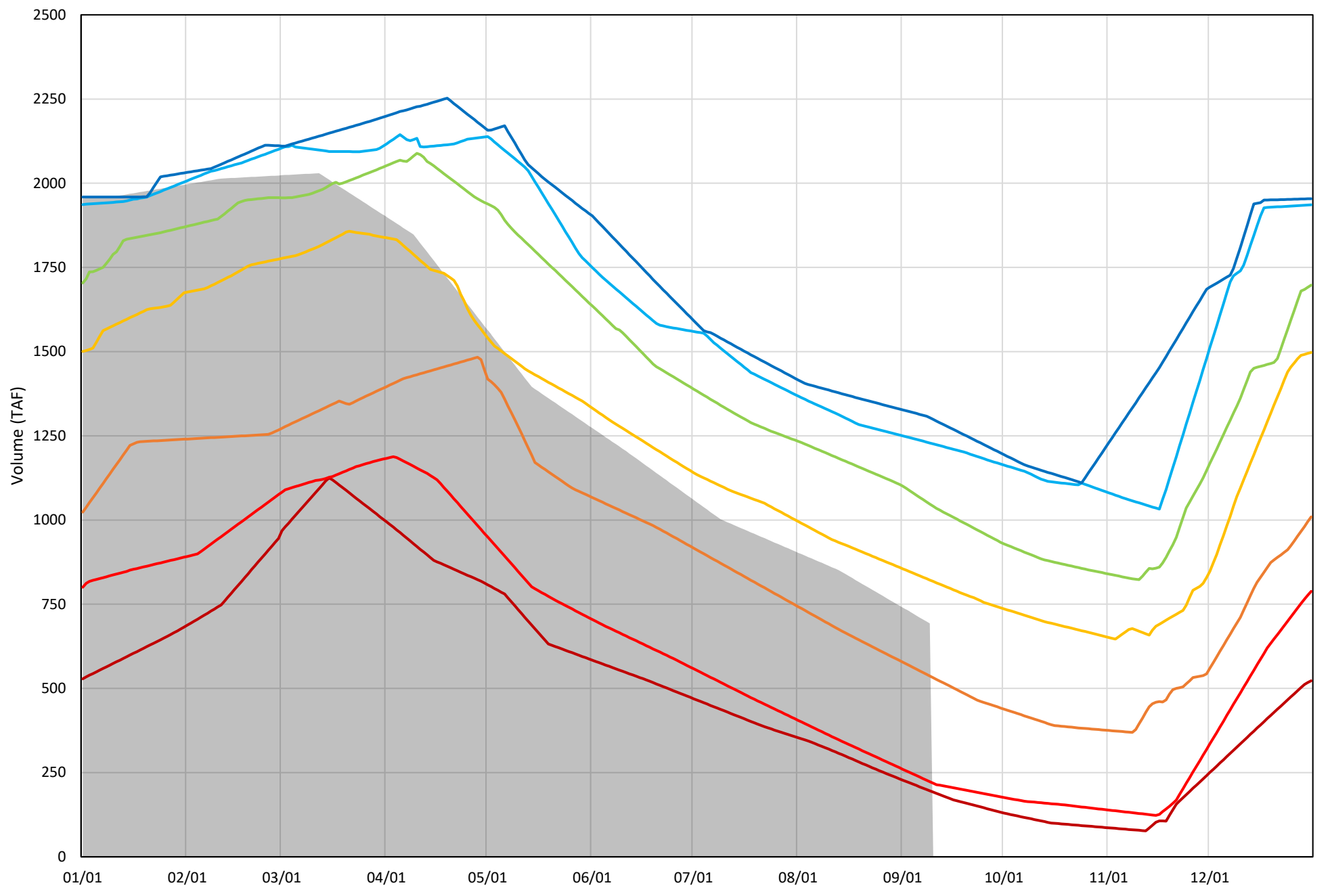
# Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020

