

# Northern CVP Water Temperature Report

## August - 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	BSF <sup>2</sup>	JLF	BND	RDB	IGO <sup>3</sup>	LWS	DGC	NFH	Shasta Generation	Spring Creek P.P.	Keswick Total	RDD	BSF	RDB
Jul	51.9	51.0	55.0	52.9	53.3	53.9	55.5	56.7	57.6	58.6	58.6	53.0	-	-	10212	1501	12074	84.1	79.5	79.6
08/01	51.4	50.2	56.1	52.5	53.1	53.6	55.3	56.4	57.3	58.5	58.8	51.2	60.3	66.2	9154	1467	11066	83.0	77.9	78.0
08/02	51.6	50.3	56.2	52.5	53.1	53.7	55.3	56.5	57.3	58.4	59.0	51.1	60.2	65.9	8824	1574	11111	82.5	78.5	78.3
08/03	51.8	50.4	56.2	52.6	53.3	53.8	55.5	56.7	57.5	58.7	59.2	51.3	59.9	65.5	8969	1554	11111	85.0	81.4	81.1
08/04	51.8	50.4	56.2	52.9	53.5	54.1	55.7	56.9	57.8	58.9	59.4	51.4	60.5	66.3	8745	1485	11098	84.0	79.3	79.0
08/05	51.8	50.6	56.3	52.7	53.4	54.1	55.8	57.1	58.1	59.3	59.4	51.3	60.9	67.0	9194	1304	11108	81.5	76.0	75.1
08/06	51.2	50.1	56.3	52.9	53.6	54.2	55.8	57.0	57.8	59.1	59.4	51.5	60.7	66.3	8821	1514	11106	78.5	75.1	73.4
08/07	50.9	49.9	56.5	52.7	53.5	54.3	56.1	57.4	58.2	59.3	59.4	51.6	60.6	66.4	8454	1687	10901	86.5	81.1	80.6
08/08	51.0	50.0	56.4	52.2	53.0	53.7	55.6	57.1	58.0	59.4	59.3	51.5	60.5	66.5	8584	1542	10561	85.5	81.7	81.2
08/09	51.1	50.1	56.5	52.4	53.0	53.7	55.4	56.9	57.7	59.0	59.6	51.2	60.5	66.8	8469	1539	10562	90.0	85.0	84.9
08/10	51.1	50.1	56.6	52.5	53.2	53.9	55.6	57.0	57.8	59.1	59.7	51.1	60.7	67.4	8969	1786	10551	91.0	84.8	84.6
08/11	51.0	50.2	56.7	52.5	53.3	53.9	55.8	57.3	58.0	59.3	59.8	51.1	60.3	66.8	7724	1838	10261	85.5	79.5	78.7
08/12	51.1	50.1	56.7	52.7	53.4	54.0	55.8	57.2	58.0	59.2	59.4	50.9	59.2	65.0	8187	1354	10185	82.0	78.2	78.0
08/13	50.7	50.0	56.9	52.0	52.9	53.5	55.3	56.7	57.6	58.9	59.3	51.3	59.4	64.9	8988	965	10313	84.0	78.6	80.3
08/14	50.8	50.0	56.9	52.1	52.8	53.4	54.9	56.2	57.0	58.4	58.9	51.3	59.7	65.6	8340	1638	10269	88.0	82.3	84.9
08/15	50.9	50.1	56.9	52.3	53.0	53.8	55.4	56.8	57.5	58.6	59.7	51.4	60.2	66.2	7326	1851	10107	91.5	84.5	86.7
08/16	50.6	50.0	57.0	52.7	53.2	53.8	55.1	56.4	57.2	58.5	59.0	51.1	59.7	65.8	7997	1688	10036	90.0	82.0	82.5
08/17	50.4	49.5	57.1	52.2	52.7	53.1	54.4	55.6	56.3	57.1	58.0	50.8	57.9	64.0	7765	1540	9984	84.5	76.1	80.7
08/18	50.4	49.6	57.1	51.8	52.5	53.1	54.6	55.8	56.4	57.2	59.8	50.7	58.7	64.0	8205	1582	10022	92.0	85.4	87.6
08/19	50.6	49.8	57.0	51.9	52.6	53.1	54.4	55.5	56.2	57.3	58.8	50.1	58.7	64.1	7165	1363	9965	91.0	77.9	79.5
08/20	50.5	49.8	56.9	51.8	52.5	53.0	54.1	55.1	55.6	56.0	58.6	50.9	57.7	63.3	7947	1337	9460	78.0	71.9	73.0
08/21	50.7	49.7	56.8	51.9	52.5	53.0	54.1	54.9	55.3	55.6	58.4	51.2	59.5	64.6	8191	1287	9269	77.5	68.9	67.6
08/22	50.8	49.9	56.8	52.1	52.6	53.0	54.2	55.2	55.7	56.0	58.2	51.2	59.0	65.3	7063	1286	8962	79.5	72.3	74.3
08/23	50.9	49.9	56.8	52.3	52.8	53.2	54.6	55.6	56.1	56.5	58.4	50.9	57.6	63.5	6751	1643	9065	82.5	75.3	76.3
08/24	50.8	49.8	56.9	52.4	52.9	53.3	54.9	56.2	56.9	57.5	57.8	50.3	56.4	61.6	6449	1771	8736	85.0	78.3	78.7
08/25	50.6	49.8	56.8	52.3	52.8	53.2	54.6	55.9	56.6	57.7	58.0	50.2	56.2	61.3	6462	1726	8518	80.5	75.7	77.0
08/26	50.8	49.8	56.8	52.3	52.9	53.3	54.7	55.9	56.5	57.5	58.0	50.1	56.6	61.8	6069	1559	8289	81.0	75.7	76.3
08/27	50.9	50.1	56.8	52.4	53.0	53.6	55.2	56.4	57.1	58.1	58.8	50.4	57.0	62.1	6211	1518	8013	83.0	77.9	77.5
08/28	50.7	49.9	56.7	52.6	53.4	54.1	55.8	57.2	58.0	59.1	59.0	50.3	57.7	63.0	6057	1538	7836	87.0	78.2	77.9
08/29	50.7	49.7	56.6	52.6	53.3	54.1	55.6	57.0	57.9	59.2	58.8	50.6	57.5	63.1	5712	1576	7904	81.5	75.6	75.4
08/30	50.7	49.6	56.5	52.7	53.5	54.3	55.8	57.0	57.5	58.5	58.8	50.6	57.7	62.9	6297	1253	7877	84.5	76.8	77.4
08/31	50.5	49.6	56.6	52.6	53.3	54.0	55.9	57.4	58.3	59.3	58.7	50.6	57.9	63.3	5432	1672	7552	83.0	78.5	80.3
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

Total CFS	238521	47437	301798
Total AF	473097	94089	598604

**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 3 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.

DATE	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	↓	↑
08/01	64	101	82.5	63	102	82.5	64	102	83.0	65	101	83.0	65	100	82.5	64	96	80.0	63	98	80.5	65	99	82.0	67	97	82.0	66	96	81.0	67	95	81.0	63	96	79.5		
08/02	63	103	83.0	65	102	83.5	65	101	83.0	65	100	82.5	63	95	79.0	63	97	80.0	64	98	81.0	64	101	82.5	67	100	83.5	67	101	84.0	69	99	84.0	65	98	81.5		
08/03	64	101	82.5	67	101	84.0	65	101	83.0	63	94	78.5	62	95	78.5	64	99	81.5	64	101	82.5	67	103	85.0	66	101	83.5	67	99	83.0	68	97	82.5	64	96	80.0		
08/04	67	103	85.0	68	101	84.5	63	94	78.5	61	94	77.5	64	99	81.5	66	104	85.0	68	105	86.5	68	104	86.0	68	99	83.5	66	99	82.5	66	97	81.5	64	97	80.5		
08/05	67	101	84.0	69	93	81.0	59	93	76.0	63	99	81.0	65	104	84.5	68	107	87.5	69	105	87.0	67	101	84.0	67	96	81.5	65	94	79.5	65	95	80.0	64	97	80.5		
08/06	69	94	81.5	64	94	79.0	64	100	82.0	65	104	84.5	67	107	87.0	69	106	87.5	68	100	84.0	65	98	81.5	65	97	81.0	65	96	80.5	66	96	81.0	64	96	80.0		
08/07	63	94	78.5	72	100	86.0	65	104	84.5	68	107	87.5	69	106	87.5	68	100	84.0	65	98	81.5	64	99	81.5	67	96	81.5	64	99	81.5	64	97	80.5	65	98	81.5		
08/08	71	102	86.5	71	104	87.5	67	107	87.0	70	107	88.5	68	101	84.5	65	99	82.0	64	100	82.0	65	100	82.5	66	103	84.5	67	102	84.5	66	99	82.5	64	96	80.0		
08/09	66	105	85.5	72	107	89.5	70	108	89.0	68	99	83.5	65	99	82.0	63	101	82.0	65	103	84.0	67	102	84.5	65	100	82.5	65	100	82.5	65	98	81.5	63	96	79.5		
08/10	70	110	90.0	74	109	91.5	69	100	84.5	65	100	82.5	64	102	83.0	65	105	85.0	67	106	86.5	65	106	85.5	63	99	81.0	65	102	83.5	65	98	81.5	64	98	81.0		
08/11	73	109	91.0	74	100	87.0	64	97	80.5	63	100	81.5	65	106	85.5	70	105	87.5	72	103	87.5	68	102	85.0	68	108	88.0	70	102	86.0	69	99	84.0	64	98	81.0		
08/12	74	97	85.5	69	96	82.5	62	100	81.0	65	105	85.0	70	108	89.0	70	104	87.0	69	103	86.0	67	103	85.0	64	97	80.5	62	99	80.5	64	96	80.0	63	95	79.0		
08/13	67	97	82.0	68	101	84.5	64	106	85.0	70	109	89.5	72	105	88.5	73	107	90.0	71	109	90.0	71	107	89.0	72	104	88.0	67	100	83.5	65	94	79.5	63	93	78.0		
08/14	66	102	84.0	69	106	87.5	73	108	90.5	73	106	89.5	76	106	91.0	74	107	90.5	76	107	91.5	69	105	87.0	67	102	84.5	65	98	81.5	64	94	79.0	63	94	78.5		
08/15	67	109	88.0	73	111	92.0	74	108	91.0	74	107	90.5	75	108	91.5	70	106	88.0	67	105	86.0	66	102	84.0	67	99	83.0	66	101	83.5	67	100	83.5	65	99	82.0		
08/16	72	111	91.5	77	105	91.0	74	109	91.5	74	108	91.0	72	106	89.0	66	102	84.0	65	103	84.0	66	103	84.5	67	103	85.0	68	101	84.5	69	99	84.0	65	97	81.0		
08/17	76	104	90.0	76	103	89.5	74	108	91.0	70	104	87.0	63	100	81.5	64	104	84.0	66	104	85.0	67	104	85.5	67	104	85.5	65	104	84.5	65	98	81.5	63	96	79.5		
08/18	75	94	84.5	75	105	90.0	69	101	85.0	62	98	80.0	63	100	81.5	65	103	84.0	67	104	85.5	67	105	86.0	67	101	84.0	64	101	82.5	65	98	81.5	64	98	81.0		
08/19	75	109	92.0	75	102	88.5	62	97	79.5	63	97	80.0	65	100	82.5	66	101	83.5	66	101	83.5	66	101	83.5	68	98	83.0	66	100	83.0	66	98	82.0	63	98	80.5		
08/20	73	109	91.0	63	98	80.5	64	98	81.0	66	101	83.5	66	101	83.5	67	98	82.5	65	97	81.0	65	99	82.0	64	98	81.0	63	101	82.0	64	98	81.0	61	96	78.5		
08/21	61	95	78.0	63	98	80.5	65	101	83.0	65	101	83.0	67	100	83.5	65	96	80.5	64	98	81.0	65	100	82.5	64	99	81.5	64	98	81.0	63	96	79.5	61	95	78.0		
08/22	63	92	77.5	65	97	81.0	65	98	81.5	66	98	82.0	64	97	80.5	65	98	81.5	64	101	82.5	66	101	83.5	65	99	82.0	63	93	78.0	62	93	77.5	60	95	77.5		
08/23	64	95	79.5	67	99	83.0	68	98	83.0	66	98	82.0	67	96	81.5	65	100	82.5	65	101	83.0	66	103	84.5	65	99	82.0	63	96	79.5	63	95	79.0	62	96	79.0		
08/24	67	98	82.5	75	98	86.5	65	97	81.0	65	97	81.0	65	98	81.5	66	102	84.0	66	101	83.5	65	99	82.0	64	101	82.5	64	104	84.0	66	101	83.5	65	99	82.0		
08/25	73	97	85.0	68	97	82.5	65	96	80.5	65	98	81.5	66	102	84.0	66	101	83.5	66	100	83.0	65	100	82.5	65	103	84.0	63	105	84.0	64	99	81.5	62	97	79.5		
08/26	67	94	80.5	69	95	82.0	65	98	81.5	65	103	84.0	66	98	82.0	65	100	82.5	66	99	82.5	64	98	81.0	63	102	82.5	62	102	82.0	64	99	81.5	63	98	80.5		
08/27	68	94	81.0	68	97	82.5	65	104	84.5	66	99	82.5	63	97	80.0	63	98	80.5	63	98	80.5	63	99	81.0	66	103	84.5	65	104	84.5	64	97	80.5	62	95	78.5		
08/28	67	99	83.0	66	104	85.0	66	99	82.5	65	98	81.5	65	101	83.0	65	104	84.5	65	106	85.5	66	104	85.0	66	102	84.0	65	103	84.0	66	101	83.5	63	97	80.0		
08/29	65	109	87.0	68	102	85.0	64	102	83.0	66	104	85.0	67	106	86.5	68	103	85.5	67	105	86.0	67	101	84.0	66	101	83.5	66	103	84.5	67	102	84.5	65	100	82.5		
08/30	67	96	81.5	65	99	82.0	66	100	83.0	66	103	84.5	64	100	82.0	65	100	82.5	66	101	83.5	66	101	83.5	69	108	88.5	68	108	88.0	69	102	85.5	63	98	80.5		
08/31	65	104	84.5	62	103	82.5	67	107	87.0	64	103	83.5	65	102	83.5	65	101	83.0	66	106	86.0	68	109	88.5	71	108	89.5	69	107	88.0	68	100	84.0	62	95	78.5		

