

# Northern CVP Water Temperature Report

## March - 2021

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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	
Feb	49.7	49.1	47.1	49.2	49.4	49.6	49.3	49.6	49.9	49.9	46.3	45.3	44.2	44.2	2801	238	3281	51.3	49.3	51.6	
03/01	49.5	49.0	47.8	49.4	49.7	50.2	50.5	51.0	51.3	51.5	47.1	46.7	45.8	45.6	2782	77	3301	50.0	48.5	51.3	
03/02	49.8	49.1	47.8	49.6	49.8	50.2	50.5	?	51.0	51.3	51.7	47.3	46.7	45.9	2935	77	3300	54.0	49.5	52.8	
03/03	49.8	49.0	47.9	49.6	49.9	50.4	50.9	51.1	51.4	51.6	47.4	46.9	45.9	45.8	3661	77	3481	53.0	51.8	55.4	
03/04	49.3	49.1	48.2	49.5	49.9	50.5	51.3	51.7	52.2	52.1	47.5	47.1	46.3	46.1	3442	77	3481	51.5	51.4	53.7	
03/05	49.3	48.8	47.8	49.6	50.0	50.5	51.1	51.6	52.4	52.6	47.5	47.3	46.9	46.5	3287	177	3473	51.0	51.8	56.1	
03/06	49.5	48.6	47.5	49.5	50.1	50.6	51.6	52.1	52.7	52.7	47.6	47.4	48.2	47.3	3277	220	3480	49.5	49.1	50.2	
03/07	49.3	48.8	47.7	49.6	50.0	50.4	51.2	51.8	52.5	52.8	47.8	47.6	47.9	47.8	3102	155	3479	50.0	48.6	49.9	
03/08	49.3	48.6	48.1	49.3	49.5	49.7	50.6	51.2	51.9	52.0	47.3	47.6	47.1	46.7	3404	97	3483	47.0	47.2	48.3	
03/09	49.6	48.6	47.6	49.1	49.2	49.3	49.7	49.8	50.3	50.4	46.6	47.5	45.7	45.6	2747	281	3478	47.0	44.4	46.1	
03/10	49.5	48.7	48.3	48.8	48.9	49.0	49.3	49.6	50.2	49.8	46.7	47.8	45.6	45.5	3481	77	3475	43.0	41.5	43.5	
03/11	49.5	48.8	47.8	48.6	49.1	49.6	49.7	49.9	50.3	50.0	47.6	47.9	47.5	46.6	3424	157	3480	48.5	45.9	49.0	
03/12	49.6	49.1	47.6	48.8	49.3	49.8	50.6	51.0	51.6	51.4	48.0	47.7	47.8	47.7	2843	358	3474	56.0	52.2	55.2	
03/13	49.6	49.2	48.2	49.1	49.6	50.1	51.0	51.5	52.1	52.1	48.3	47.5	47.9	47.8	2804	257	3481	50.5	48.9	51.6	
03/14	49.4	48.8	48.8	49.3	49.3	49.3	50.2	50.9	51.7	51.7	?	47.0	47.2	46.8	3143	78	3479	45.5	44.6	46.5	
03/15	49.3	48.8	47.8	49.4	49.6	49.7	48.9	49.1	49.6	50.0	47.8	47.3	45.6	45.9	3187	380	3477	46.0	43.8	44.5	
03/16	49.6	49.2	48.6	49.2	49.6	50.0	49.8	50.0	50.3	49.8	47.6	47.4	47.0	46.6	3262	78	3482	50.0	46.6	46.9	
03/17	49.6	49.0	48.5	49.2	49.6	50.0	51.0	51.5	52.1	51.5	48.1	47.5	47.0	46.4	3173	77	3481	51.5	49.7	50.4	
03/18	49.6	48.9	47.9	49.3	49.3	49.4	?	50.3	51.0	51.9	51.8	47.8	47.8	47.2	2655	429	3484	49.0	49.3	49.9	
03/19	49.2	48.7	48.0	49.4	50.1	50.6	50.8	50.9	51.3	51.3	49.3	48.0	48.1	48.0	2687	362	3486	52.5	52.2	53.3	
03/20	49.2	48.7	48.0	49.5	50.0	50.6	51.8	52.3	52.8	52.6	48.3	48.0	47.9	48.0	2786	361	3483	48.0	49.3	51.8	
03/21	49.8	49.1	48.5	49.5	50.0	50.6	51.8	52.5	53.1	53.2	48.7	48.1	47.7	47.6	3171	167	3529	54.0	51.0	53.0	
03/22	49.7	49.1	48.6	49.7	50.3	51.0	52.6	53.2	53.9	53.7	49.6	48.5	49.2	48.5	3122	226	3529	57.0	54.8	56.2	
03/23	50.2	49.6	49.1	49.7	50.2	50.7	52.1	52.8	53.5	53.6	49.1	48.5	48.9	48.8	3224	214	3532	56.0	54.4	55.8	
03/24	50.0	49.3	49.5	49.9	50.3	50.8	52.0	52.6	53.2	53.2	49.0	48.6	48.5	48.5	3090	77	8539	57.0	55.5	57.2	
03/25	50.0	49.5	49.0	50.3	50.7	51.2	?	52.4	53.2	53.9	53.8	49.7	48.8	49.6	2783	213	3535	54.5	54.3	56.6	
03/26	50.1	49.6	49.8	50.4	51.0	51.6	52.7	53.5	54.2	54.3	49.8	48.8	49.5	49.8	2779	77	3534	60.5	57.7	57.8	
03/27	50.3	49.8	49.8	50.4	51.2	52.1	53.6	54.6	55.3	55.3	50.4	49.0	50.7	50.5	3005	77	3578	62.0	58.5	60.7	
03/28	49.7	49.3	49.6	50.7	51.4	52.3	54.2	55.4	56.3	56.5	50.7	49.3	51.9	51.7	2905	77	3545	59.0	58.5	60.8	
03/29	50.7	!	-	49.2	51.1	51.6	52.2	53.9	55.1	56.0	56.3	50.3	49.3	51.8	2919	207	3509	59.5	59.0	60.8	
03/30	50.5	!	-	49.8	51.0	51.5	52.0	53.1	53.7	54.3	54.7	50.2	50.0	50.2	3160	77	3456	63.5	60.9	61.7	
03/31	50.8	50.3	49.9	50.7	51.5	52.5	54.0	54.9	55.6	55.4	50.6	50.4	51.6	50.8	3506	77	3437	66.0	59.3	62.6	
Mar	49.7	49.1	48.5	49.7	50.1	50.5	51.4	51.9	52.6	52.5	48.4	48.0	48.0	47.8	3089	172	3644	53.0	51.3	53.2	
															Total CFS	95746	5341	112961			
															Total AF	189908	10594	224054			