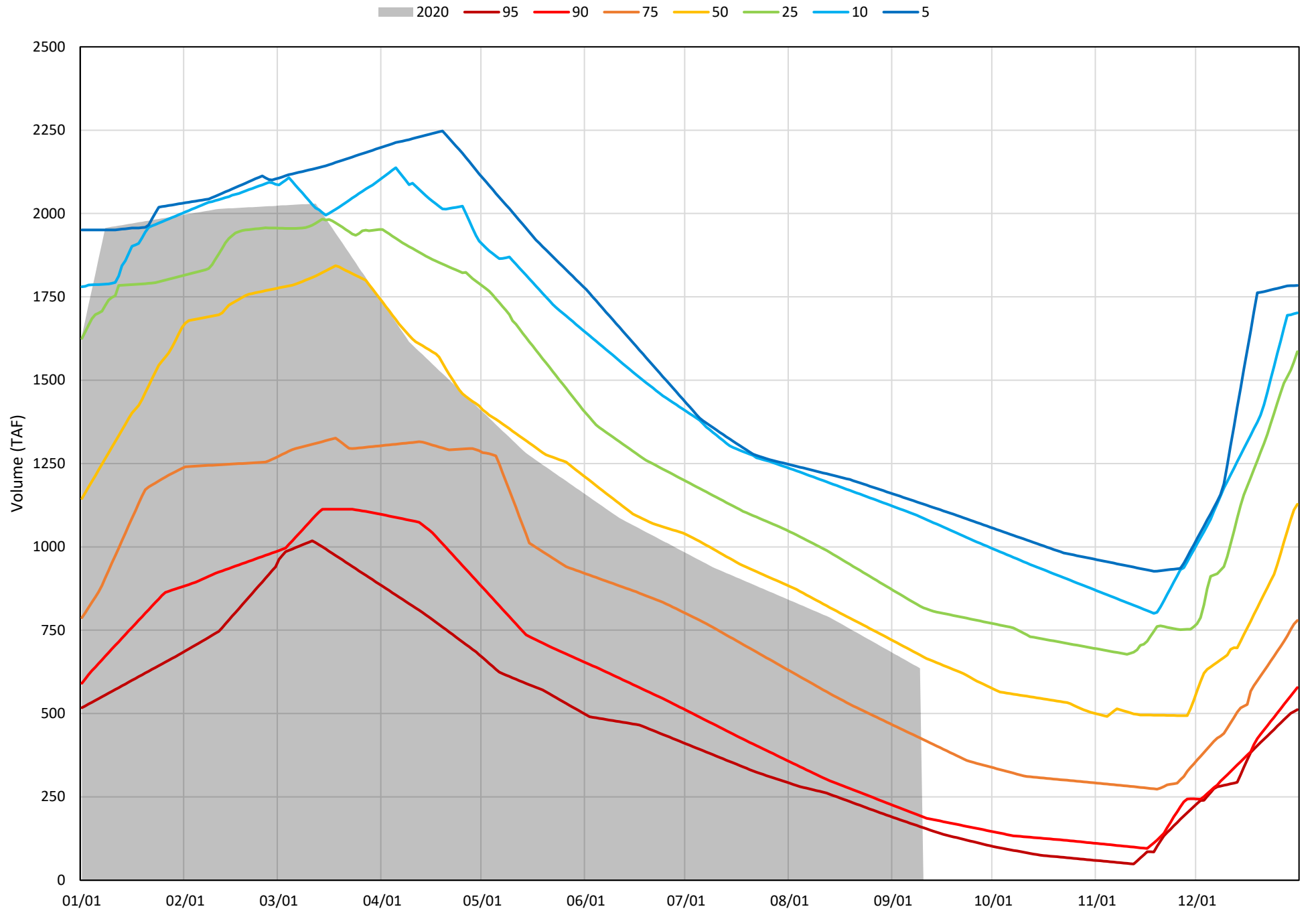


Trinity Lake Cold Water Pool Volume ≤52°F - Percent Exceedances (2000-2019)