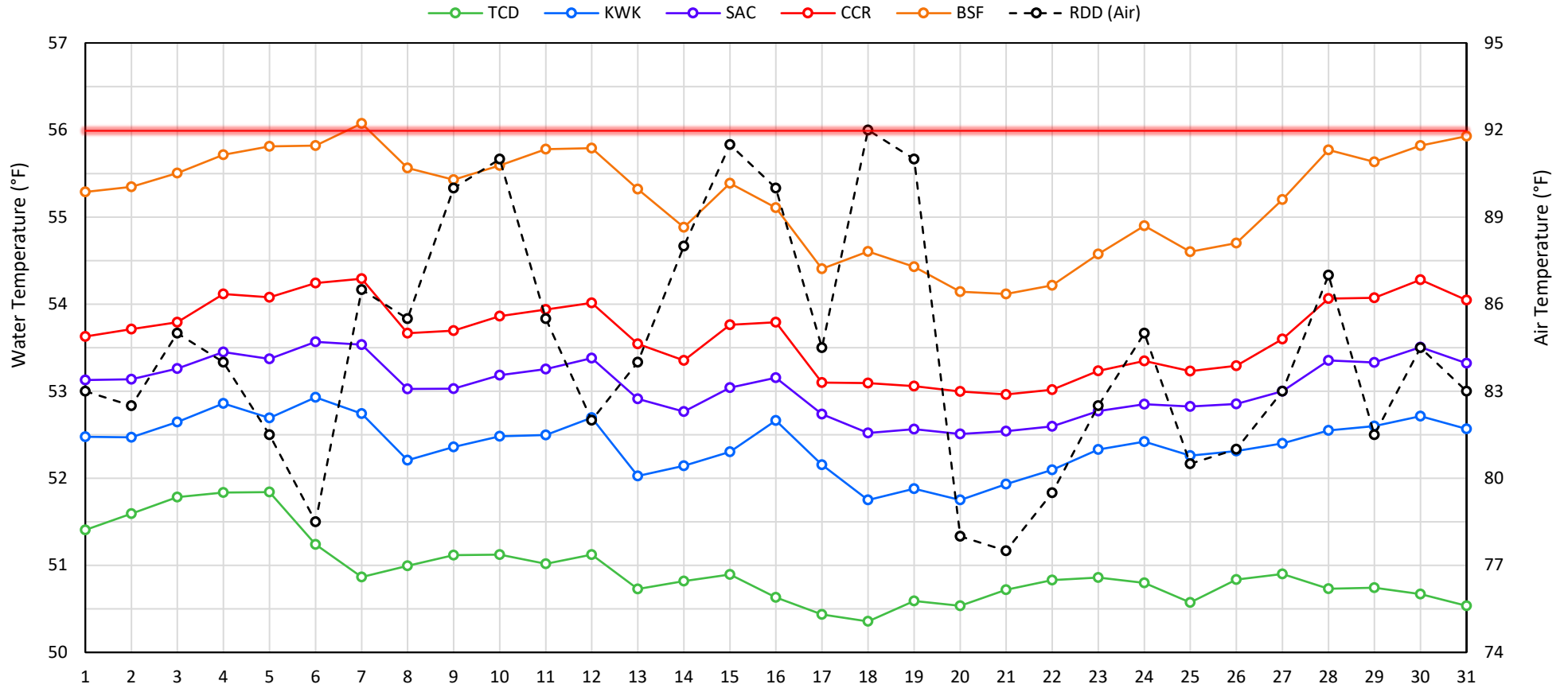
[Web Links](#)

[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
Trinity	DGC	56	09/15/2020	10/01/2020
Trinity	NFH	56	10/01/2020	12/31/2020