**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)

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		
03/01	45	71	58.0	34	68	51.0	37	71	54.0	37	71	54.0	38	66	52.0	41	66	53.5	42	61	51.5	39	61	50.0	38	56	47.0	41	57	49.0	39	63	51.0	43	67	55.0		
03/02	34	66	50.0	35	73	54.0	37	71	54.0	38	63	50.5	39	64	51.5	43	58	50.5	38	58	48.0	37	54	45.5	41	55	48.0	39	57	48.0	39	63	51.0	40	71	55.5		
03/03	34	74	54.0	33	73	53.0	37	63	50.0	42	63	52.5	40	58	49.0	37	60	48.5	38	55	46.5	39	54	46.5	41	54	47.5	40	61	50.5	40	65	52.5	42	65	53.5		
03/04	33	73	53.0	40	62	51.0	39	64	51.5	39	58	48.5	36	60	48.0	38	53	45.5	37	51	44.0	35	55	45.0	40	60	50.0	40	67	53.5	42	66	54.0	44	66	55.0		
03/05	38	65	51.5	38	66	52.0	40	58	49.0	37	61	49.0	37	56	46.5	39	53	46.0	35	59	47.0	35	62	48.5	43	70	56.5	44	70	57.0	45	71	58.0	46	72	59.0		
03/06	35	67	51.0	44	60	52.0	36	63	49.5	37	53	45.0	38	53	45.5	37	60	48.5	35	65	50.0	37	69	53.0	42	67	54.5	47	66	56.5	42	68	55.0	42	69	55.5		
03/07	40	59	49.5	39	62	50.5	38	54	46.0	38	53	45.5	38	55	46.5	35	65	50.0	36	69	52.5	39	67	53.0	42	60	51.0	36	62	49.0	38	65	51.5	40	70	55.0		
03/08	37	63	50.0	45	53	49.0	39	52	45.5	38	52	45.0	33	60	46.5	36	66	51.0	36	66	51.0	38	63	50.5	45	63	54.0	45	70	57.5	44	71	57.5	46	72	59.0		
03/09	40	54	47.0	40	51	45.5	39	52	45.5	34	62	48.0	35	67	51.0	36	68	52.0	38	64	51.0	35	60	47.5	41	69	55.0	46	71	58.5	46	70	58.0	46	69	57.5		
03/10	39	55	47.0	38	51	44.5	31	62	46.5	35	67	51.0	34	66	50.0	39	59	49.0	36	60	48.0	36	63	49.5	39	58	48.5	42	60	51.0	43	65	54.0	42	69	55.5		
03/11	38	48	43.0	35	63	49.0	38	68	53.0	36	66	51.0	39	56	47.5	36	58	47.0	35	64	49.5	37	65	51.0	41	69	55.0	44	70	57.0	46	69	57.5	44	69	56.5		
03/12	34	63	48.5	43	69	56.0	36	68	52.0	40	56	48.0	39	58	48.5	36	63	49.5	37	64	50.5	43	63	53.0	46	64	55.0	45	67	56.0	44	69	56.5	43	69	56.0		
03/13	42	70	56.0	36	69	52.5	39	54	46.5	35	56	45.5	32	61	46.5	35	61	48.0	42	59	50.5	44	63	53.5	49	63	56.0	43	62	52.5	42	64	53.0	42	70	56.0		
03/14	34	67	50.5	41	52	46.5	36	56	46.0	31	60	45.5	35	61	48.0	42	59	50.5	44	60	52.0	41	60	50.5	40	57	48.5	41	64	52.5	47	70	58.5	47	74	60.5		
03/15	41	50	45.5	38	57	47.5	34	60	47.0	33	61	47.0	42	54	48.0	42	59	50.5	36	61	48.5	36	62	49.0	40	67	53.5	47	71	59.0	45	68	56.5	45	67	56.0		
03/16	37	55	46.0	43	60	51.5	33	60	46.5	45	54	49.5	41	58	49.5	35	62	48.5	35	64	49.5	39	65	52.0	46	69	57.5	45	71	58.0	47	71	59.0	46	73	59.5		
03/17	42	58	50.0	43	61	52.0	45	54	49.5	41	57	49.0	37	61	49.0	36	66	51.0	39	65	52.0	38	68	53.0	47	70	58.5	47	76	61.5	50	76	63.0	48	76	62.0		
03/18	43	60	51.5	47	52	49.5	43	56	49.5	35	60	47.5	36	66	51.0	39	65	52.0	40	69	54.5	42	73	57.5	44	70	57.0	46	73	59.5	47	75	61.0	47	75	61.0		
03/19	46	52	49.0	51	57	54.0	37	60	48.5	36	66	51.0	39	66	52.5	40	70	55.0	43	73	58.0	43	68	55.5	47	76	61.5	50	80	65.0	50	76	63.0	45	75	60.0		
03/20	46	59	52.5	37	61	49.0	36	66	51.0	40	67	53.5	40	69	54.5	41	73	57.0	43	68	55.5	42	72	57.0	45	77	61.0	49	77	63.0	49	78	63.5	47	78	62.5		
03/21	35	61	48.0	42	66	54.0	41	66	53.5	40	67	53.5	40	72	56.0	41	66	53.5	41	70	55.5	41	77	59.0	45	75	60.0	50	65	57.5	46	68	57.0	42	74	58.0		
03/22	40	68	54.0	47	64	55.5	39	65	52.0	39	71	55.0	42	68	55.0	41	75	58.0	42	79	60.5	44	78	61.0	49	79	64.0	51	78	64.5	52	75	63.5	50	73	61.5		
03/23	47	67	57.0	46	67	56.5	41	73	57.0	42	68	55.0	41	77	59.0	42	78	60.0	44	78	61.0	45	74	59.5	50	82	66.0	50	82	66.0	52	78	65.0	51	76	63.5		
03/24	46	66	56.0	47	70	58.5	41	64	52.5	40	73	56.5	42	79	60.5	44	78	61.0	44	72	58.0	41	74	57.5	50	81	65.5	50	78	64.0	49	77	63.0	47	77	62.0		
03/25	45	69	57.0	48	65	56.5	42	73	57.5	44	78	61.0	45	78	61.5	45	66	55.5	40	72	56.0	43	79	61.0	49	82	65.5	48	77	62.5	47	74	60.5	45	66	55.5		
03/26	44	65	54.5	49	73	61.0	44	78	61.0	46	77	61.5	44	66	55.0	41	73	57.0	44	79	61.5	45	81	63.0	48	79	63.5	47	75	61.0	43	69	56.0	45	66	55.5		
03/27	46	75	60.5	50	81	65.5	45	80	62.5	43	67	55.0	42	75	58.5	45	81	63.0	46	81	63.5	46	79	62.5	48	75	61.5	47	73	60.0	42	69	55.5	44	68	56.0		
03/28	46	78	62.0	43	80	61.5	42	69	55.5	43	78	60.5	44	81	62.5	45	80	62.5	46	77	61.5	46	72	59.0	48	75	61.5	40	63	51.5	38	64	51.0	42	69	55.5		
03/29	42	76	59.0	50	70	60.0	45	76	60.5	45	80	62.5	46	80	63.0	47	78	62.5	47	70	58.5	45	63	54.0	45	68	56.5	40	71	55.5	42	71	56.5	45	75	60.0		
03/30	49	70	59.5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
03/31	51	76	63.5	59	79	60.0	45	83	64.0	47	79	63.0	47	75	61.0	46	69	57.5	47	63	55.0	44	63	53.5	43	69	56.0	47	75	61.0	48	79	63.5	49	79	64.0		