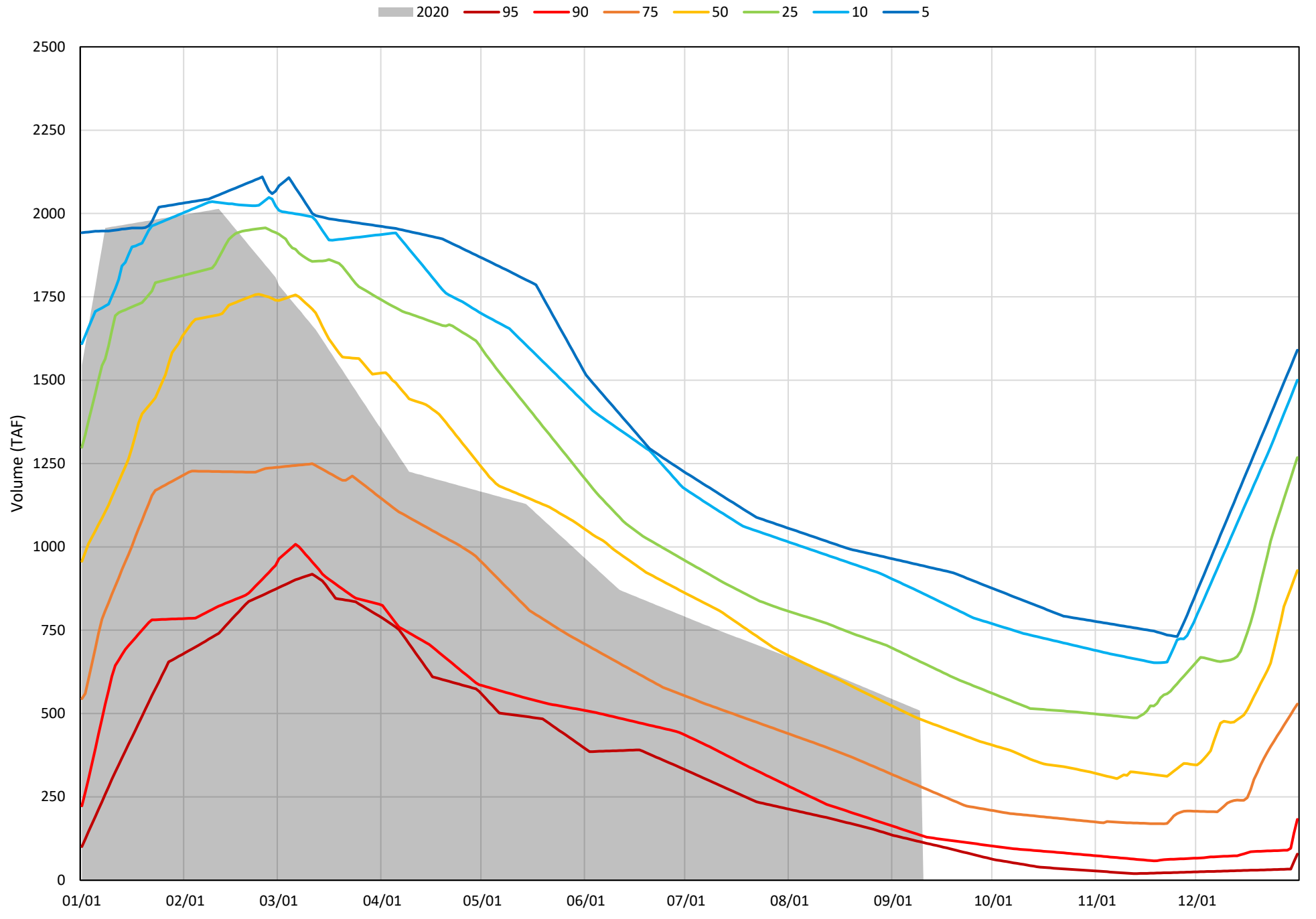
2020 95 90 75 50 25 10 5



Trinity Lake Cold Water Pool Volume  $\leq 50^{\circ}\text{F}$  - Percent Exceedances (2000-2019)



Trinity Lake Cold Water Pool Volume  $\leq 48^{\circ}\text{F}$  - Percent Exceedances (2000-2019)



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

Sep-10 2020	Δ TAF				% Δ			
	≤52°	≤50°	≤48°	Abs. Avg.	≤52°	≤50°	≤48°	Abs. Avg.
2000	186	39	-41	89	27	6	-8	14
2001	61	16	-12	29	9	2	-2	5
2002	73	40	44	53	11	6	9	9
2003	369	186	48	201	53	29	9	31
2004	130	35	-61	75	19	5	-12	12
2005	311	183	-39	178	45	29	-8	27
2006	421	299	166	295	61	47	33	47
2007	128	87	91	102	18	14	18	17
2008	-183	-244	-248	225	-26	-38	-49	38
2009	-255	-275	-284	272	-37	-43	-56	45
2010	120	-15	-162	99	17	-2	-32	17
2011	614	465	337	472	89	73	66	76
2012	393	367	358	373	57	58	70	62
2013	-75	-103	-110	96	-11	-16	-22	16
2014	-490	-453	-383	442	-71	-71	-75	72
2015	-497	-476	-394	456	-72	-75	-77	75
2016	-289	-344	-286	306	-42	-54	-56	51
2017	244	86	9	113	35	13	2	17
2018	216	186	167	190	31	29	33	31
2019	548	498	441	496	79	78	87	81
2020	0	0	0	0	0	0	0	0