### Notes

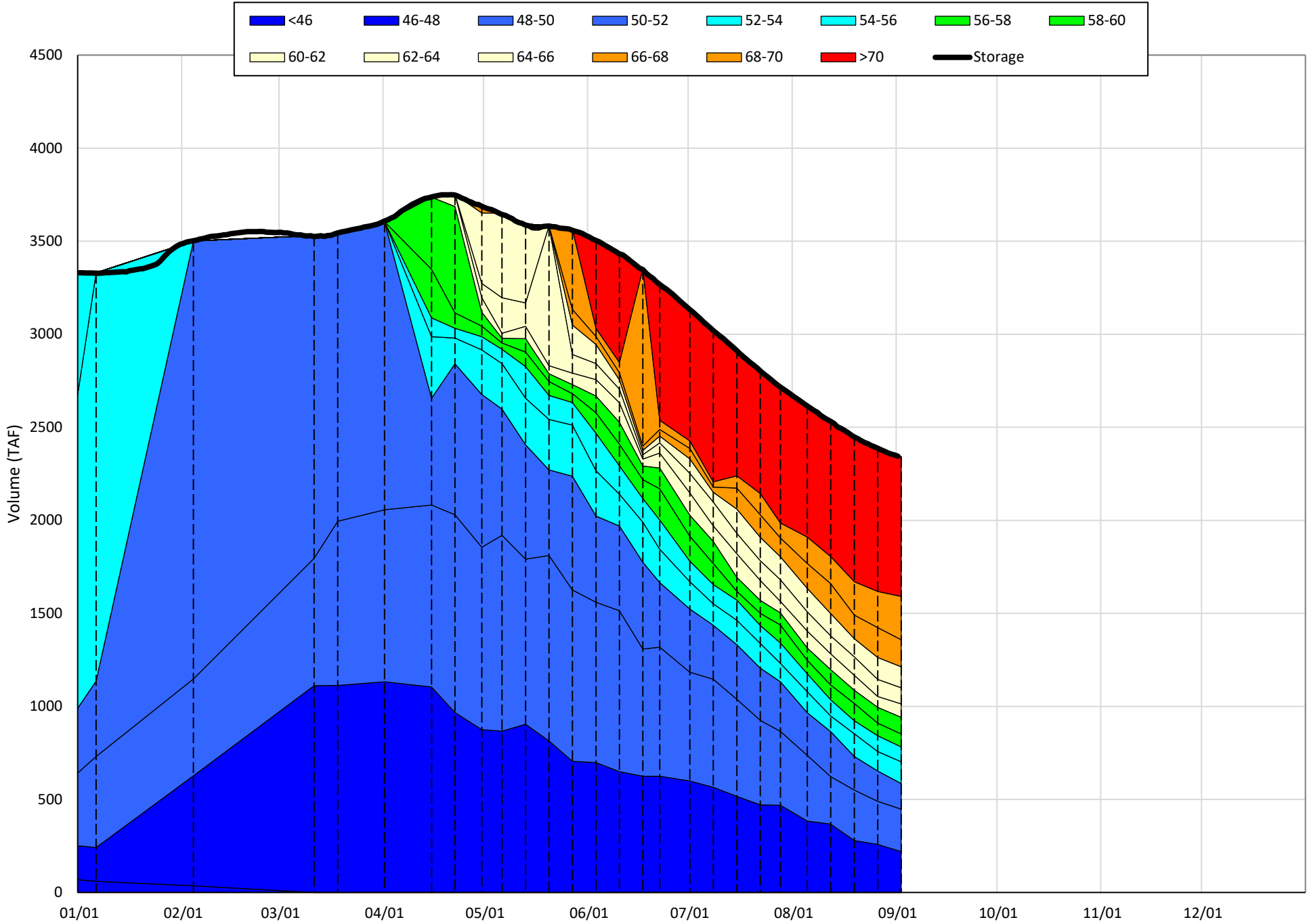
<sup>1</sup> Distances are approximate

# Shasta Lake Isothermobaths & Cold Water Pool Statistics

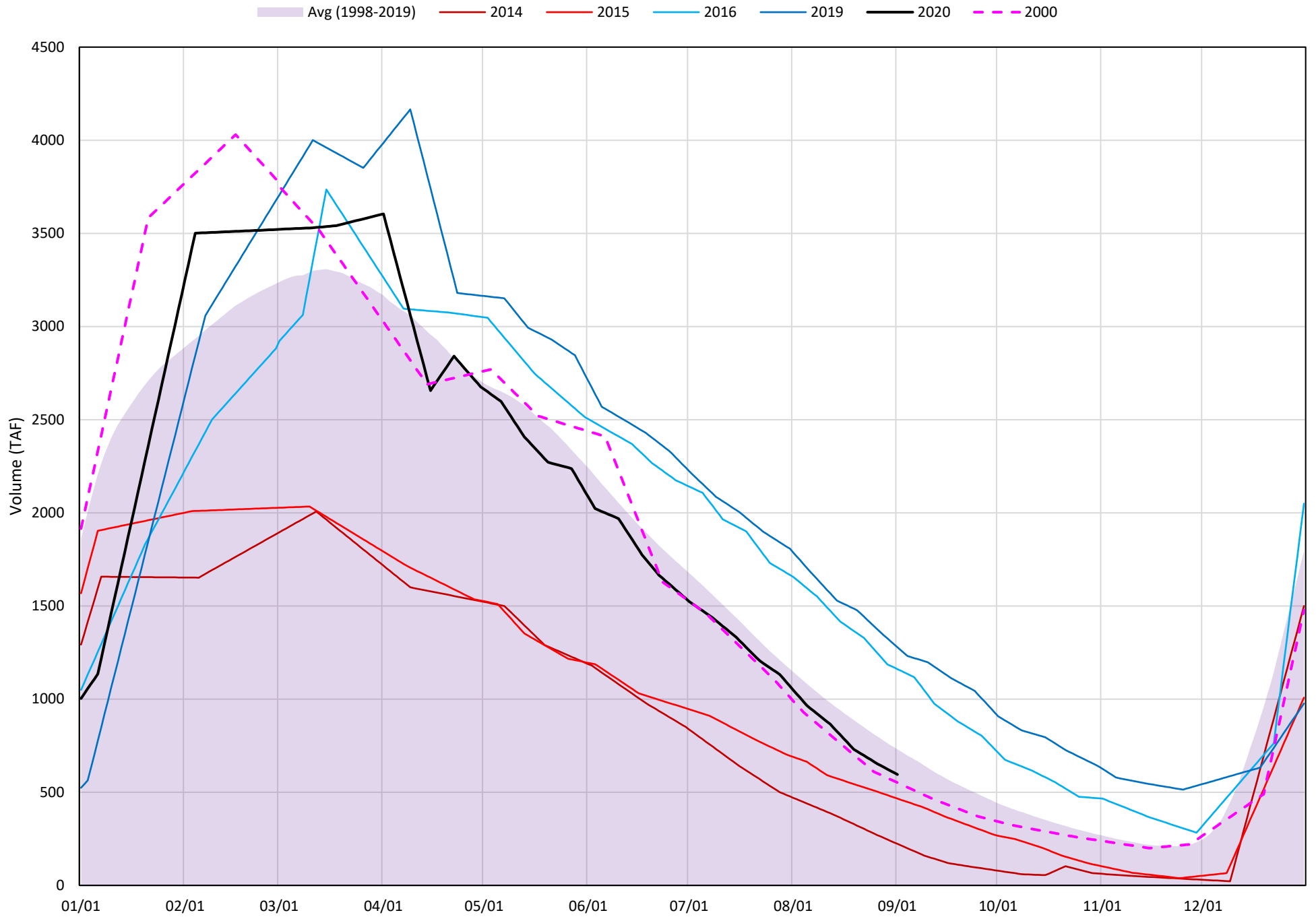
## 2020

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

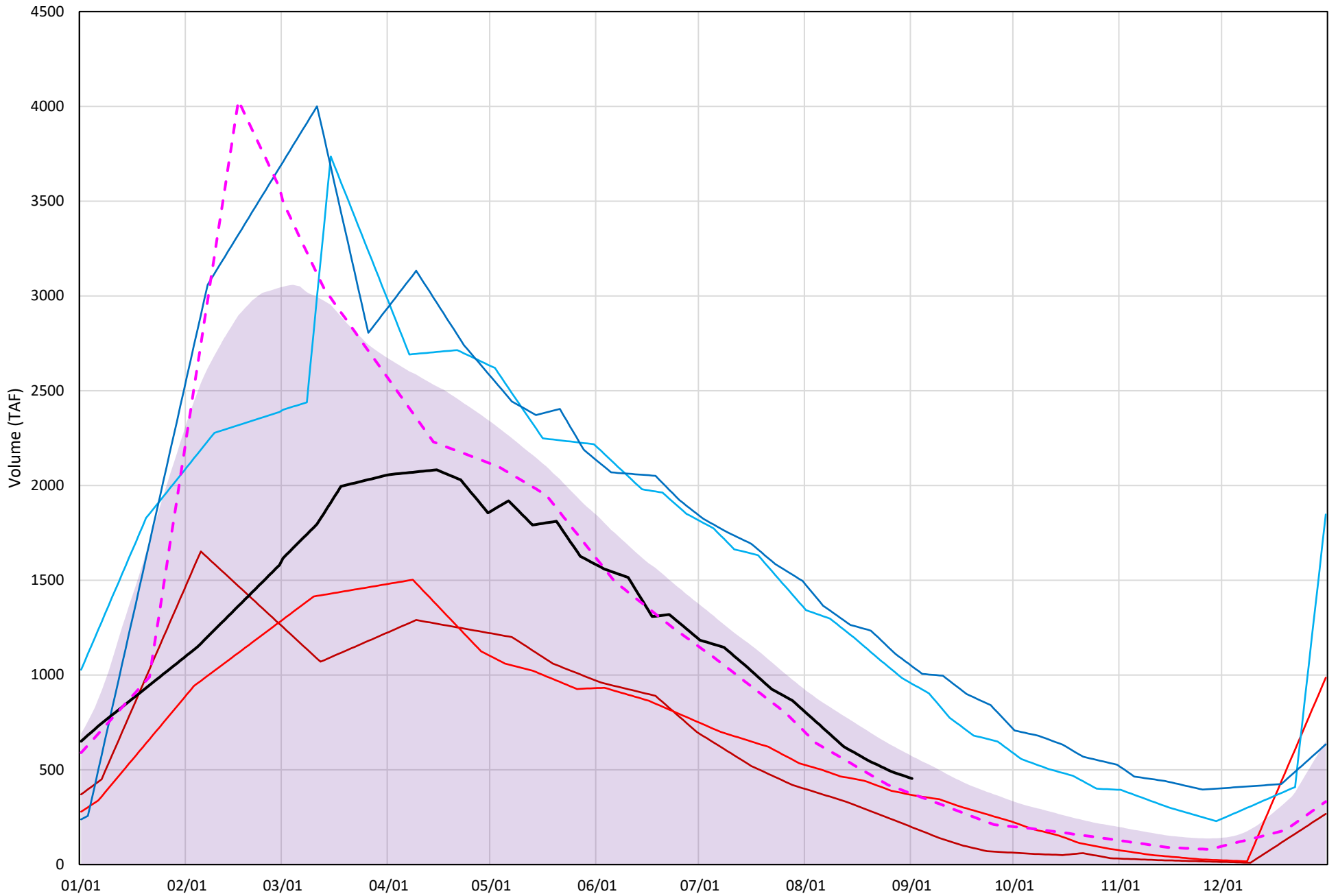


# Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$



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

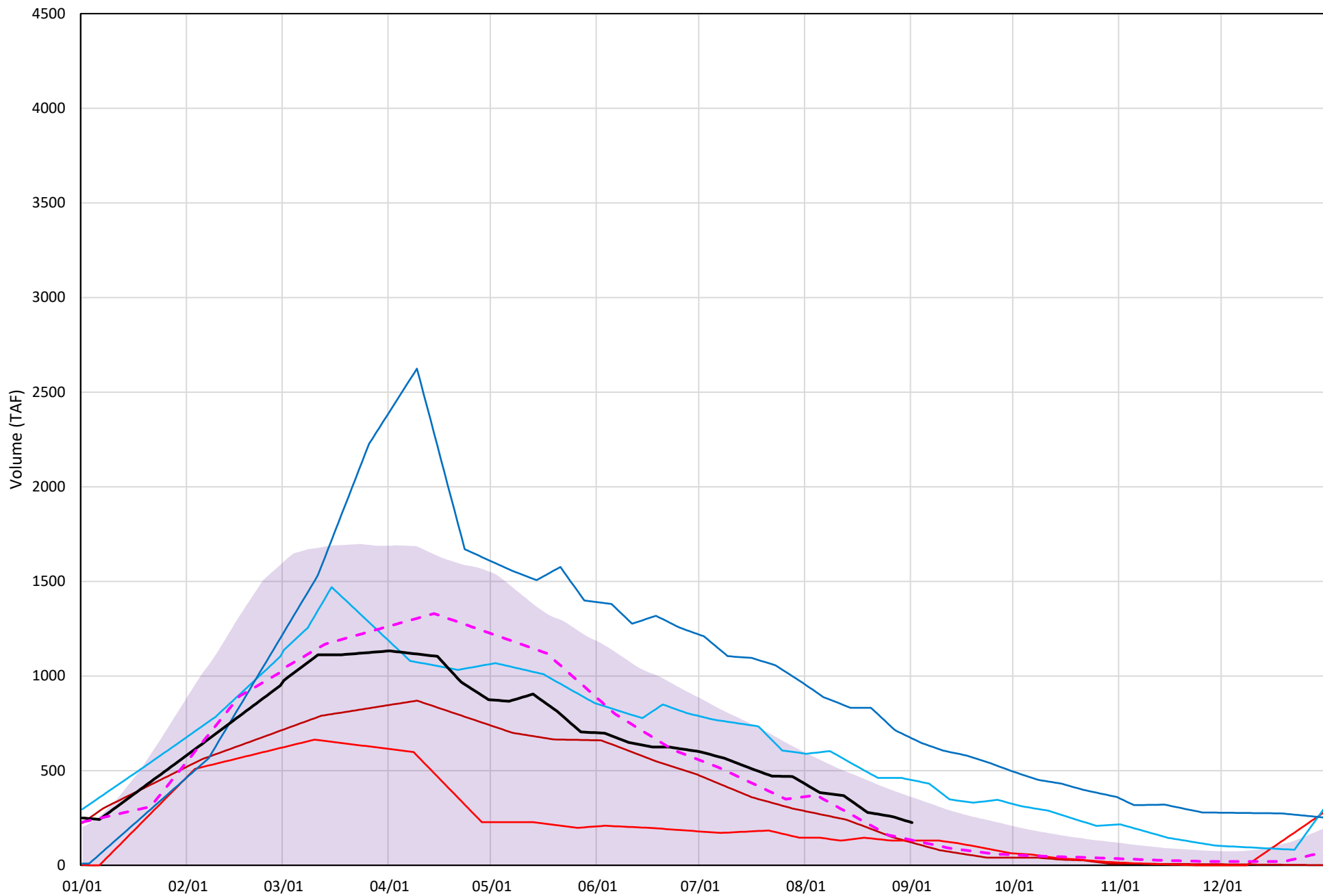
Avg (1998-2019) 2014 2015 2016 2019 2020 2000





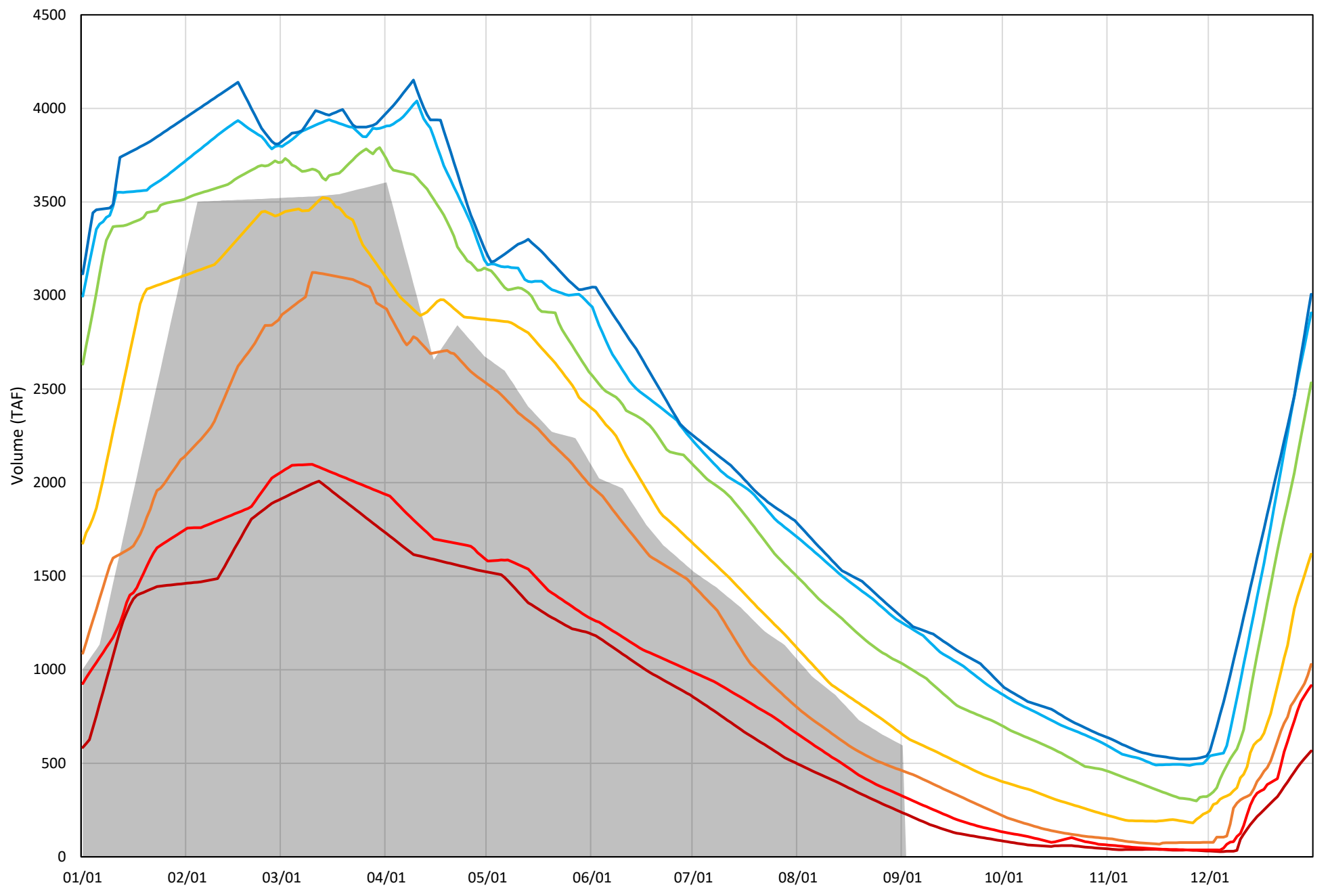
# Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