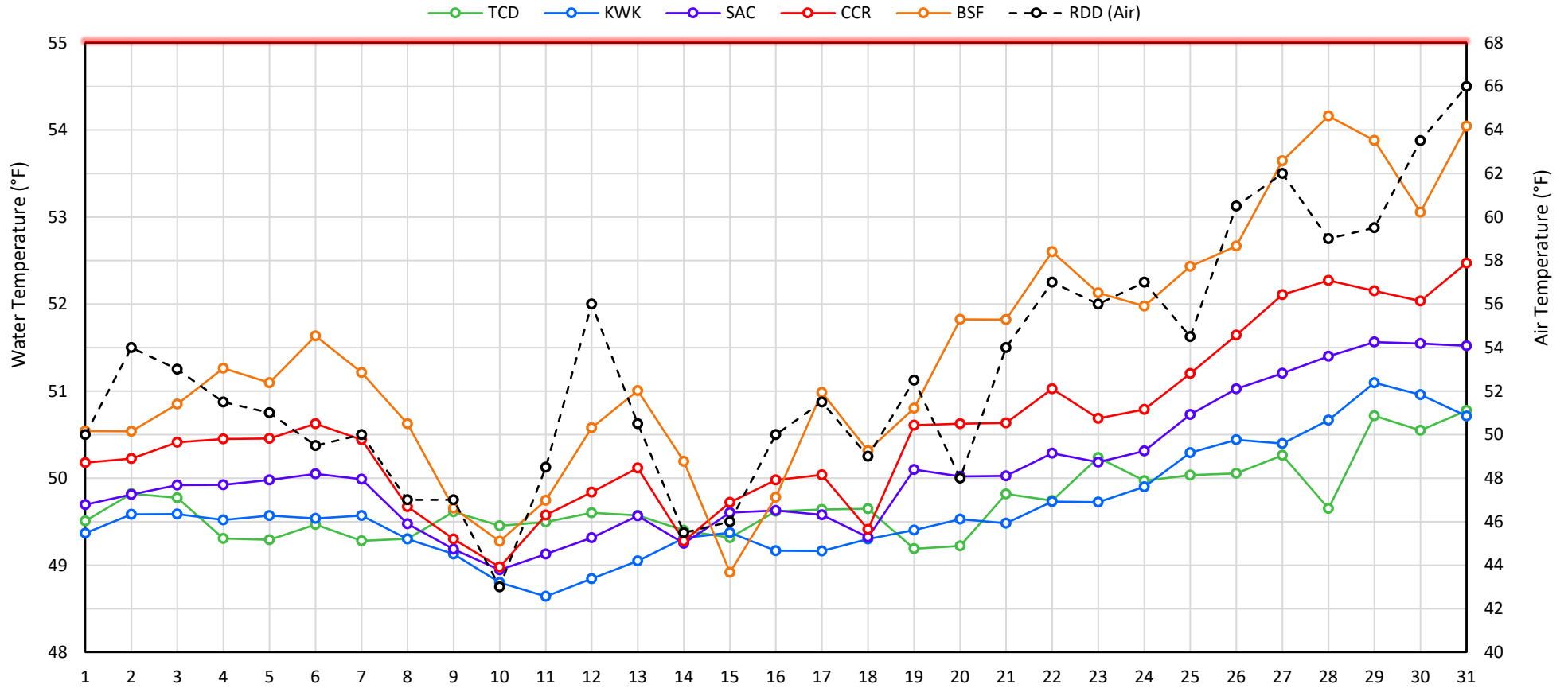
Web Links

- [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

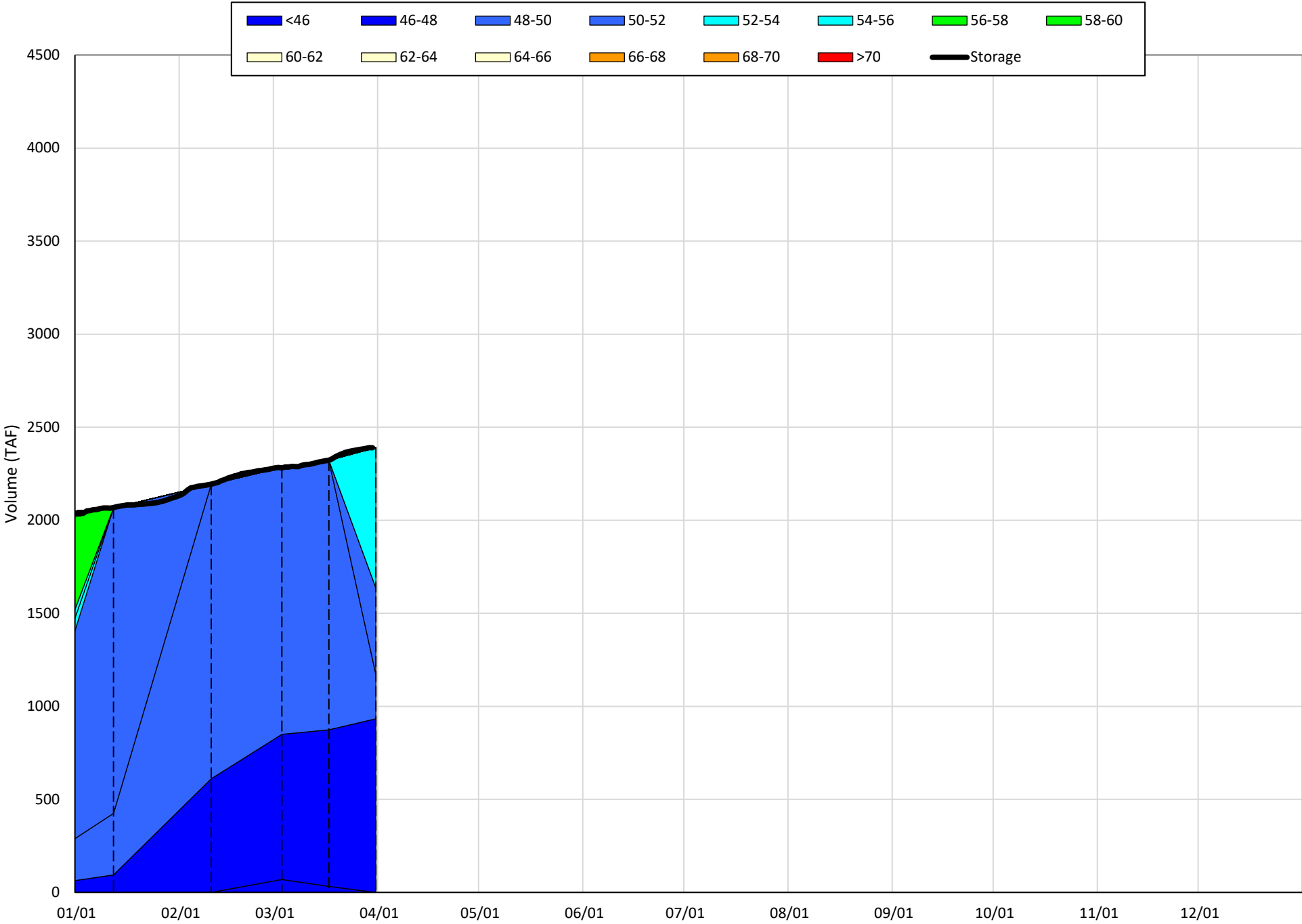
<sup>1</sup> Distances are approximate

# Shasta Lake Isothermobaths & Cold Water Pool Statistics

## 2021

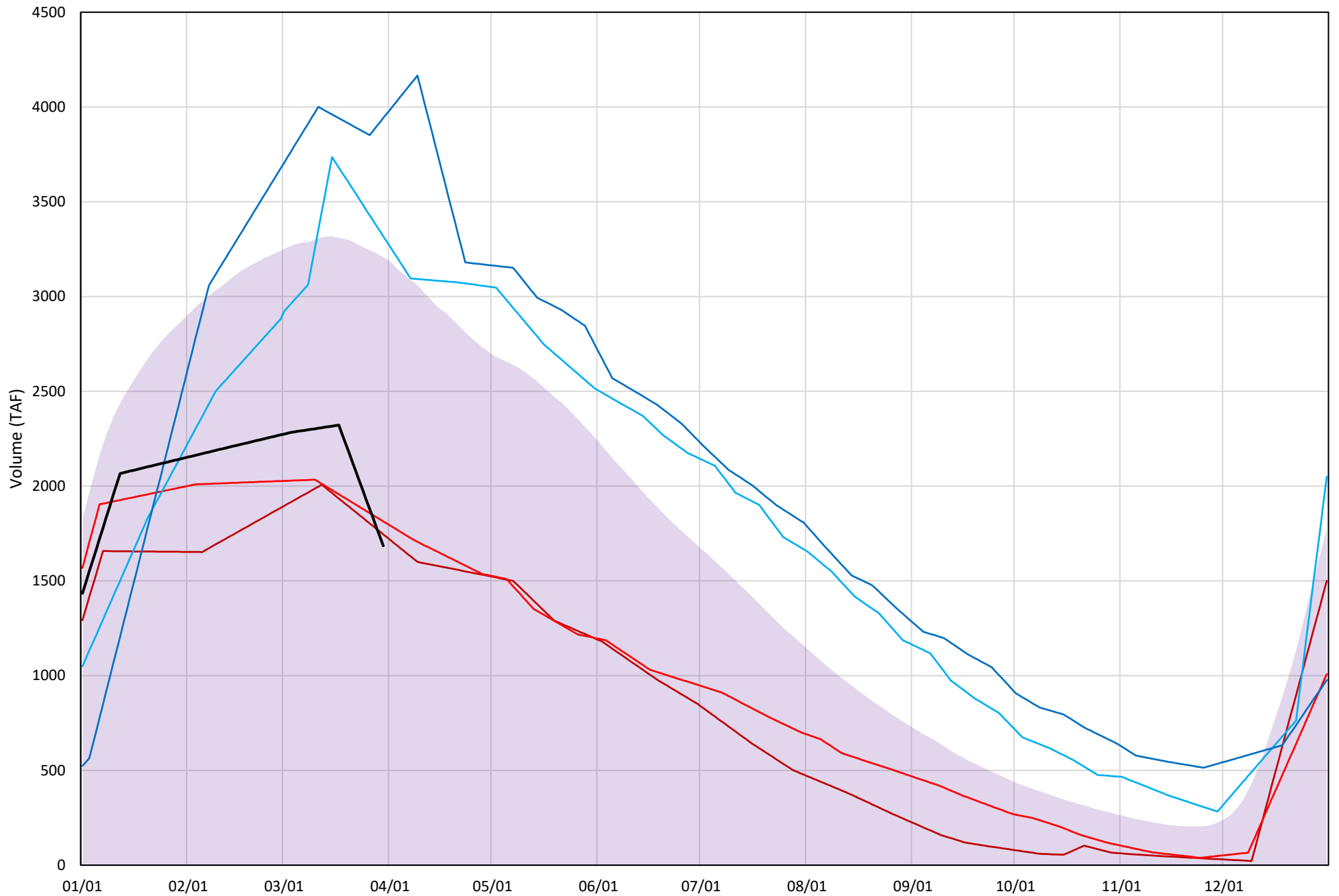
Page	Description
6	- Shasta Lake Isothermobaths Plot
7	- Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$
8	- Shasta Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$
9	- Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$
10	- Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - 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 - 2021