}

Historic - Current

}

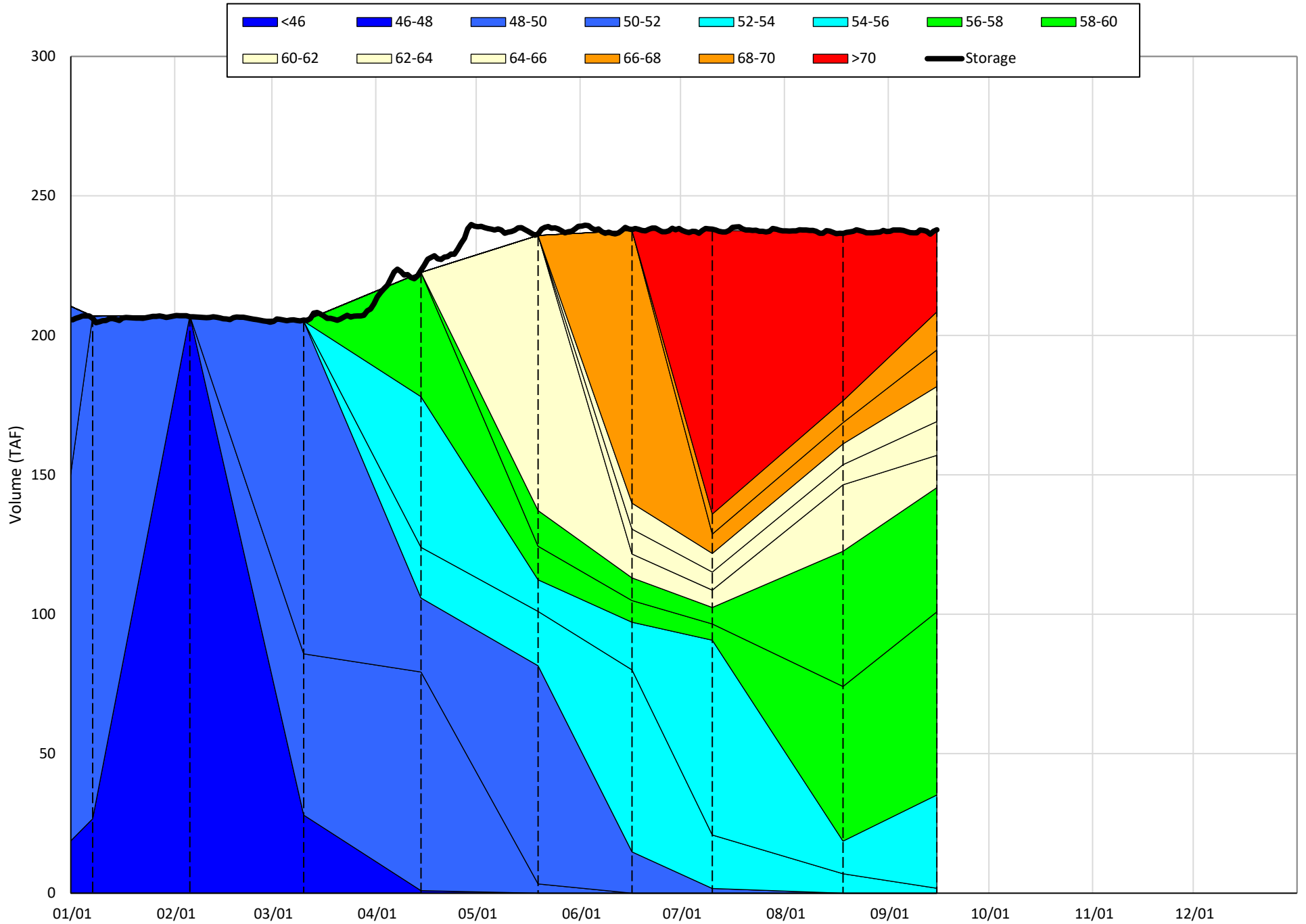
(Historic - Current) / Current

# Whiskeytown Lake Isothermobaths & Cold Water Pool Statistics

## 2020

Page	Description
24	- Whiskeytown Lake Isothermobaths Plot
25	- Whiskeytown Lake Cold Water Pool Volume $\leq 60^{\circ}\text{F}$
26	- Whiskeytown Lake Cold Water Pool Volume $\leq 58^{\circ}\text{F}$
27	- Whiskeytown Lake Cold Water Pool Volume $\leq 56^{\circ}\text{F}$
28	- Whiskeytown Lake Cold Water Pool Volume $\leq 60^{\circ}\text{F}$ - Percent Exceedances
29	- Whiskeytown Lake Cold Water Pool Volume $\leq 58^{\circ}\text{F}$ - Percent Exceedances
30	- Whiskeytown Lake Cold Water Pool Volume $\leq 56^{\circ}\text{F}$ - Percent Exceedances
31	- Whiskeytown Lake Cold Water Pool Comparison by Year

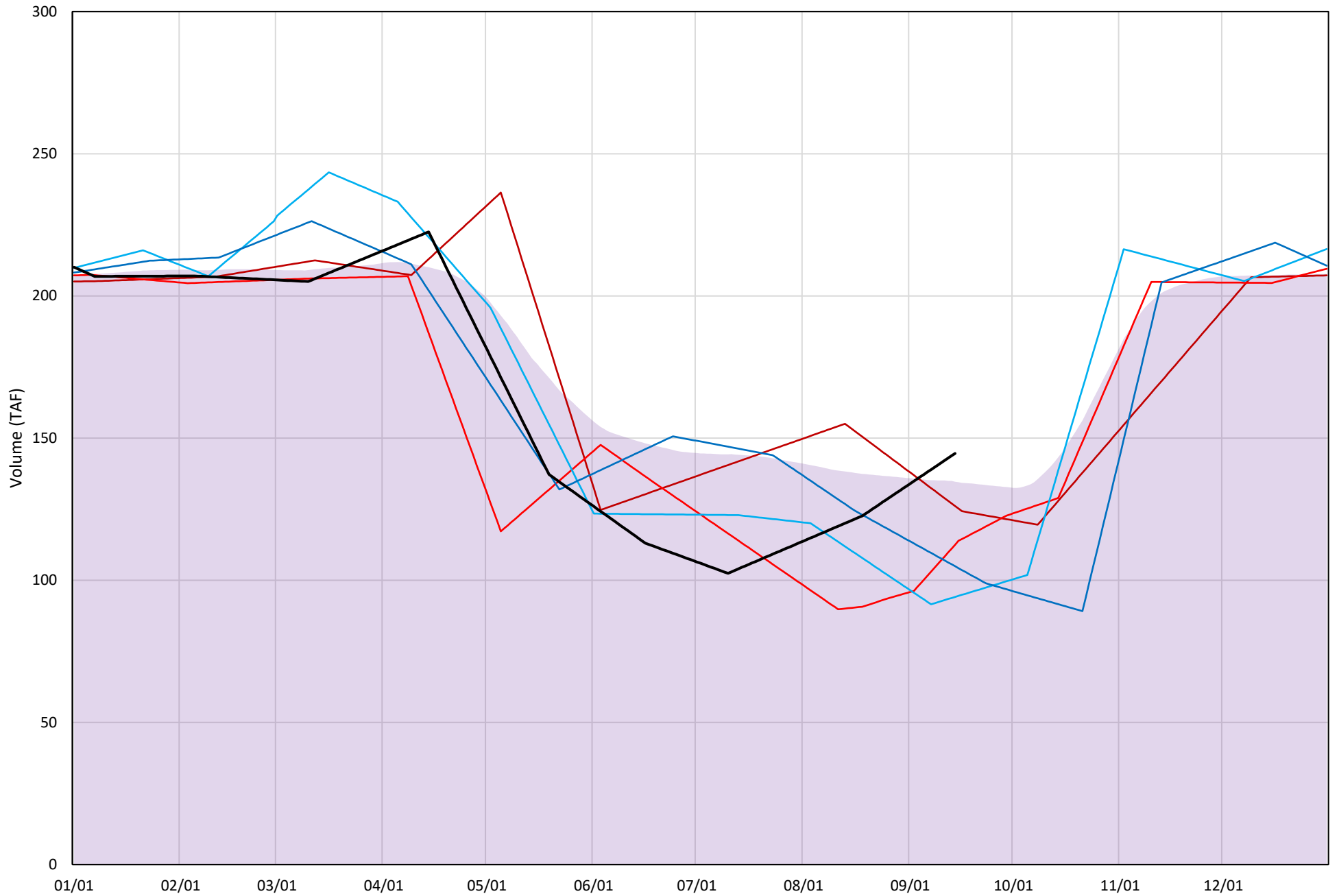
Whiskeytown Lake Isothermobaths Plot - 2020