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

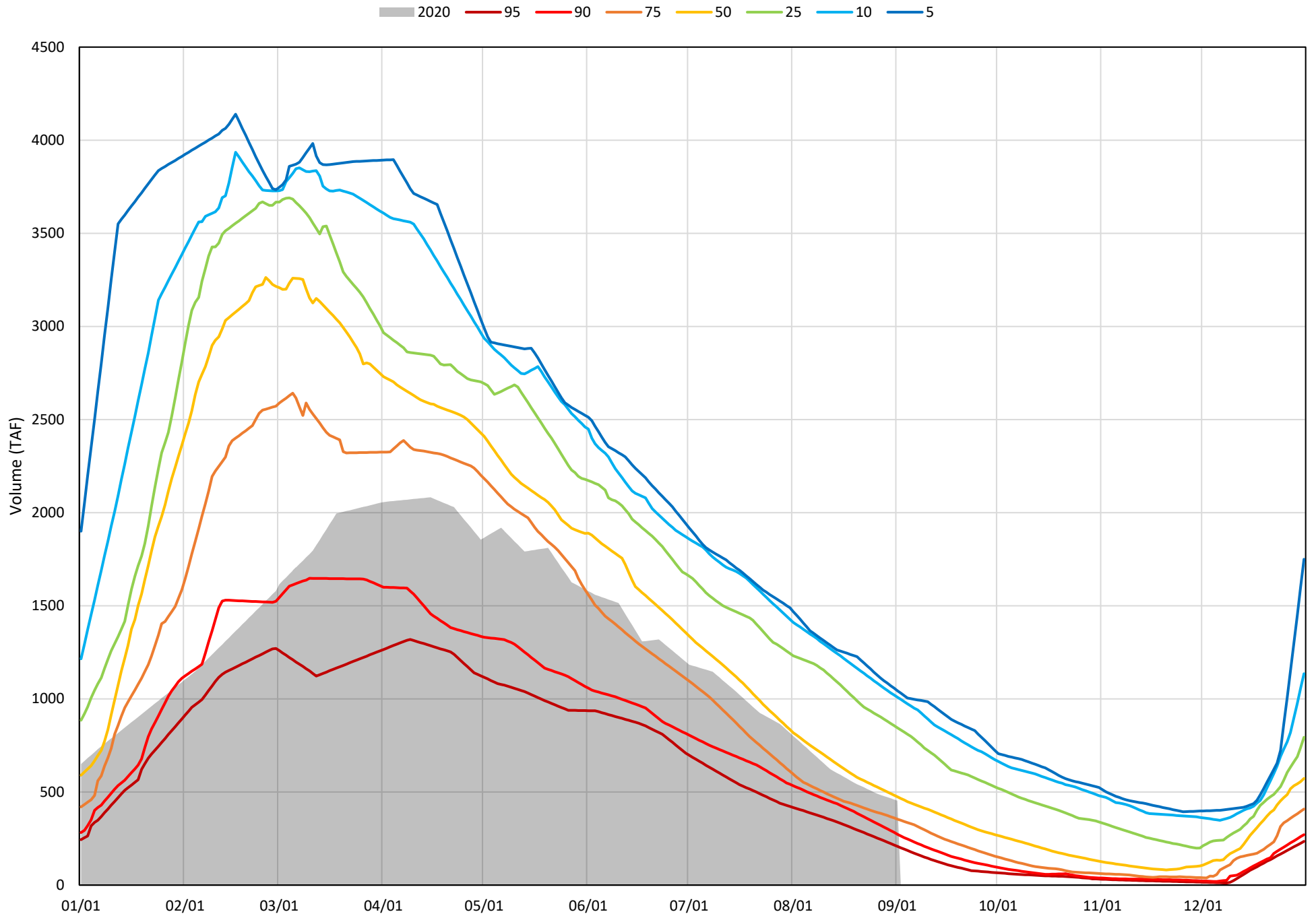


Shasta Lake Cold Water Pool Volume  $\leq 52^{\circ}\text{F}$  - Percent Exceedances (1998-2019)

2020 95 90 75 50 25 10 5

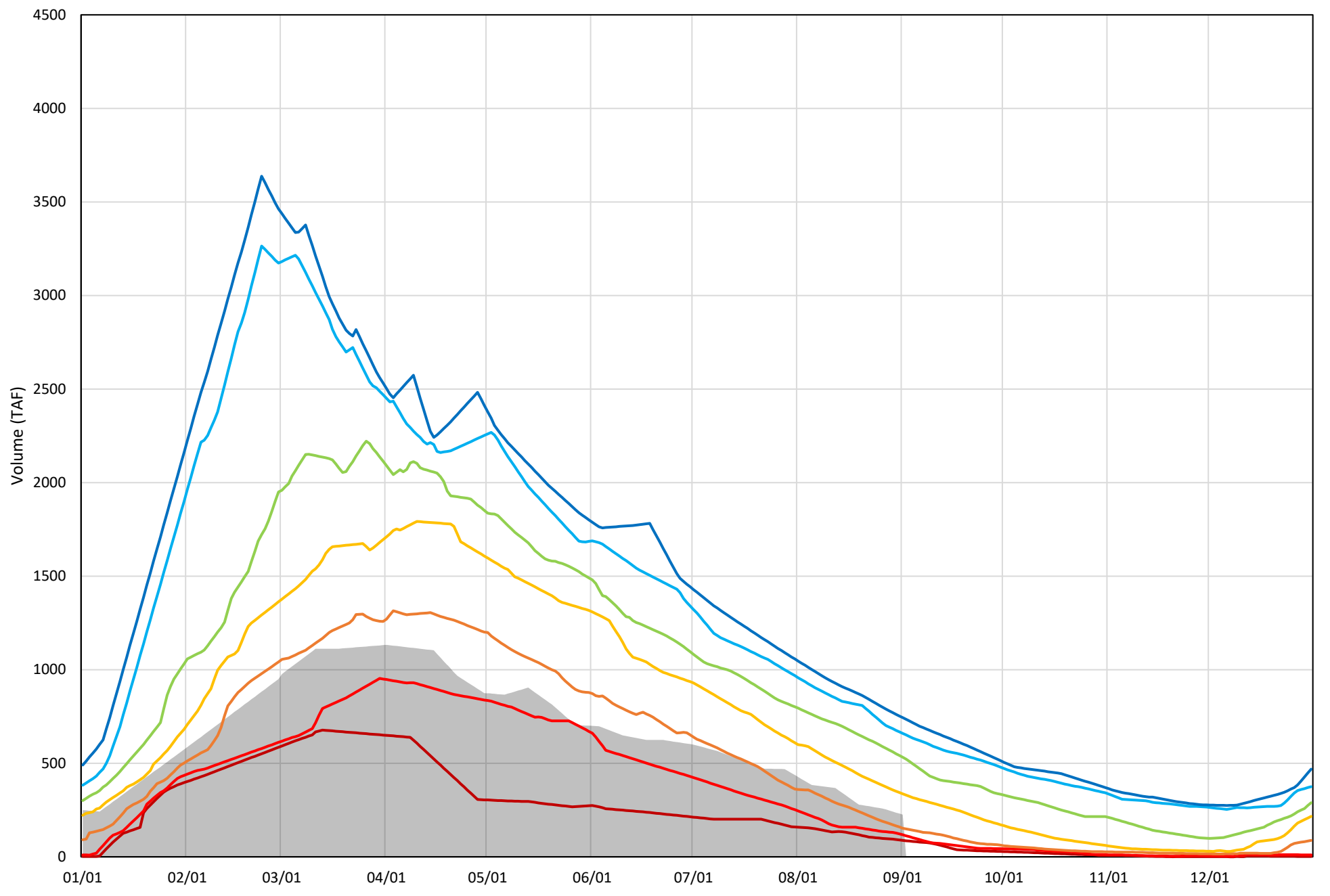


Shasta Lake Cold Water Pool Volume  $\leq 50^{\circ}\text{F}$  - Percent Exceedances (1998-2019)



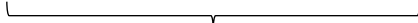
Shasta Lake Cold Water Pool Volume  $\leq 48^{\circ}\text{F}$  - Percent Exceedances (1998-2019)

2020 95 90 75 50 25 10 5

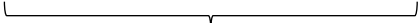


### Shasta Lake Cold Water Pool Comparison by Year (for Specified Date)

Sep-02 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	9	-117	-109	78	2	-26	-48	25
1999	394	382	408	395	66	84	181	111
2000	-44	-81	-93	72	-7	-18	-41	22
2001	-97	-32	104	78	-16	-7	46	23
2002	186	183	241	203	31	40	107	60
2003	106	-94	-142	114	18	-21	-63	34
2004	-230	-169	-41	147	-39	-37	-18	31
2005	-165	-154	-65	128	-28	-34	-29	30
2006	215	166	198	193	36	37	88	53
2007	-103	-20	113	78	-17	-4	50	24
2008	-289	-185	3	159	-49	-41	1	30
2009	-155	-74	75	101	-26	-16	33	25
2010	560	417	310	429	94	92	137	108
2011	676	579	531	595	114	127	236	159
2012	328	329	306	321	55	72	136	88
2013	-3	60	170	78	-1	13	75	30
2014	-372	-257	-105	245	-63	-57	-47	55
2015	-129	-87	-95	104	-22	-19	-42	28
2016	566	500	225	430	95	110	100	102
2017	599	481	371	484	101	106	164	124
2018	238	183	110	177	40	40	49	43
2019	683	592	445	573	115	130	197	148
2020	0	0	0	0	0	0	0	0