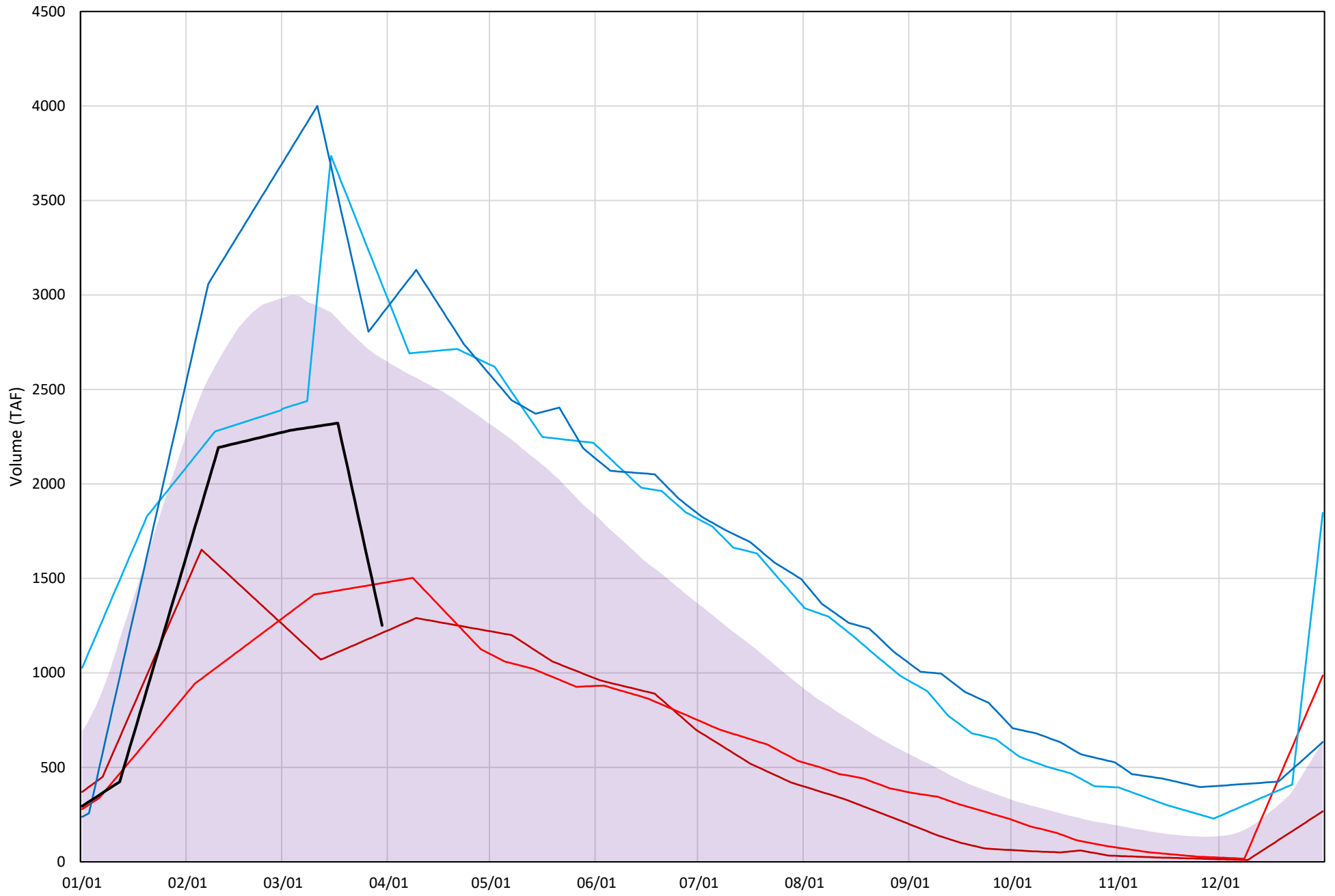
# Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$

Avg (1998-2020) 2014 2015 2016 2019 2021



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

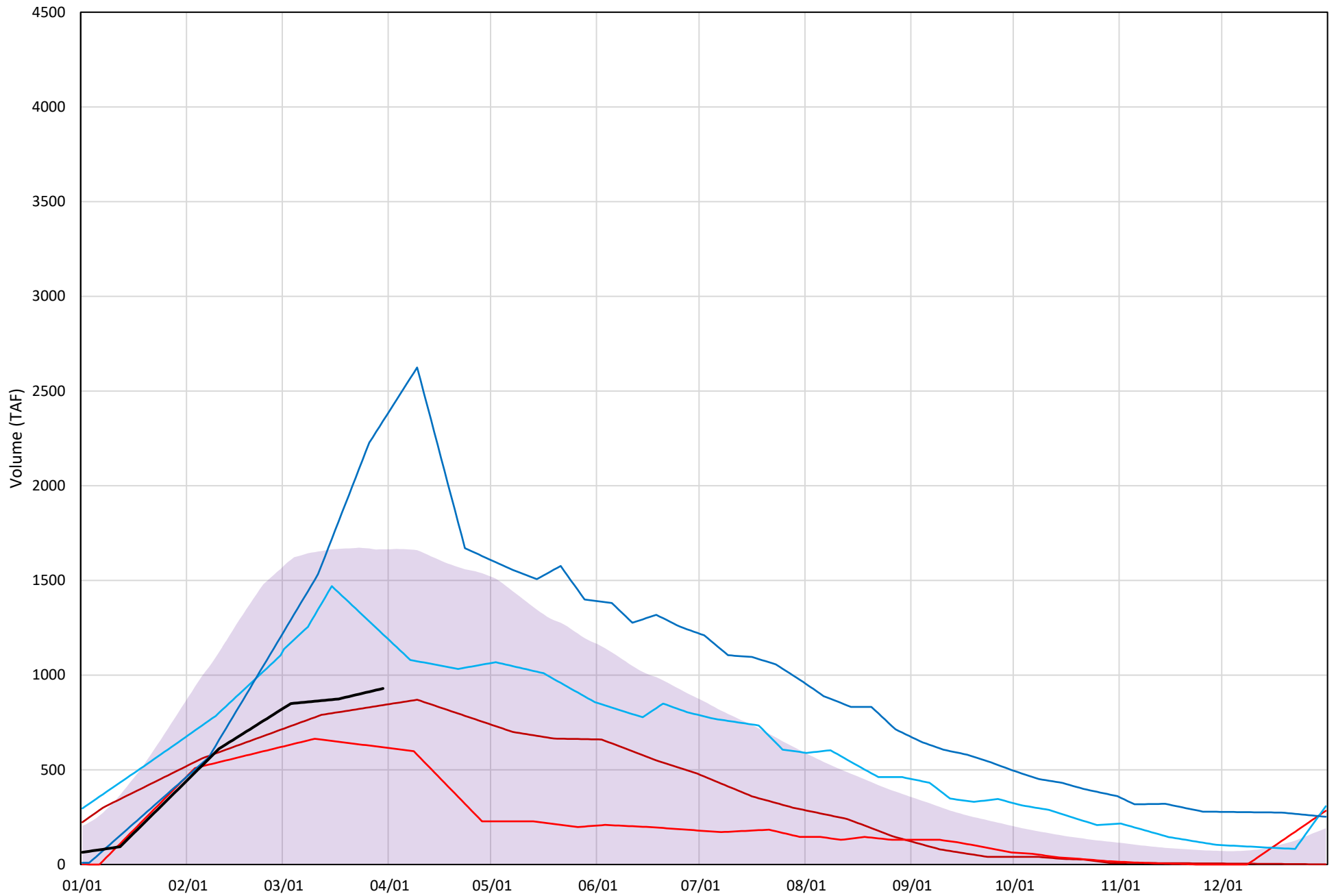
Avg (1998-2020) 2014 2015 2016 2019 2021