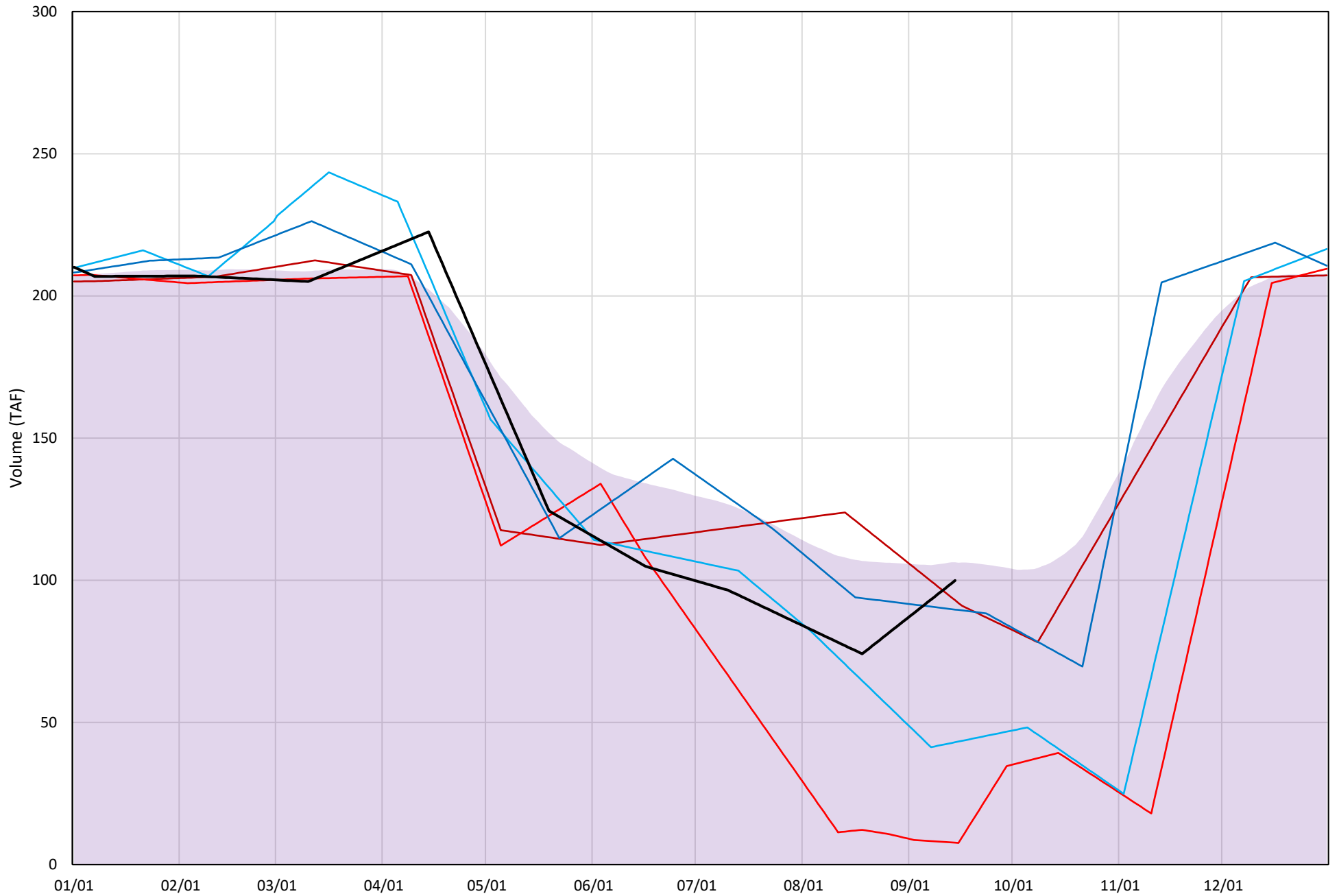
# Whiskeytown Lake Cold Water Pool Volume $\leq 60^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020