Historic - Current



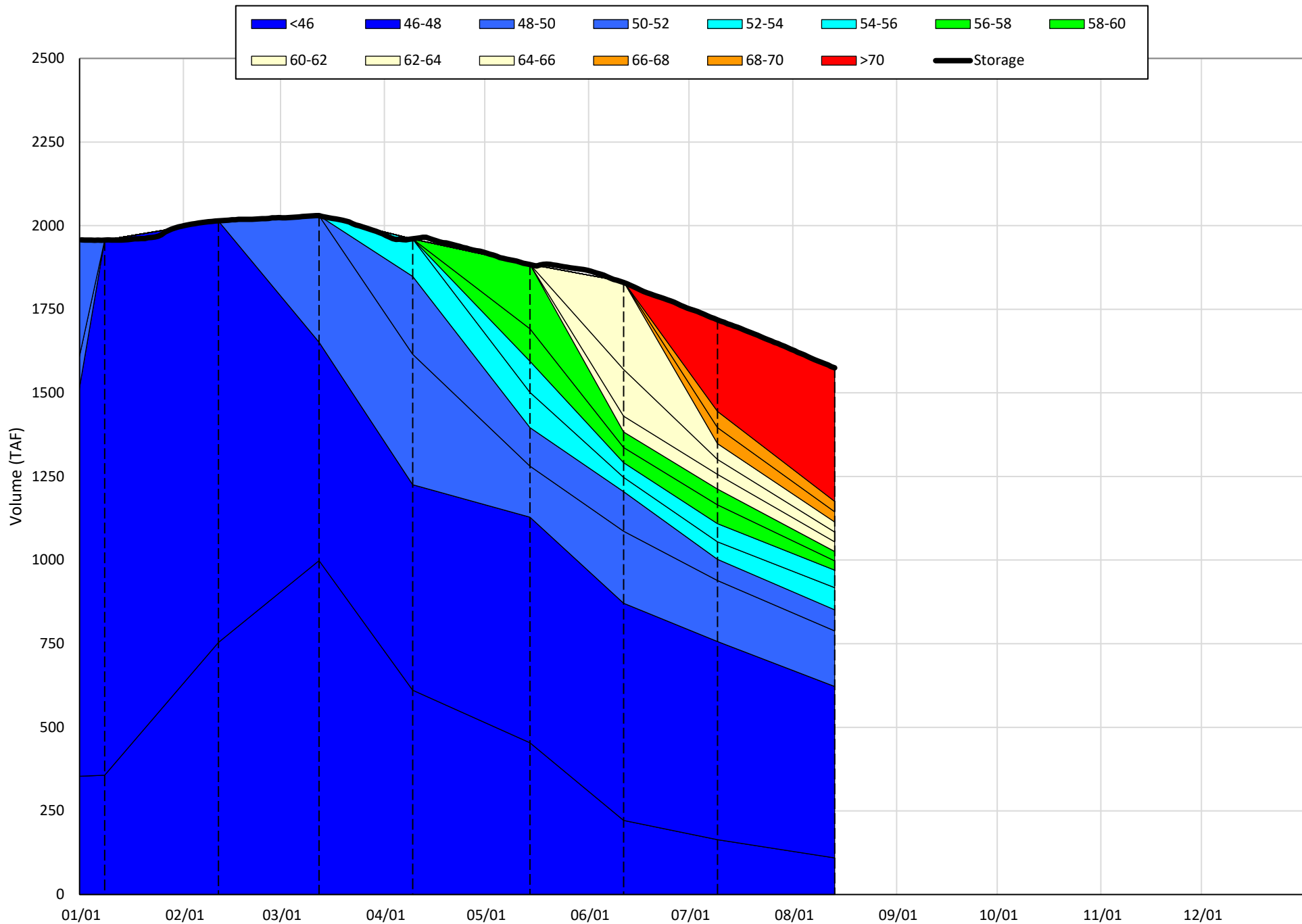
(Historic - Current) / Current

# Trinity Lake Isothermobaths & Cold Water Pool Statistics

## 2020

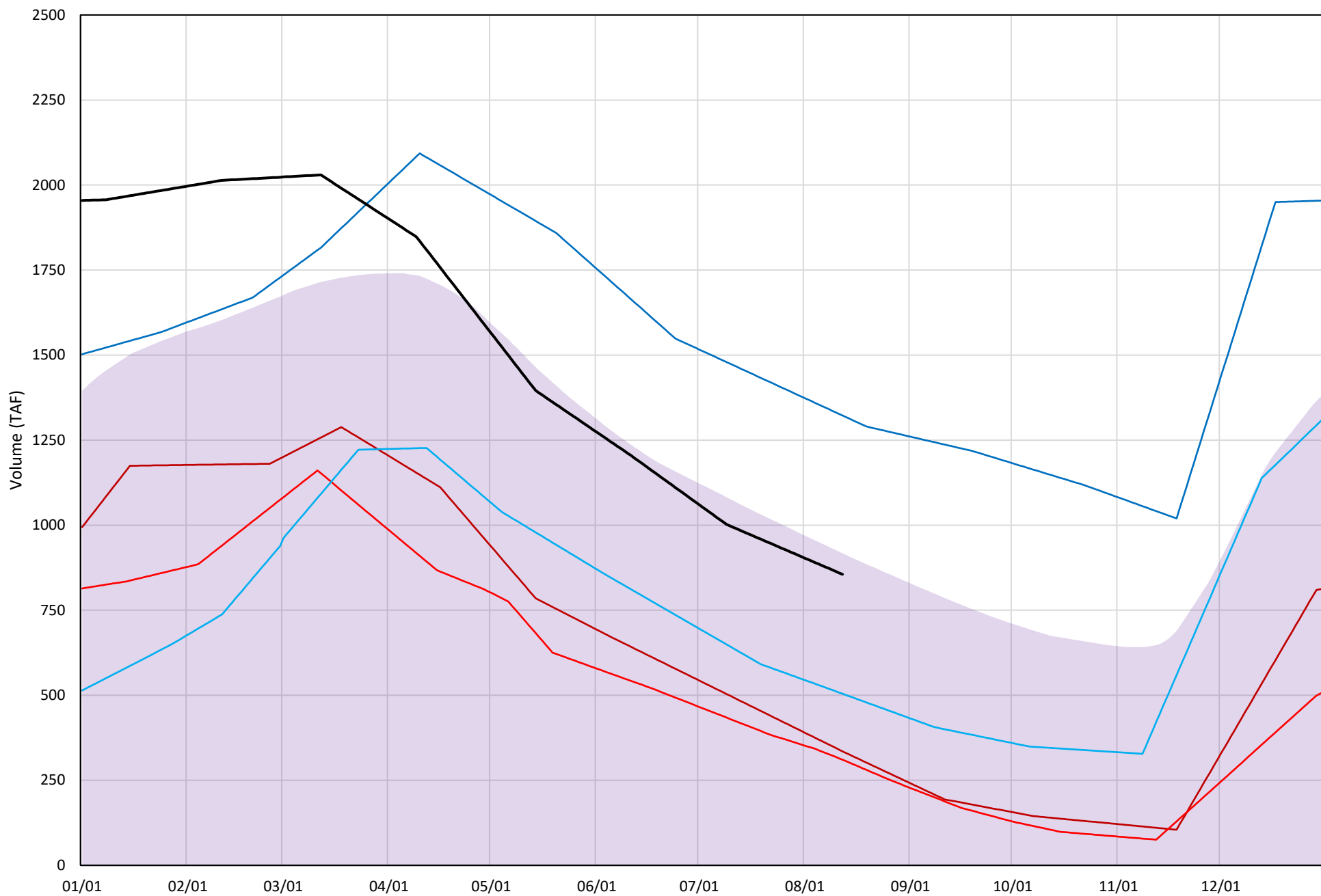
Page	Description
15	- Trinity Lake Isothermobaths Plot
16	- Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$
17	- Trinity Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$
18	- Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$
19	- Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - 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

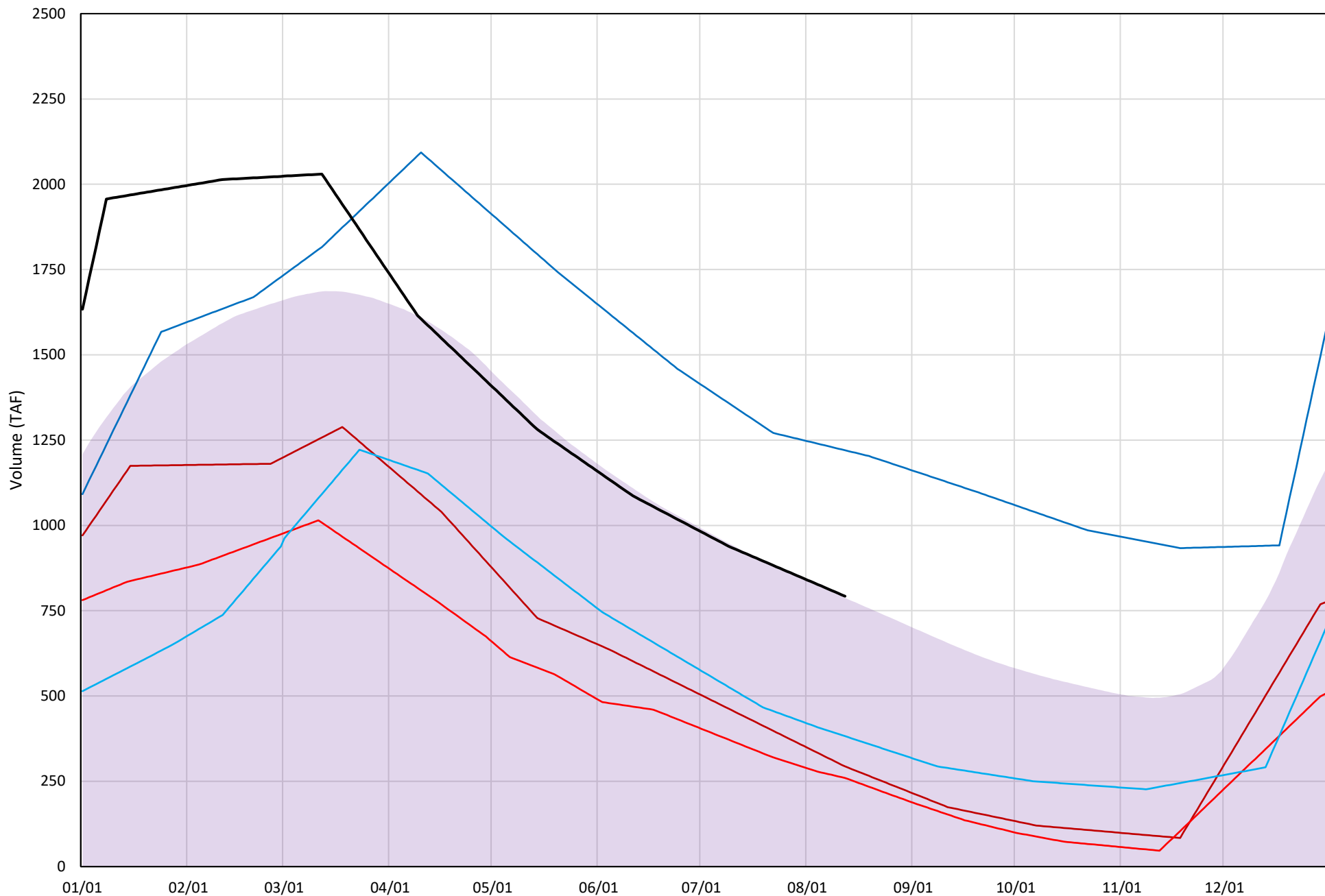
Avg (2000-2019) 2014 2015 2016 2019 2020





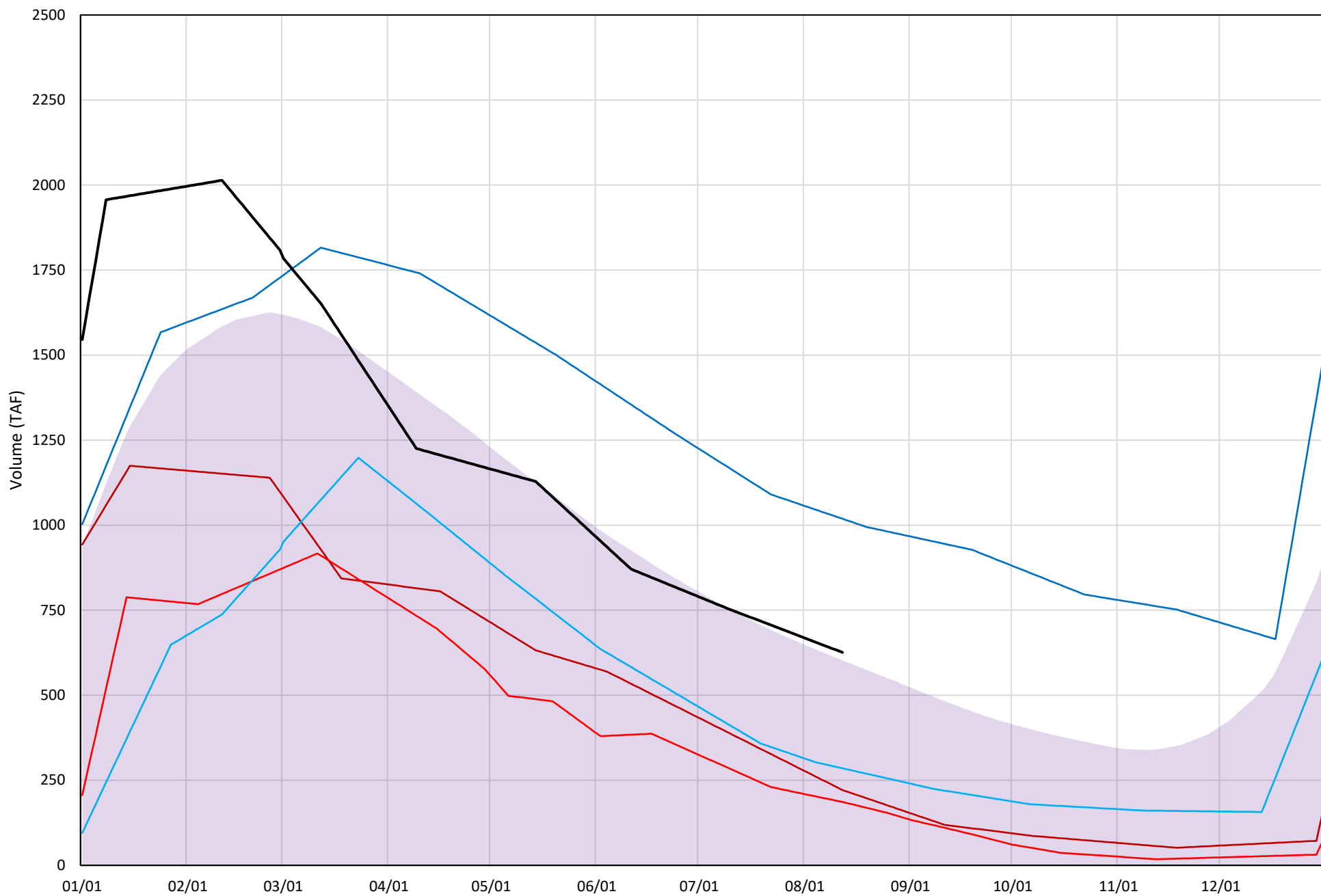
# Trinity Lake Cold Water Pool Volume ≤50°F