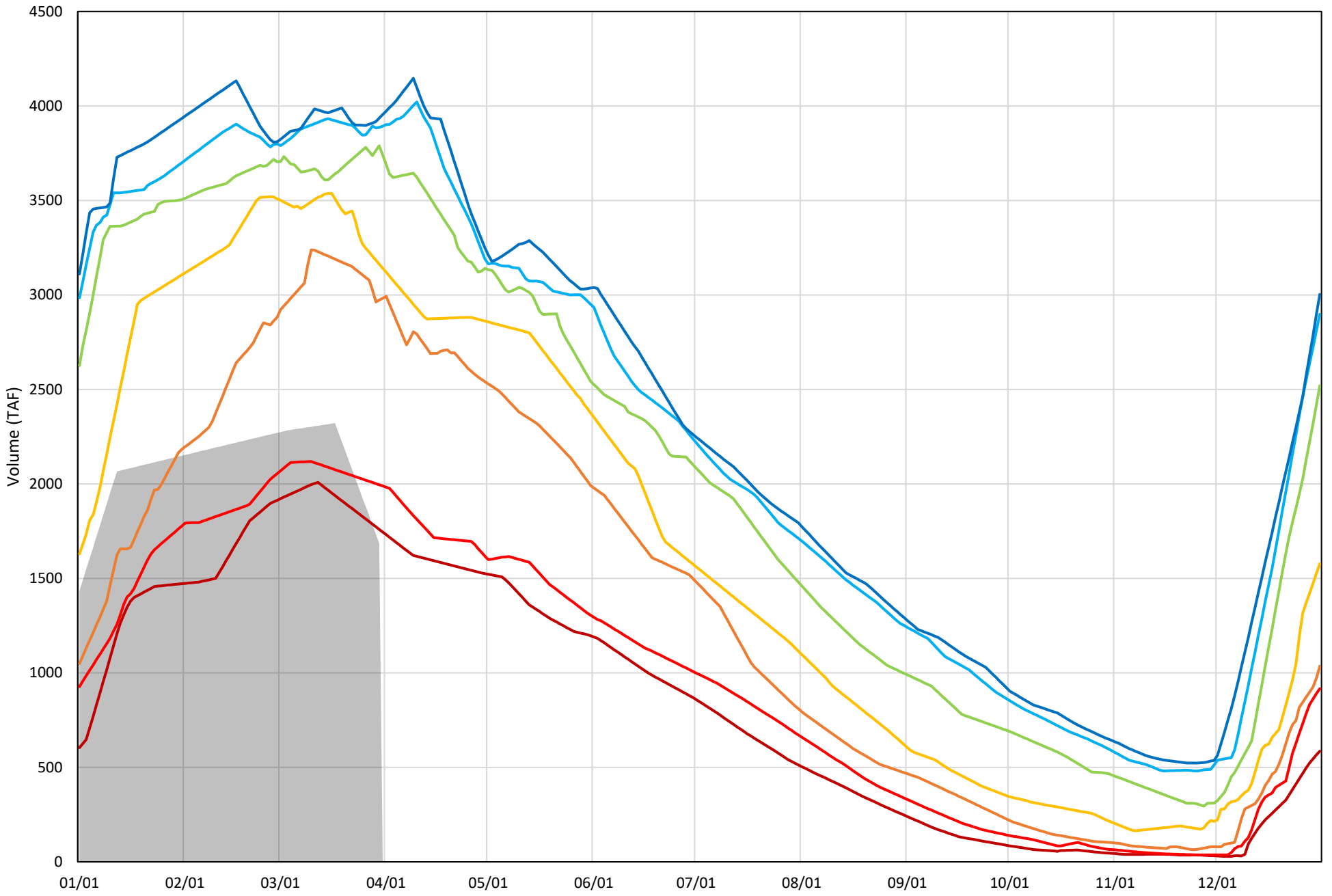
# Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

Avg (1998-2020) 2014 2015 2016 2019 2021



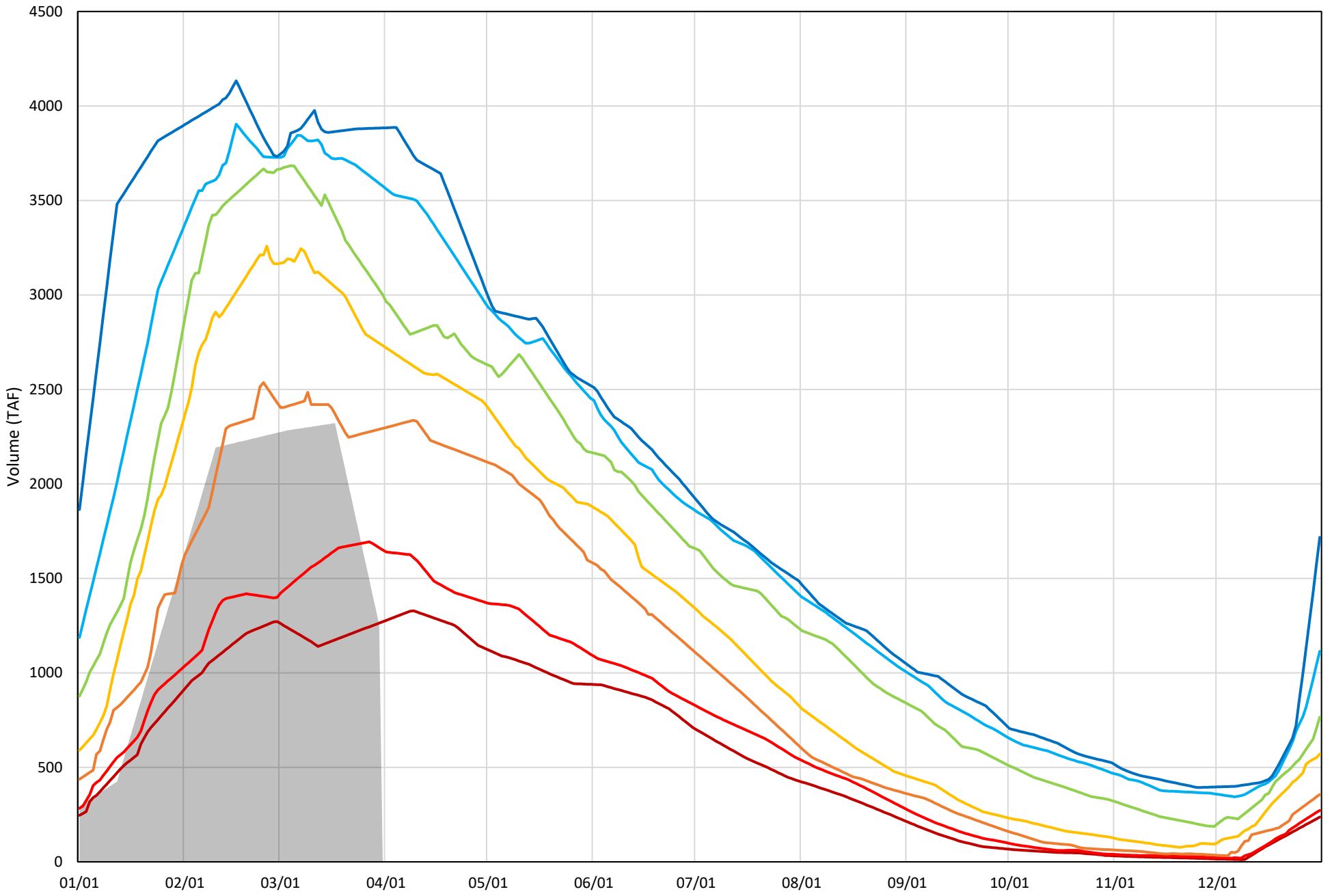
Shasta Lake Cold Water Pool Volume  $\leq 52^{\circ}\text{F}$  - Percent Exceedances (1998-2020)