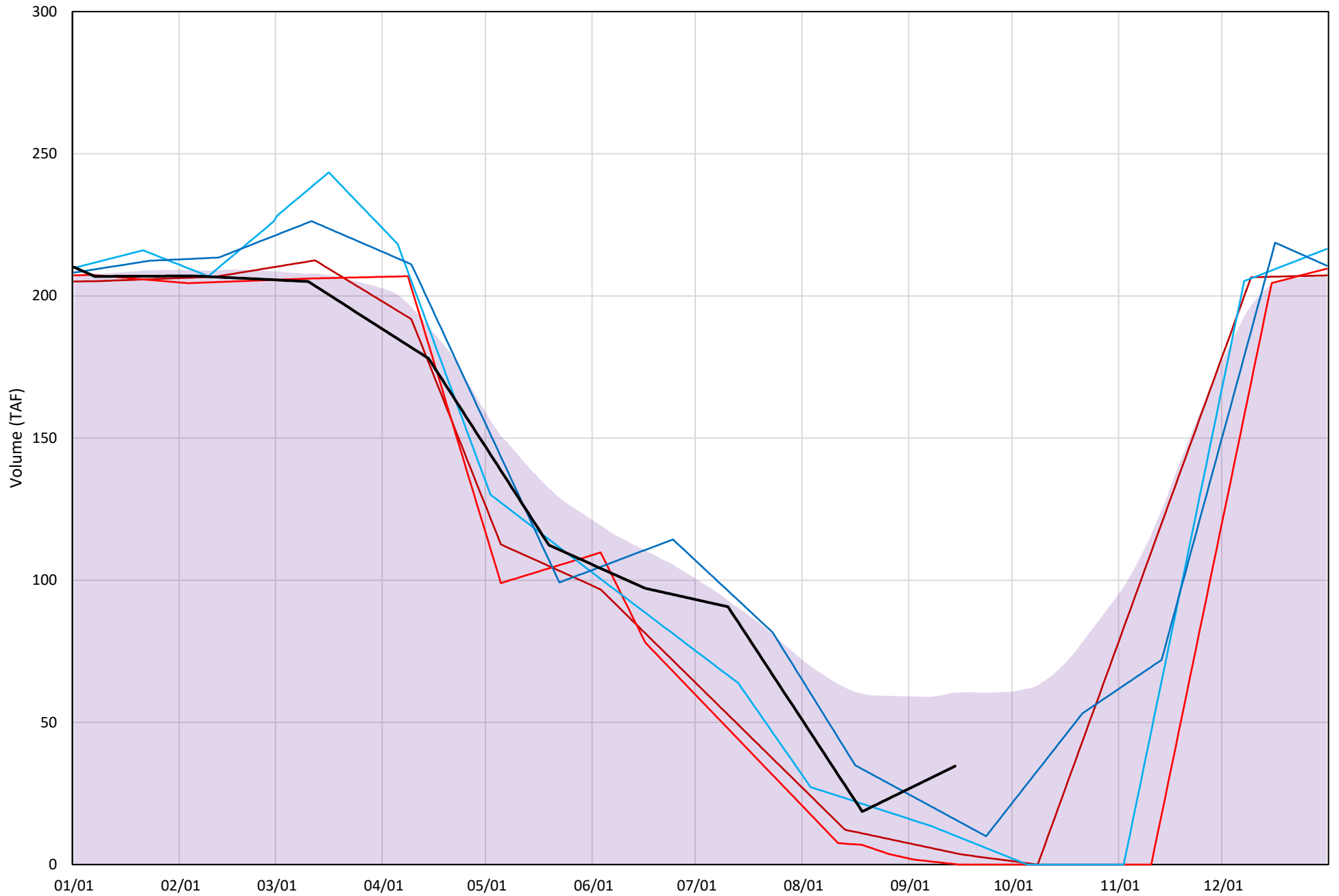
# Whiskeytown Lake Cold Water Pool Volume $\leq 58^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020