Avg (2000-2019) 2014 2015 2016 2019 2020

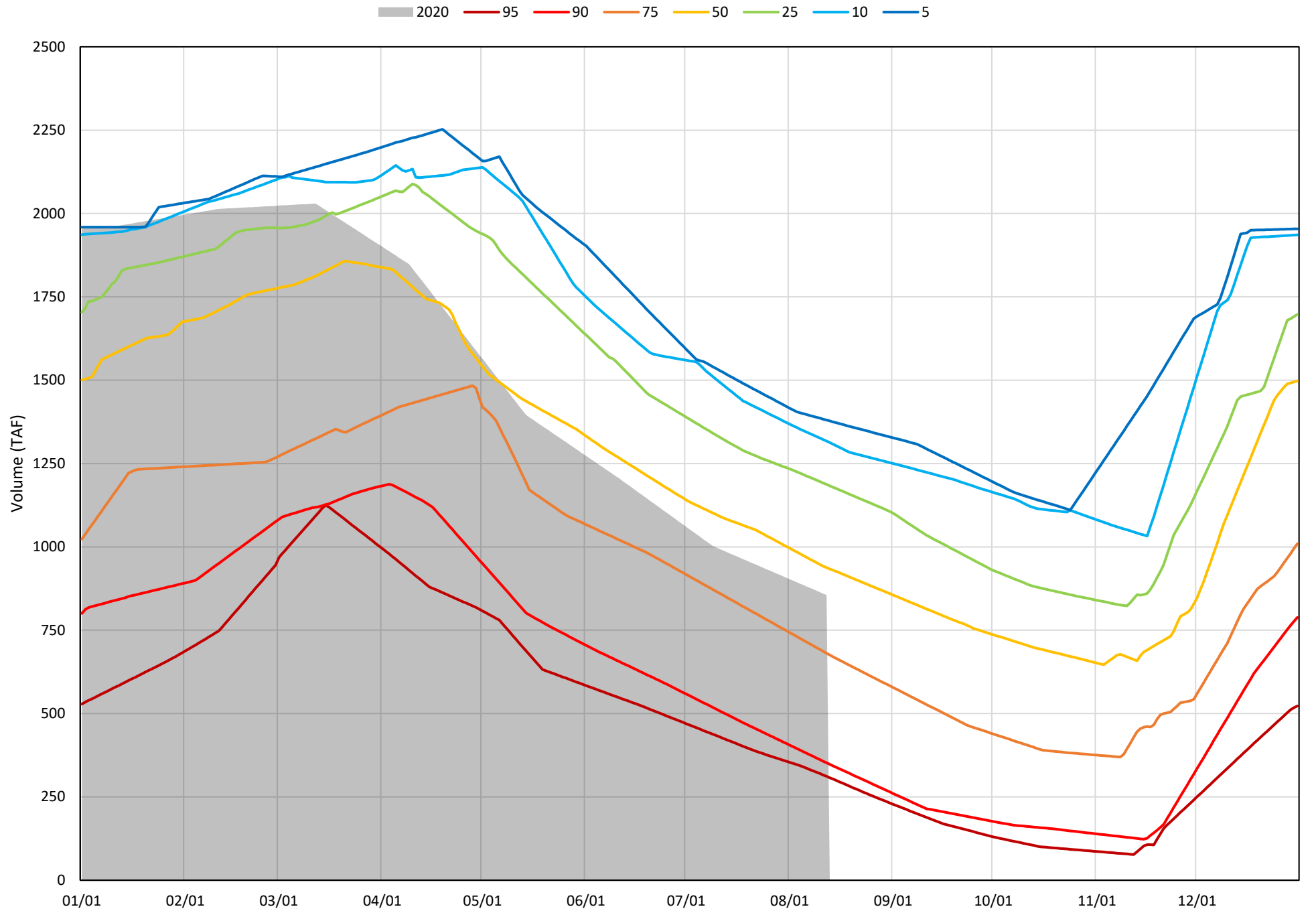


# Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

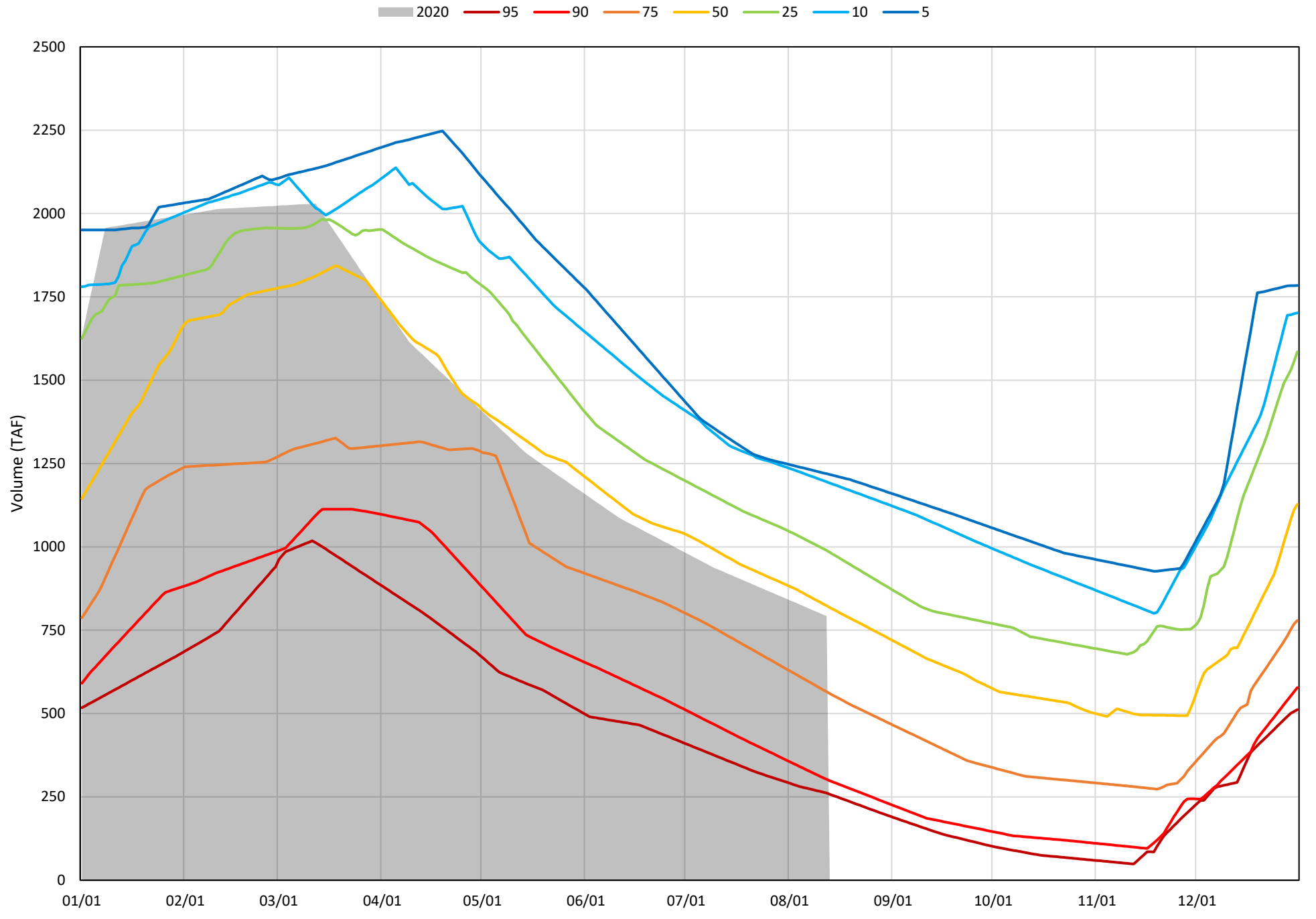
Avg (2000-2019) 2014 2015 2016 2019 2020



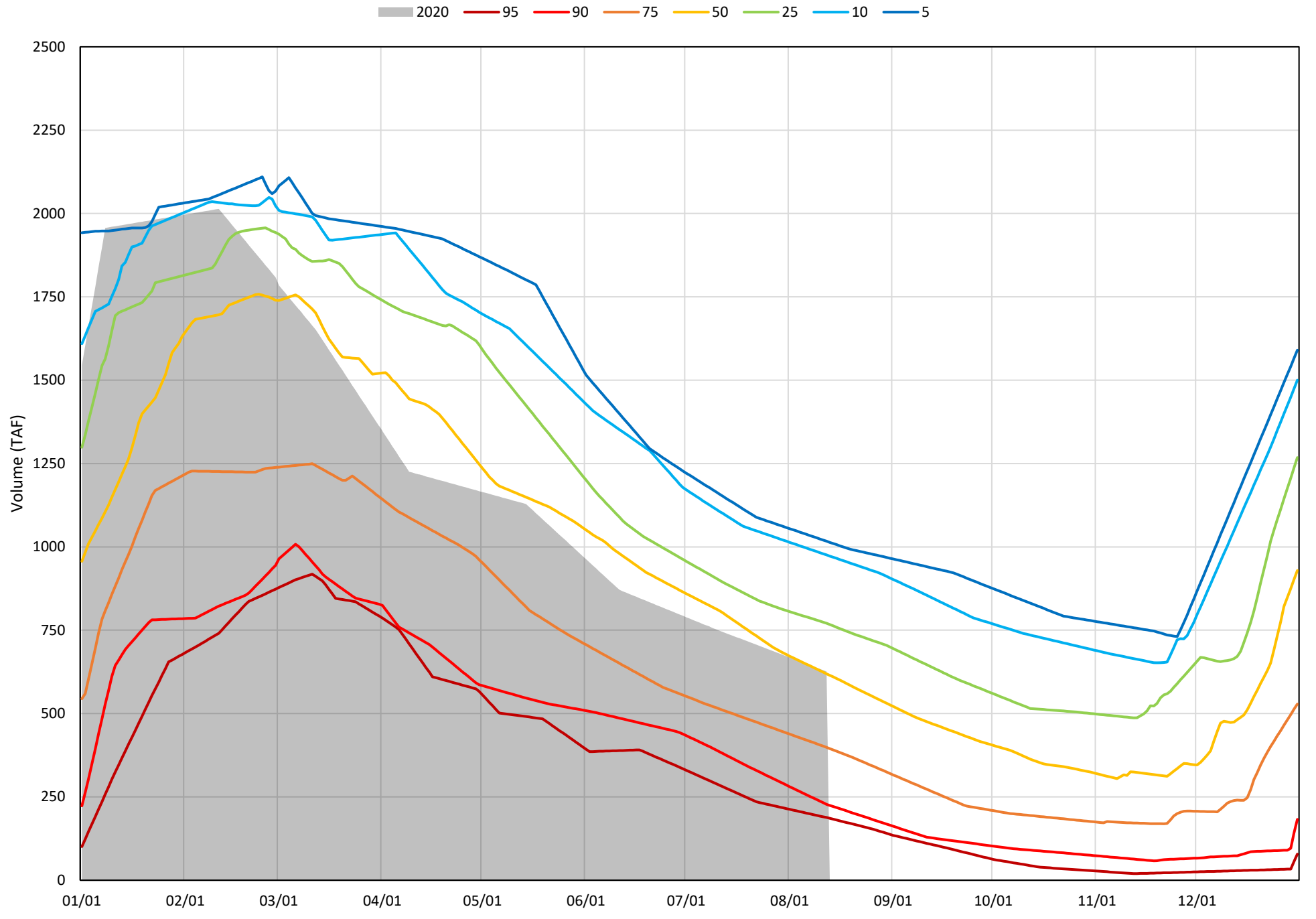
Trinity Lake Cold Water Pool Volume ≤52°F - Percent Exceedances (2000-2019)



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)

Aug-13 2020	Δ TAF				% Δ			
	≤52°	≤50°	≤48°	Abs. Avg.	≤52°	≤50°	≤48°	Abs. Avg.
2000	171	47	-9	76	20	6	-1	9
2001	34	-18	-4	19	4	-2	-1	2
2002	44	14	52	37	5	2	8	5
2003	418	218	126	254	49	28	20	32
2004	74	-29	-92	65	9	-4	-15	9
2005	261	134	-53	149	30	17	-8	19
2006	404	295	190	296	47	37	30	38
2007	91	66	108	88	11	8	17	12
2008	-197	-259	-250	235	-23	-33	-40	32
2009	-285	-317	-301	301	-33	-40	-48	40
2010	63	-47	-161	90	7	-6	-26	13
2011	528	409	298	412	62	52	48	54
2012	355	341	355	351	42	43	57	47
2013	-107	-131	-113	117	-13	-17	-18	16
2014	-520	-499	-405	475	-61	-63	-65	63
2015	-545	-533	-440	506	-64	-67	-70	67
2016	-351	-410	-341	367	-41	-52	-54	49
2017	195	73	28	99	23	9	4	12
2018	142	117	151	137	17	15	24	19
2019	467	428	393	429	55	54	63	57
2020	0	0	0	0	0	0	0	0