2021 95 90 75 50 25 10 5



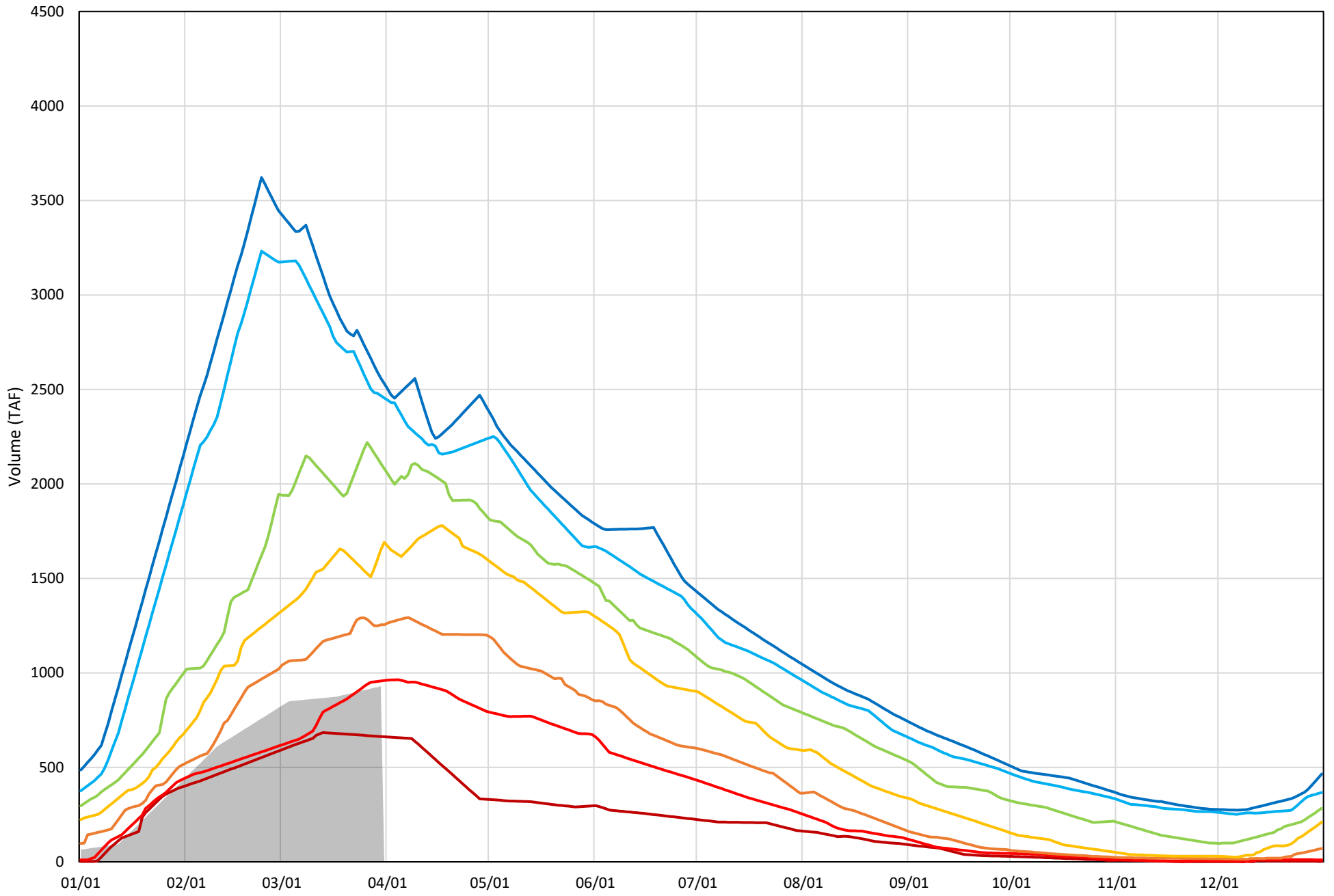
Shasta Lake Cold Water Pool Volume  $\leq 50^{\circ}\text{F}$  - Percent Exceedances (1998-2020)

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)

Mar-31 2021	Δ TAF				% Δ			
	≤52°	≤50°	≤48°	Abs. Avg.	≤52°	≤50°	≤48°	Abs. Avg.
1998	1820	1714	721	1418	108	137	78	108
1999	1921	1984	1633	1846	114	159	176	149
2000	1391	1359	325	1025	83	109	35	75
2001	1351	1493	1297	1380	80	119	140	113
2002	1981	2092	948	1674	118	167	102	129
2003	1369	1169	521	1019	81	93	56	77
2004	1478	1777	416	1223	88	142	45	91
2005	1043	1038	331	804	62	83	36	60
2006	2145	2503	1623	2090	127	200	175	167
2007	1442	1676	983	1367	86	134	106	108
2008	1288	692	526	835	76	55	57	63
2009	582	783	782	716	35	63	84	60
2010	2158	1534	973	1555	128	123	105	118
2011	2231	2665	1179	2025	132	213	127	157
2012	2108	1590	567	1422	125	127	61	104
2013	1413	1457	982	1284	84	117	106	102
2014	61	-39	-88	63	4	-3	-9	5
2015	129	224	-310	221	8	18	-33	20
2016	1633	1804	286	1241	97	144	31	91
2017	2105	1449	1305	1620	125	116	140	127
2018	1195	1085	287	856	71	87	31	63
2019	2257	1648	1411	1772	134	132	152	139
2020	1911	797	201	970	113	64	22	66
2021	0	0	0	0	0	0	0	0