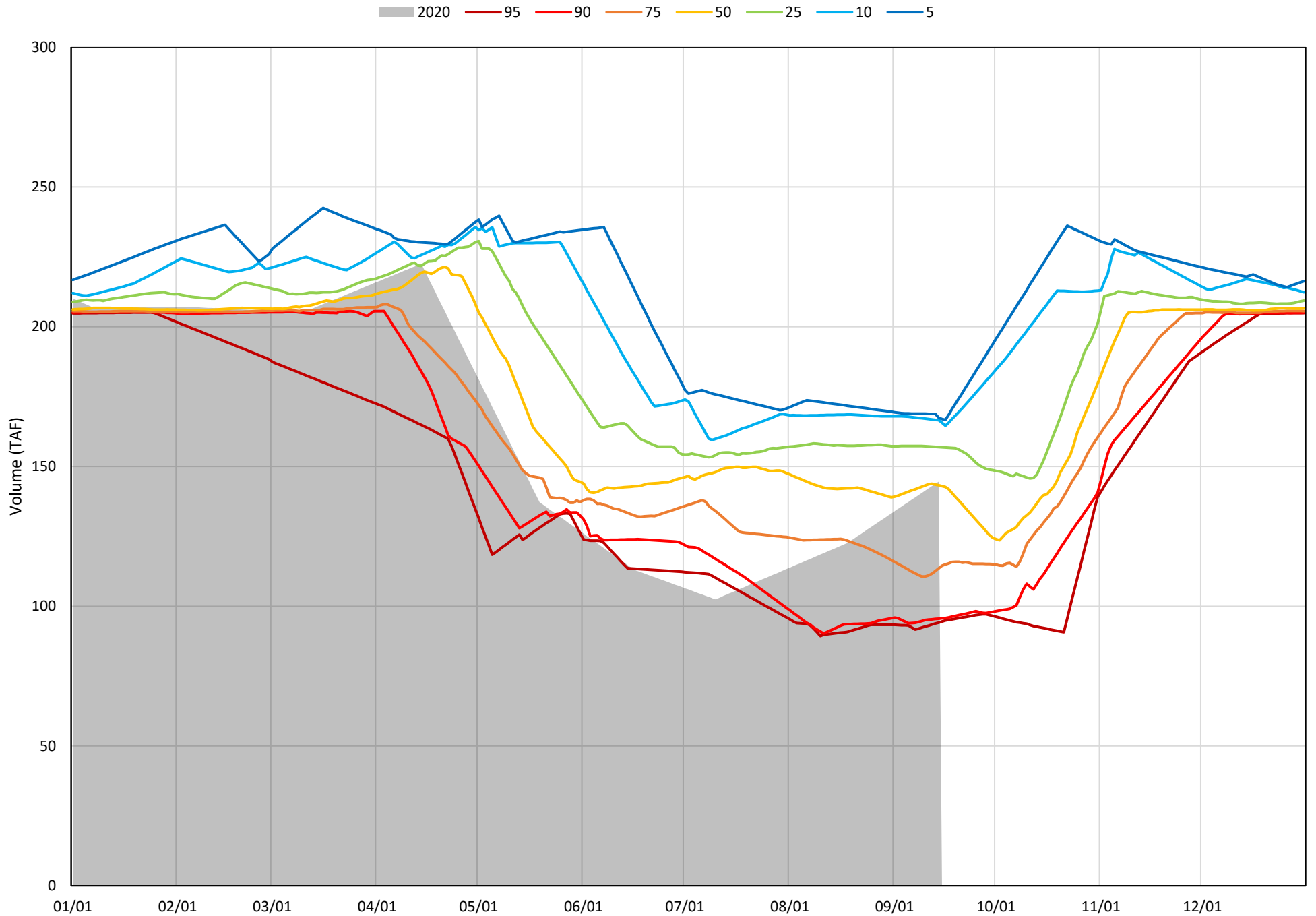


# Whiskeytown Lake Cold Water Pool Volume $\leq 56^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020

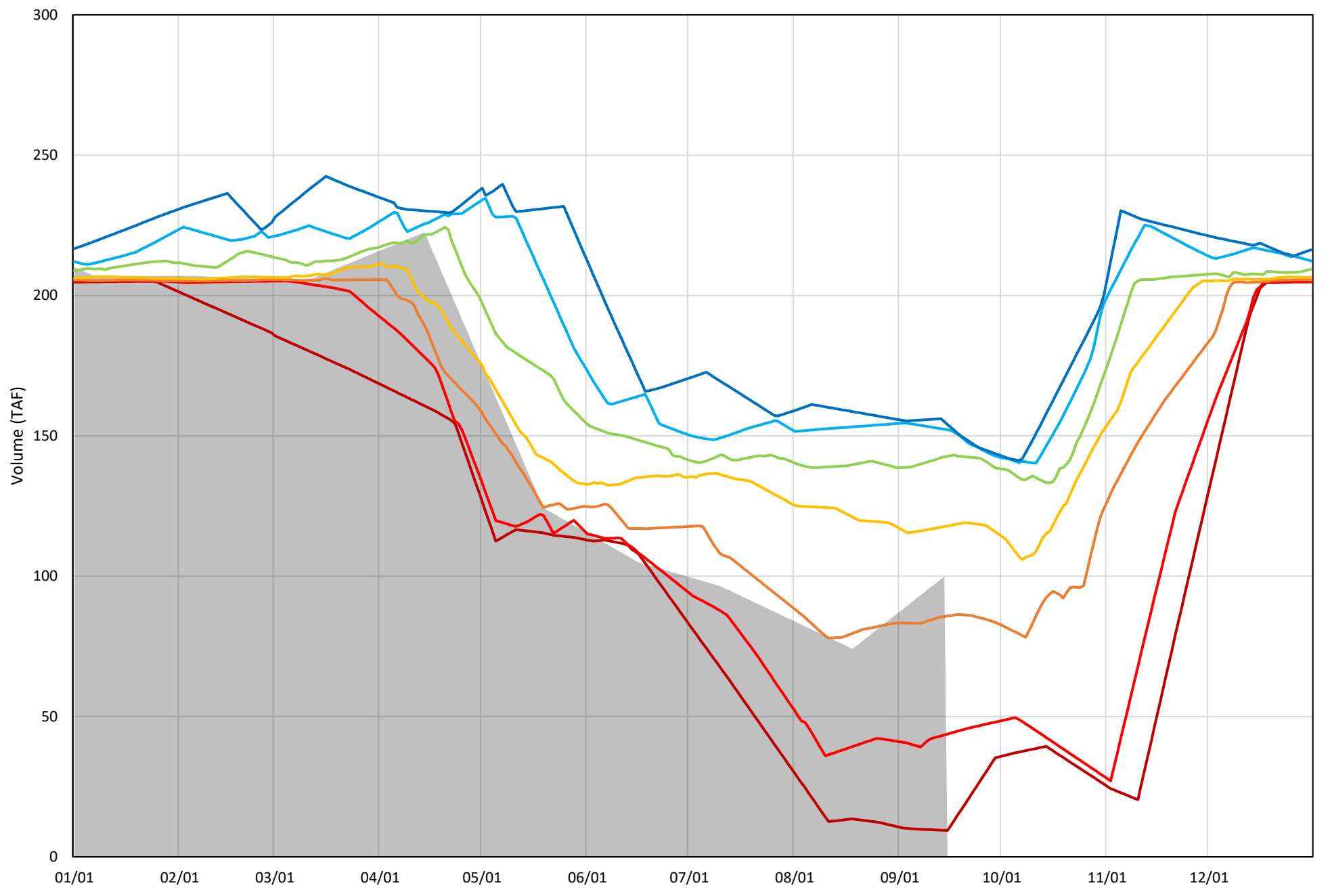


Whiskeytown Lake Cold Water Pool Volume  $\leq 60^{\circ}\text{F}$  - Percent Exceedances (2000-2019)