}

Historic - Current

}

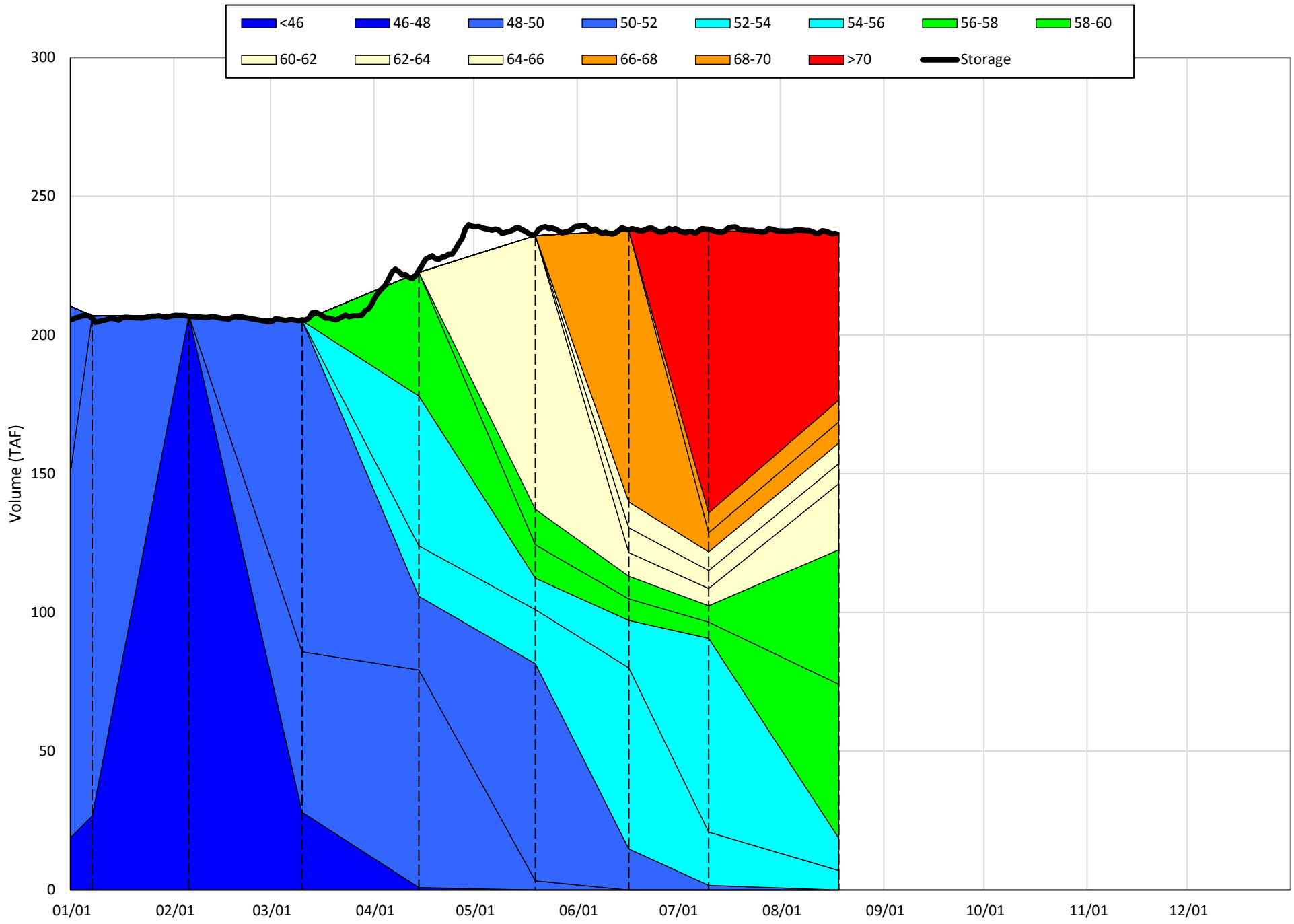
(Historic - Current) / Current

# 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

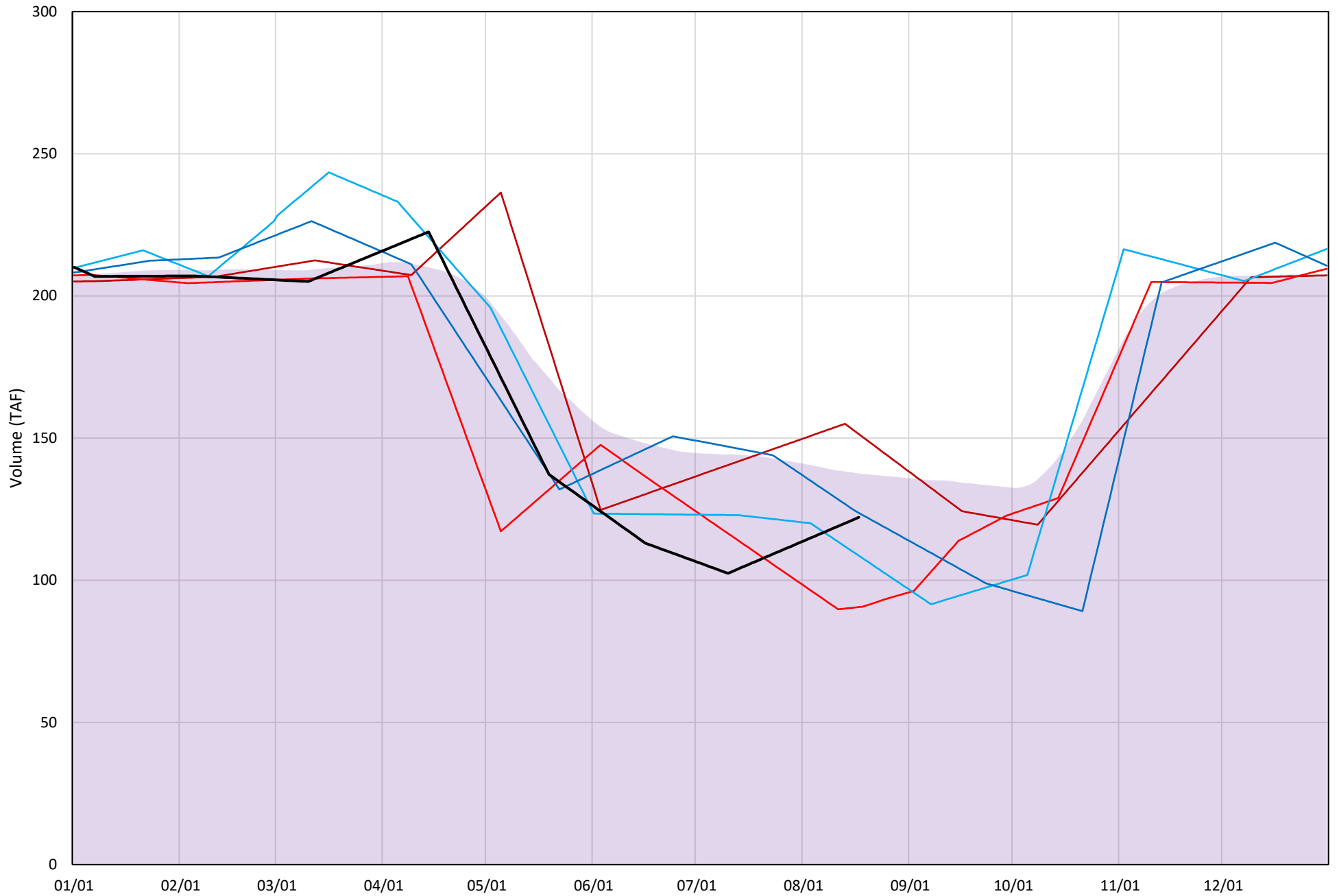
# Whiskeytown Lake Isothermobaths Plot - 2020





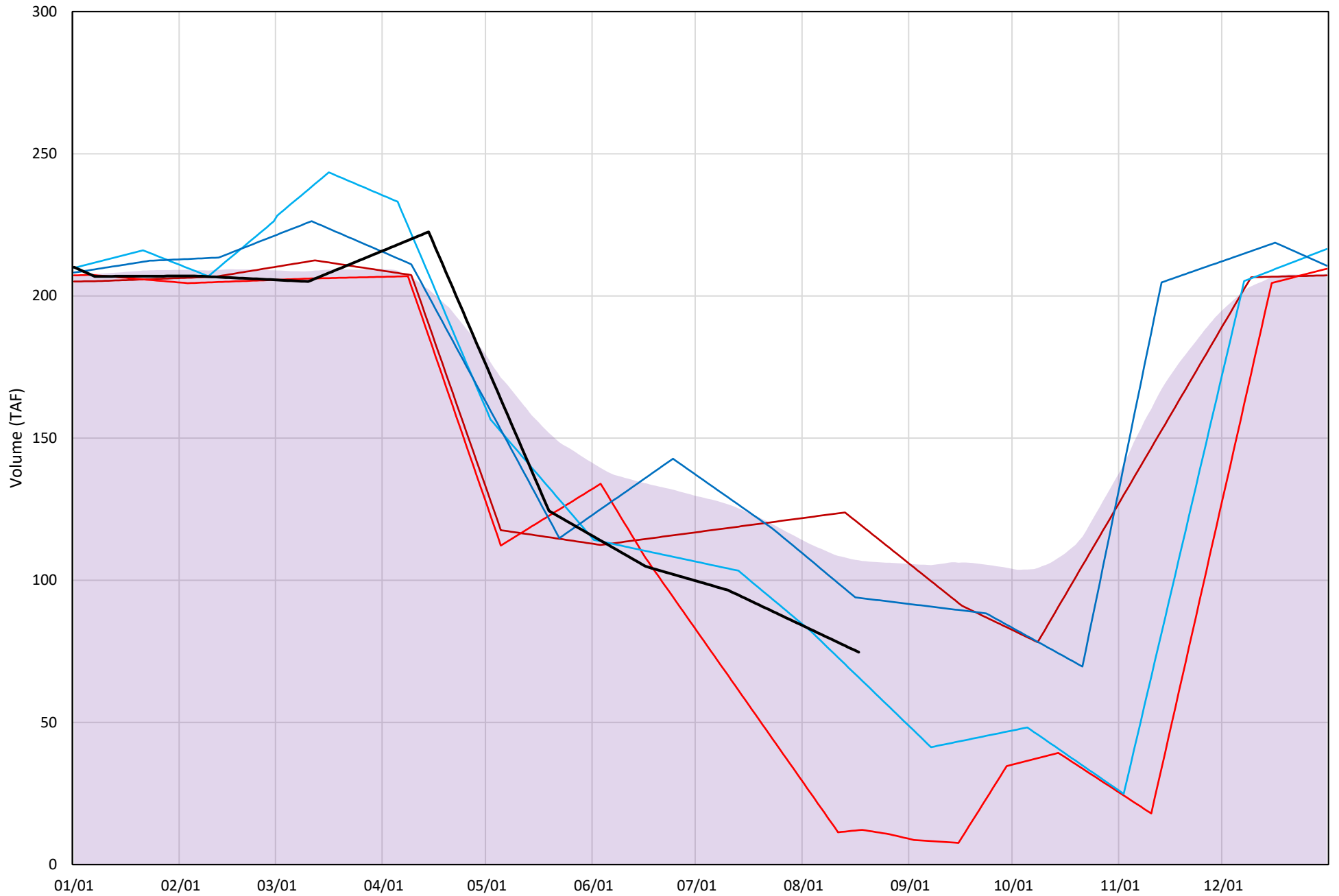
# Whiskeytown Lake Cold Water Pool Volume $\leq 60^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020



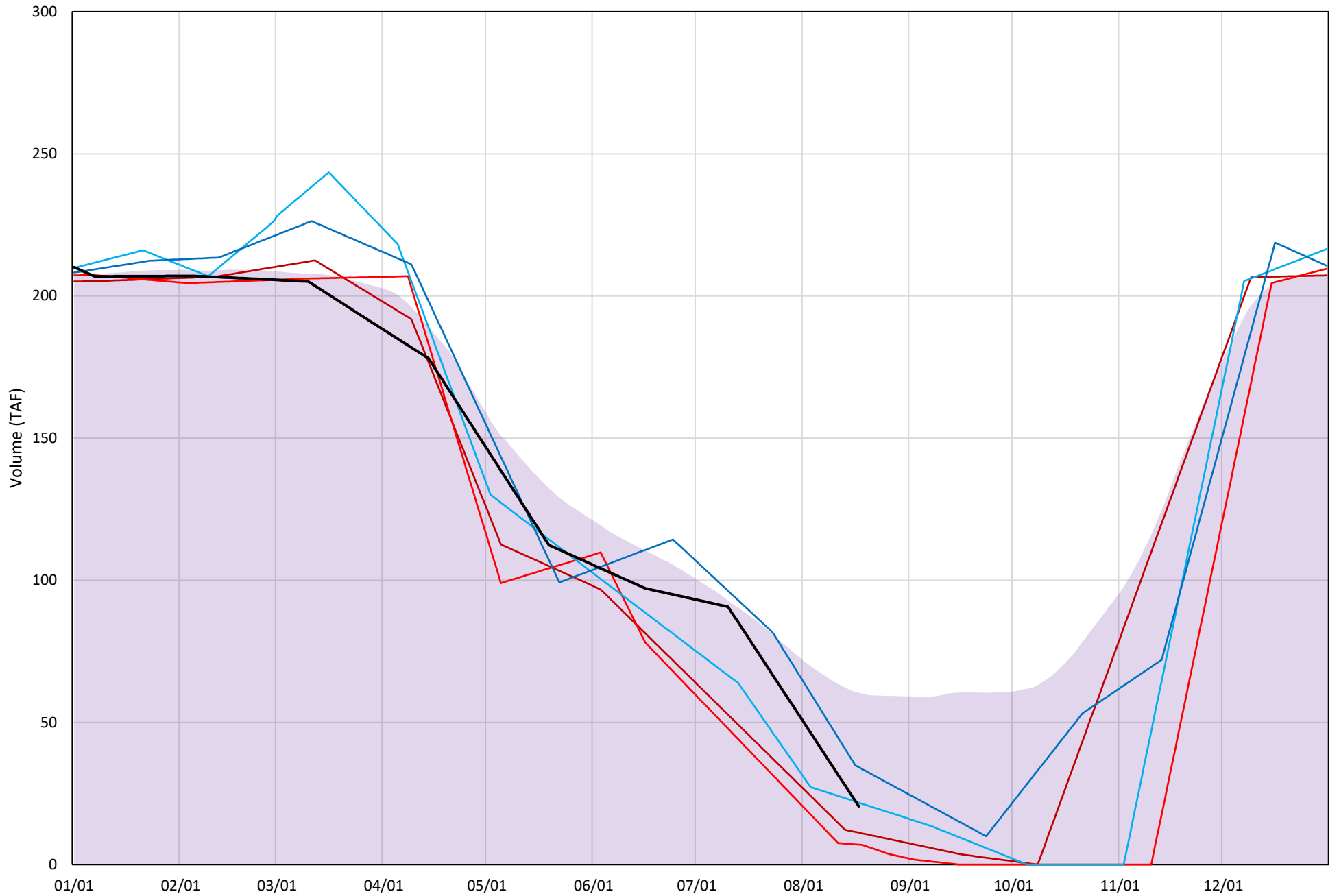
# Whiskeytown Lake Cold Water Pool Volume $\leq 58^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020