}

Historic - Current

}

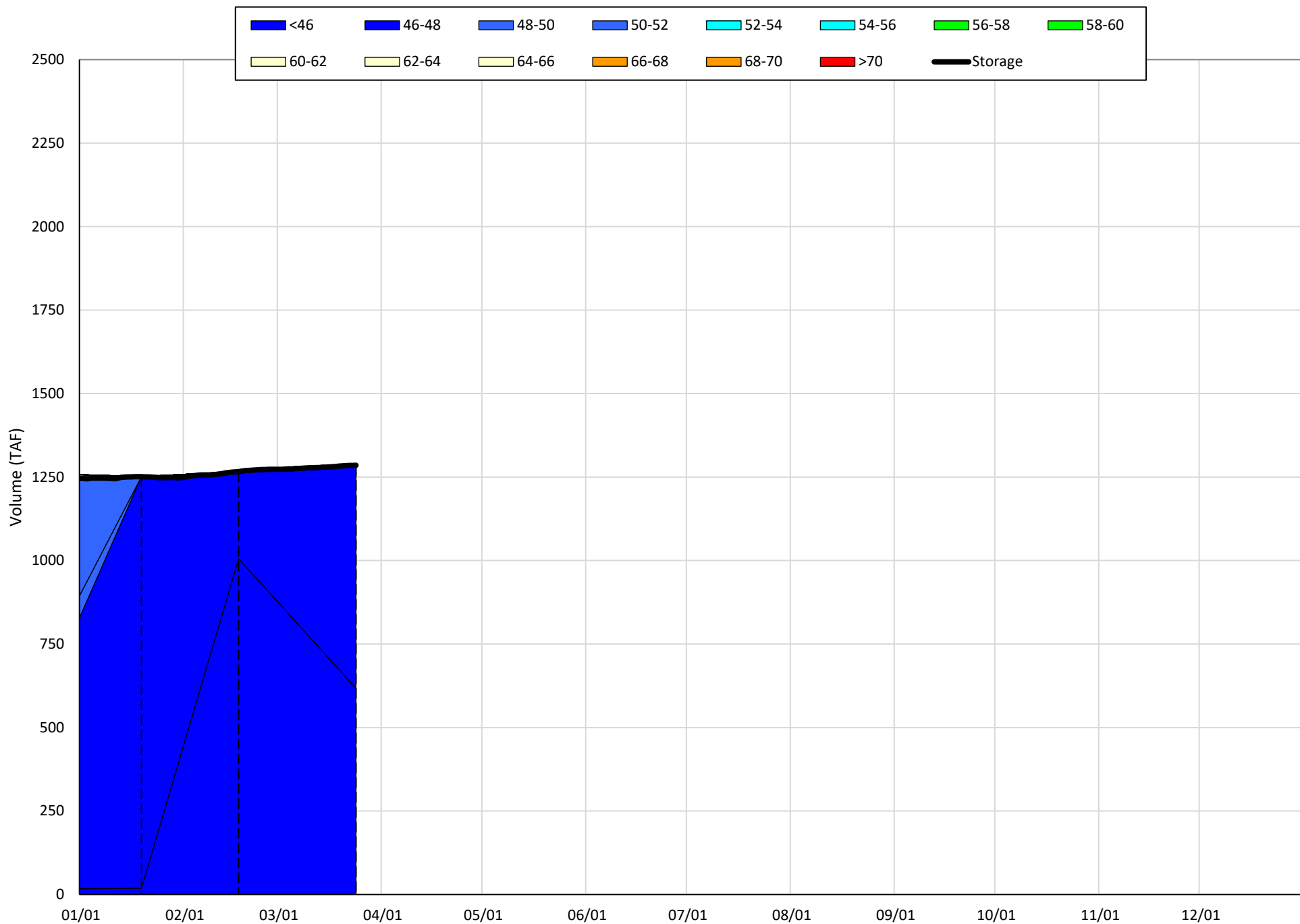
(Historic - Current) / Current

# Trinity Lake Isothermobaths & Cold Water Pool Statistics

## 2021

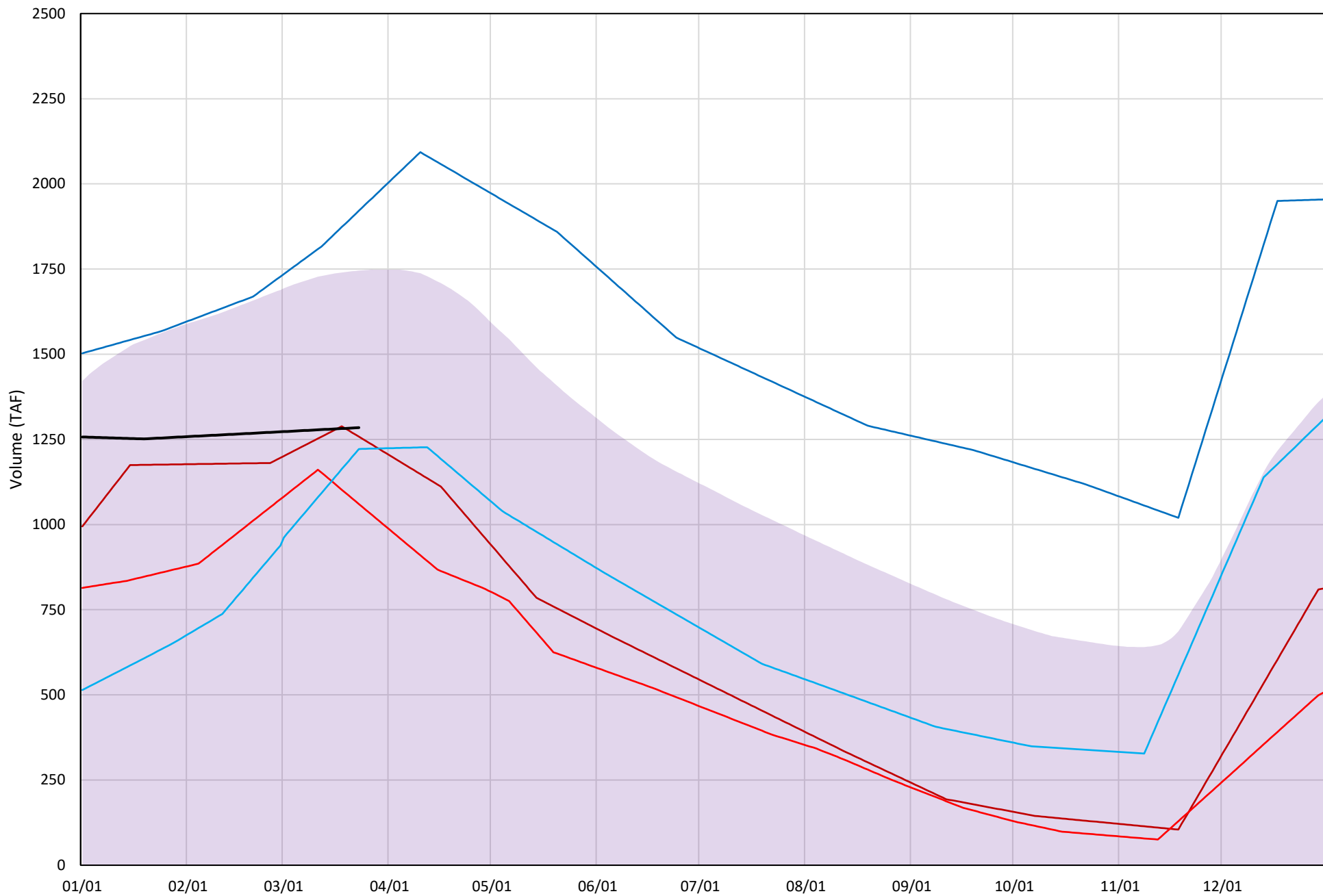
Page	Description
15	- Trinity Lake Isothermobaths Plot
16	- Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$
17	- Trinity Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$
18	- Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$
19	- Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - 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 - 2021



# Trinity Lake Cold Water Pool Volume ≤52°F

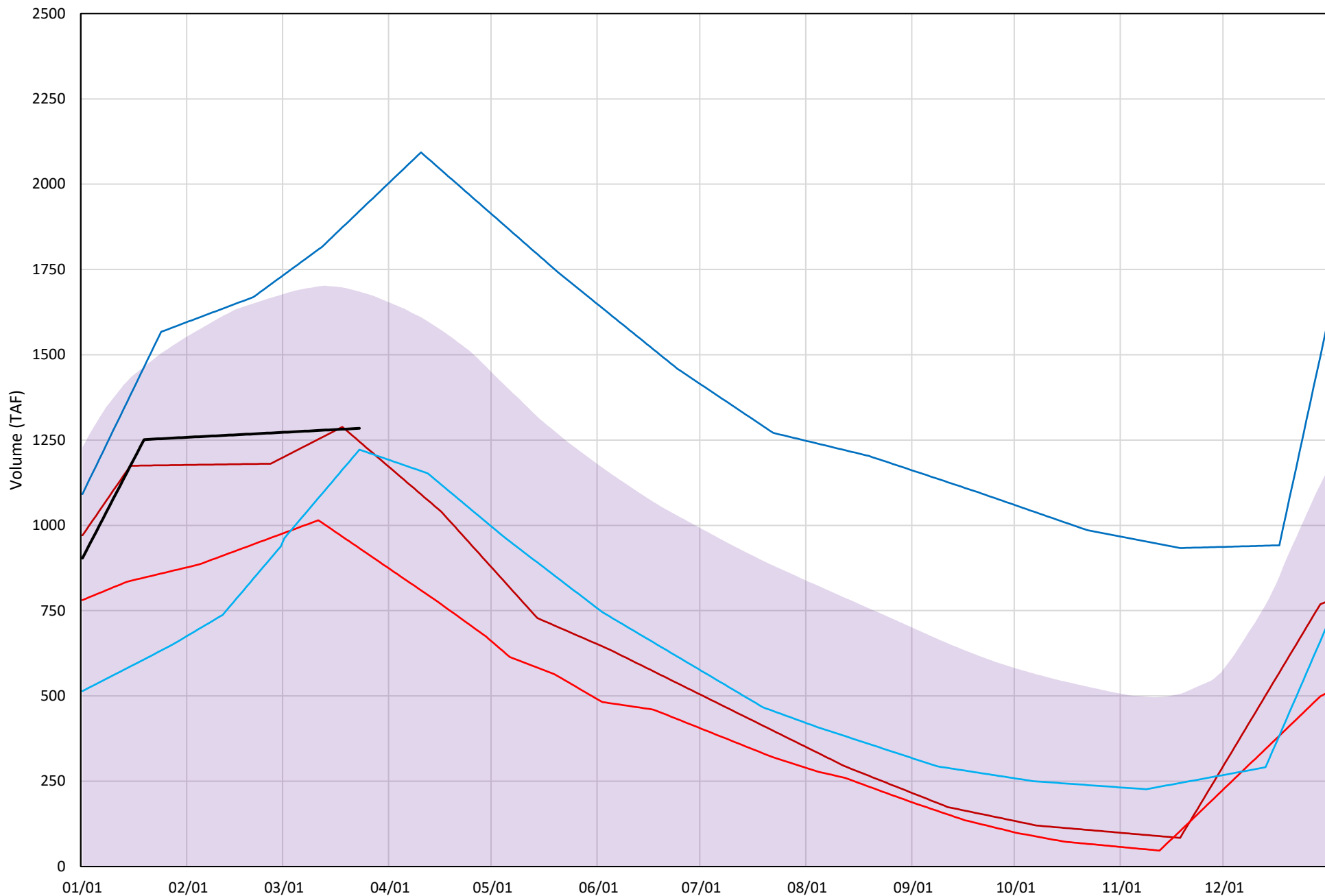
Avg (2000-2020) 2014 2015 2016 2019 2021