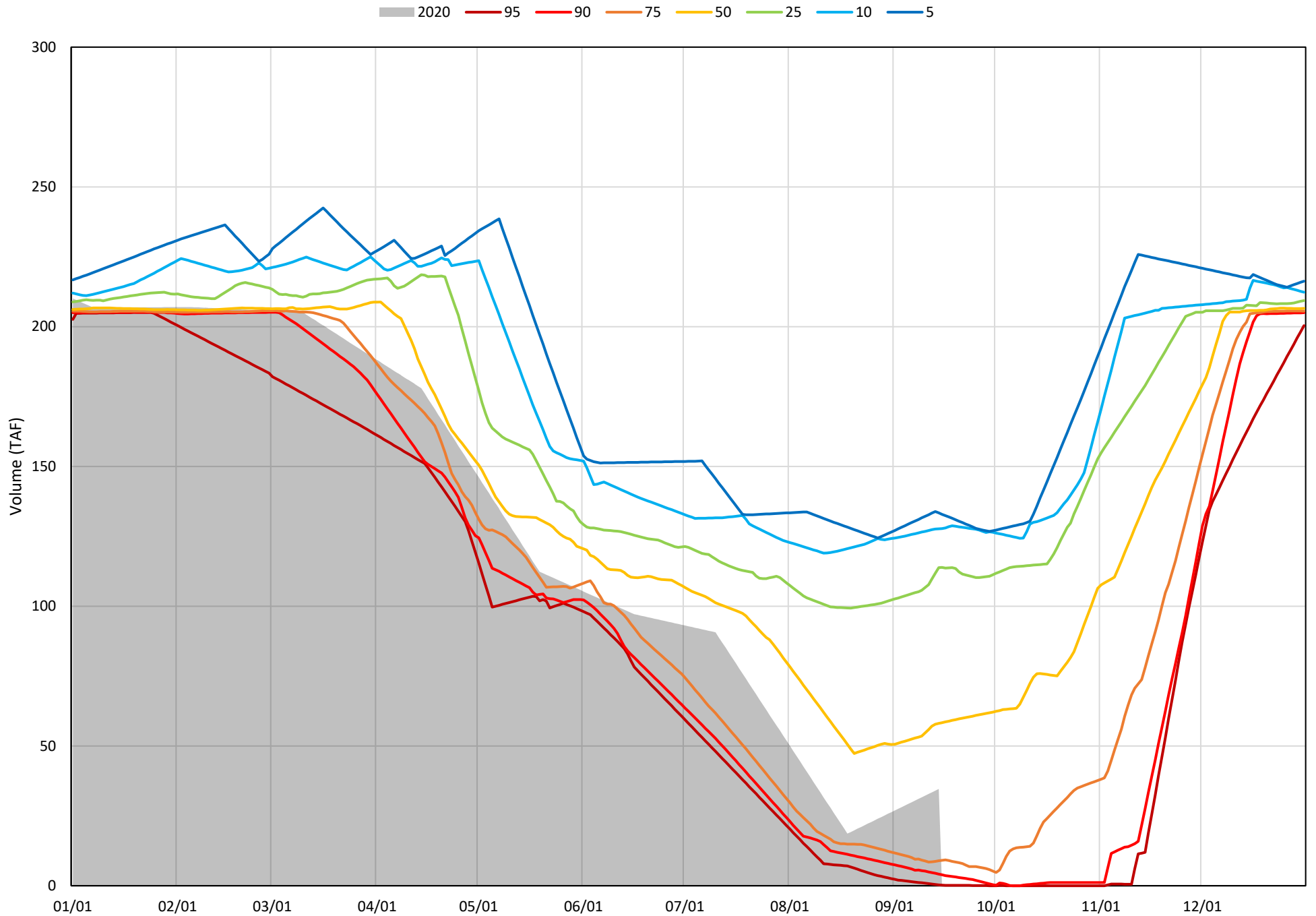


Whiskeytown Lake Cold Water Pool Volume  $\leq 58^{\circ}\text{F}$  - Percent Exceedances (2000-2019)

2020 95 90 75 50 25 10 5



Whiskeytown Lake Cold Water Pool Volume  $\leq 56^{\circ}\text{F}$  - Percent Exceedances (2000-2019)



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

Sep-15 2020	Δ TAF				% Δ			
	≤60°	≤58°	≤56°	Abs. Avg.	≤60°	≤58°	≤56°	Abs. Avg.
2000	1	41	88	43	1	41	255	99
2001	14	49	94	52	10	49	271	110
2002	13	47	74	45	9	47	215	90
2003	3	43	81	42	2	43	233	93
2004	10	36	46	31	7	36	133	59
2005	-50	-53	-26	43	-35	-53	-75	54
2006	23	55	99	59	16	55	286	119
2007	1	24	43	23	1	24	126	50
2008	0	32	68	33	0	32	196	76
2009	-24	-15	-29	23	-16	-15	-85	39
2010	-34	-48	-28	37	-23	-48	-81	51
2011	-28	-11	-14	18	-19	-11	-39	23
2012	-3	11	3	6	-2	11	10	8
2013	23	53	81	52	16	53	235	101
2014	-19	-7	-31	19	-13	-7	-88	36
2015	-32	-92	-34	53	-22	-92	-100	71
2016	-50	-57	-24	44	-35	-57	-71	54
2017	17	42	55	38	11	42	159	71
2018	-24	-12	-12	16	-17	-12	-35	22
2019	-40	-10	-19	23	-27	-10	-54	31
2020	0	0	0	0	0	0	0	0

}

Historic - Current

}

(Historic - Current) / Current