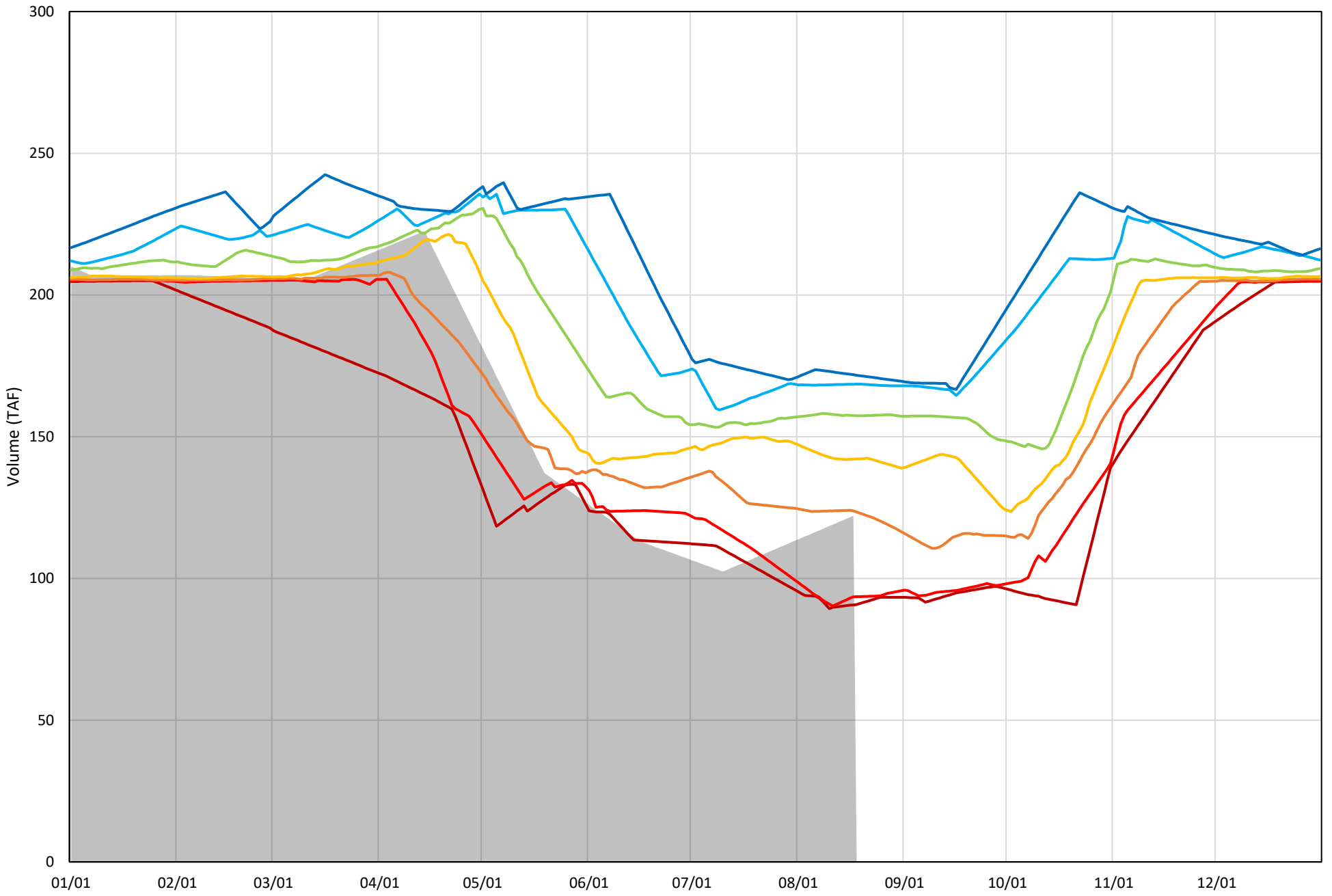
# Whiskeytown Lake Cold Water Pool Volume $\leq 56^{\circ}\text{F}$

Avg (2000-2019) 2014 2015 2016 2019 2020



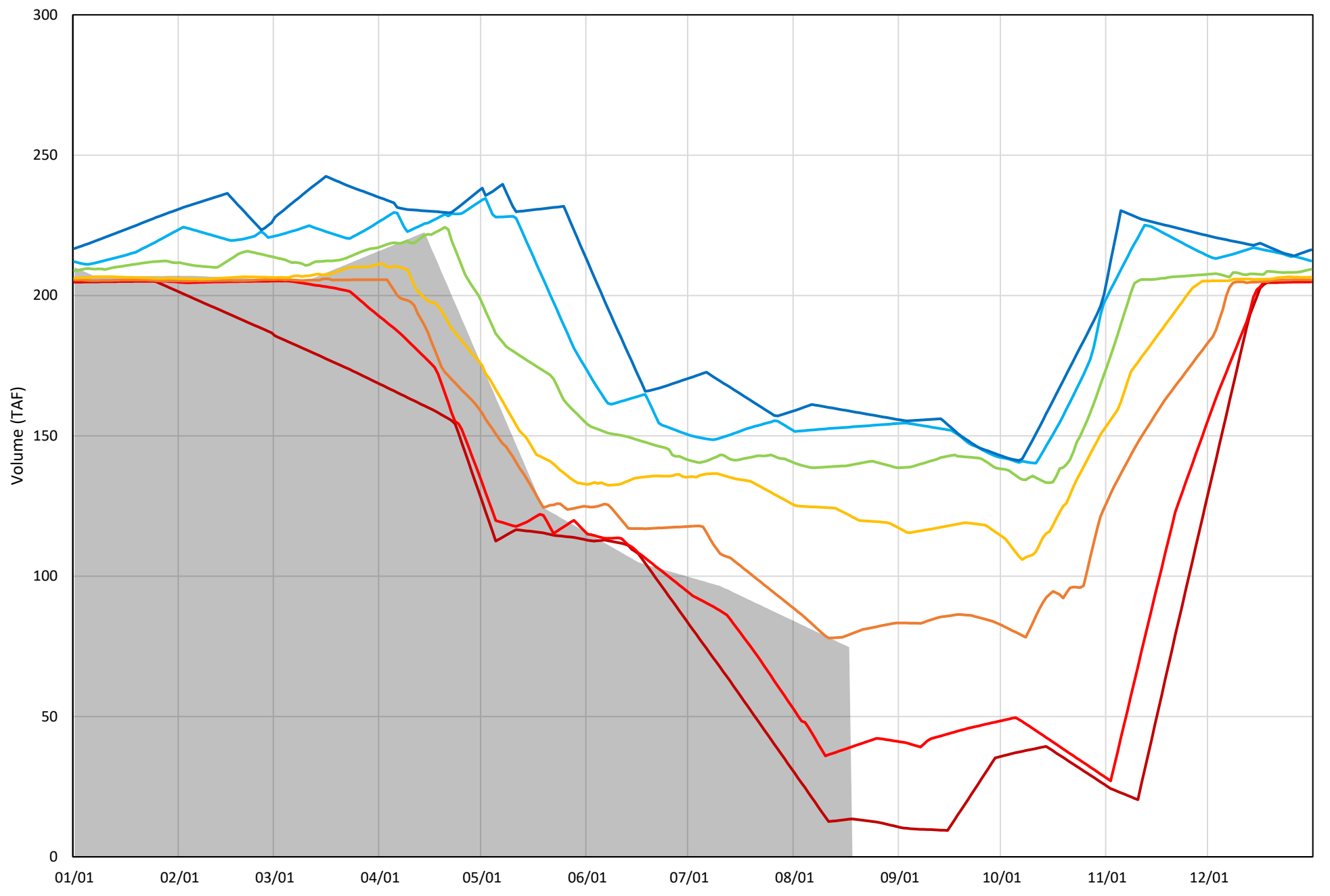
Whiskeytown Lake Cold Water Pool Volume  $\leq 60^{\circ}\text{F}$  - Percent Exceedances (2000-2019)

2020 95 90 75 50 25 10 5



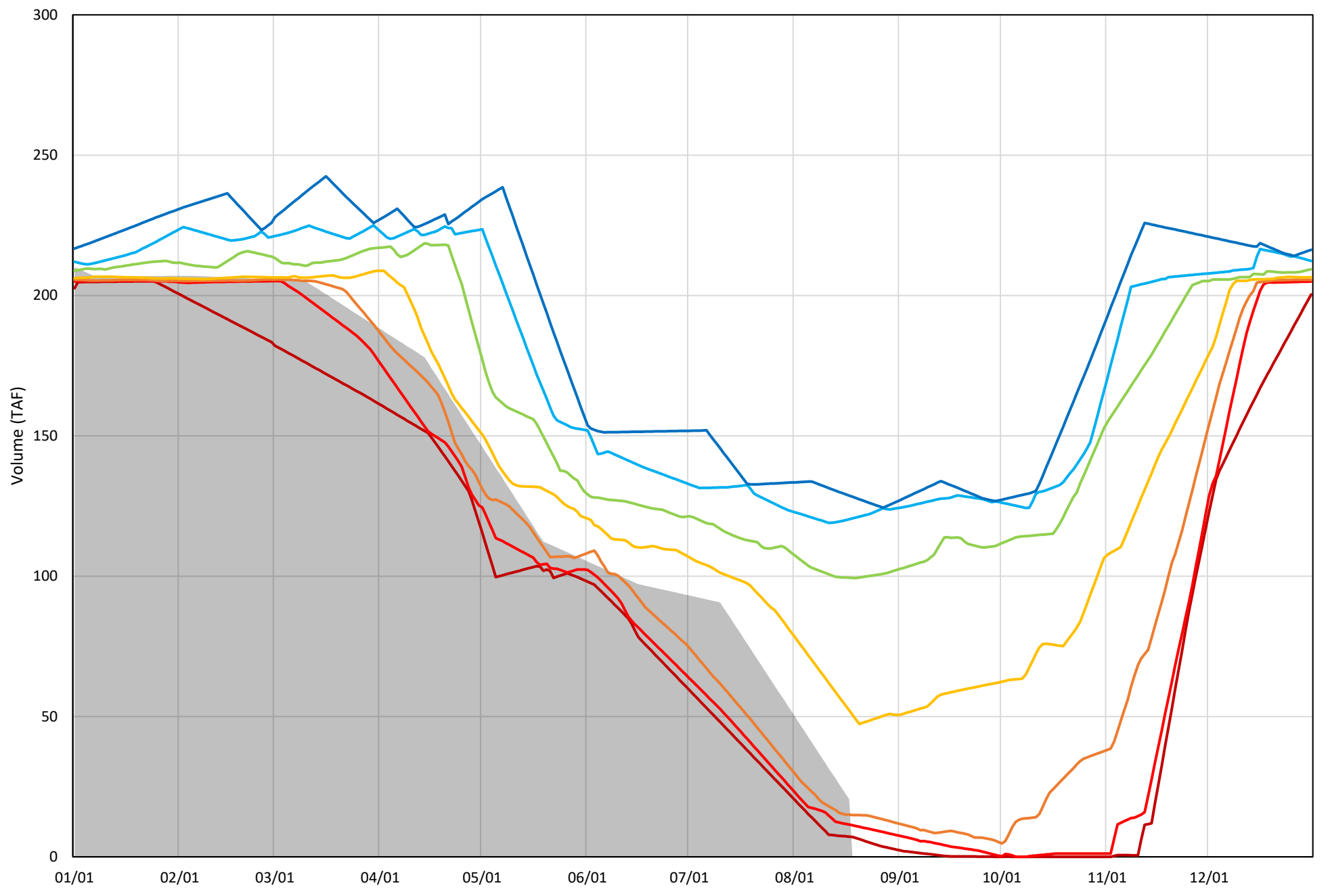
Whiskeytown Lake Cold Water Pool Volume  $\leq 58^{\circ}\text{F}$  - Percent Exceedances (2000-2019)

2020 95 90 75 50 25 10 5



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

2020 95 90 75 50 25 10 5



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

Aug-18 2020	Δ TAF				% Δ			
	≤60°	≤58°	≤56°	Abs. Avg.	≤60°	≤58°	≤56°	Abs. Avg.
2000	8	52	96	52	7	69	467	181
2001	37	72	100	70	30	97	488	205
2002	36	66	76	59	29	89	368	162
2003	26	49	36	37	21	65	176	87
2004	33	56	54	48	27	75	265	122
2005	-29	-30	-6	21	-23	-40	-28	30
2006	47	79	98	75	38	106	478	208
2007	35	59	70	54	28	78	341	149
2008	42	70	80	64	34	94	391	173
2009	2	1	-7	3	2	1	-32	12
2010	-29	-36	-6	24	-23	-49	-28	34
2011	11	31	27	23	9	42	134	61
2012	14	16	-5	12	12	21	-24	19
2013	50	84	109	81	41	113	530	228
2014	29	45	-9	28	24	61	-45	43
2015	-32	-63	-14	36	-26	-84	-66	59
2016	-13	-9	1	8	-11	-12	6	10
2017	34	60	70	55	27	80	343	150
2018	8	24	13	15	6	32	66	35
2019	2	19	14	11	1	26	67	31
2020	0	0	0	0	0	0	0	0

}

Historic - Current

}

(Historic - Current) / Current