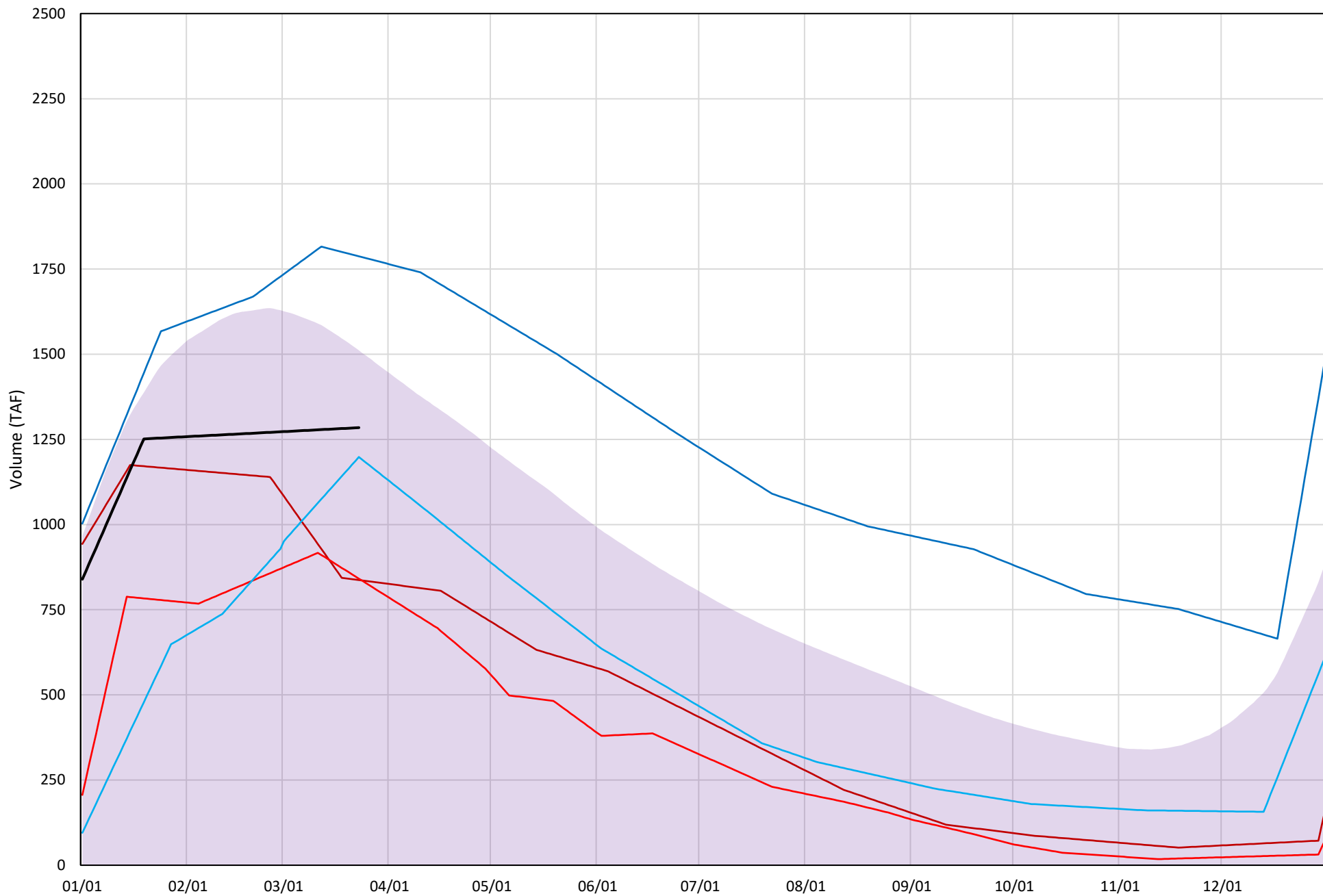
# Trinity Lake Cold Water Pool Volume ≤50°F

Avg (2000-2020) 2014 2015 2016 2019 2021

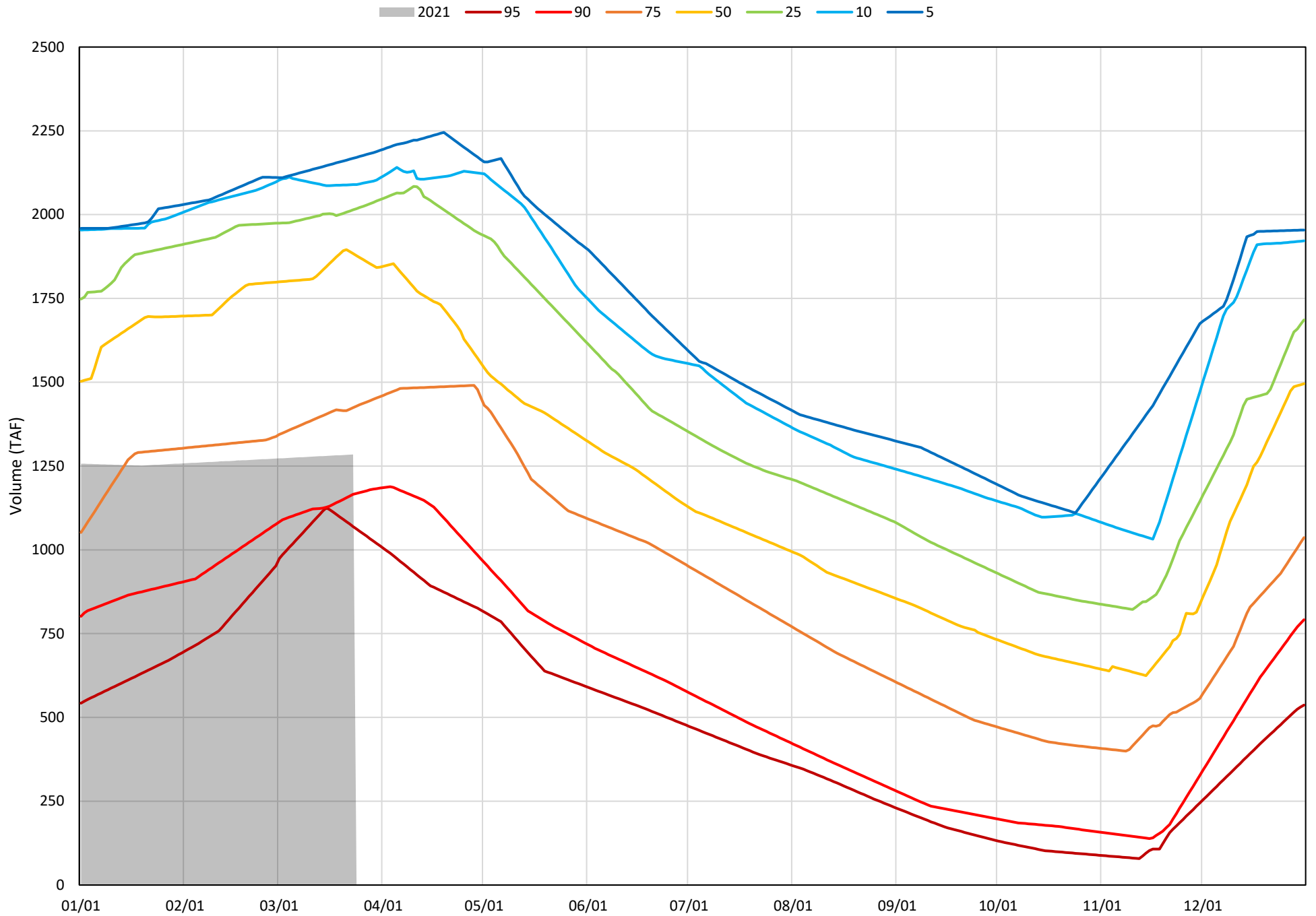


# Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$

Avg (2000-2020) 2014 2015 2016 2019 2021

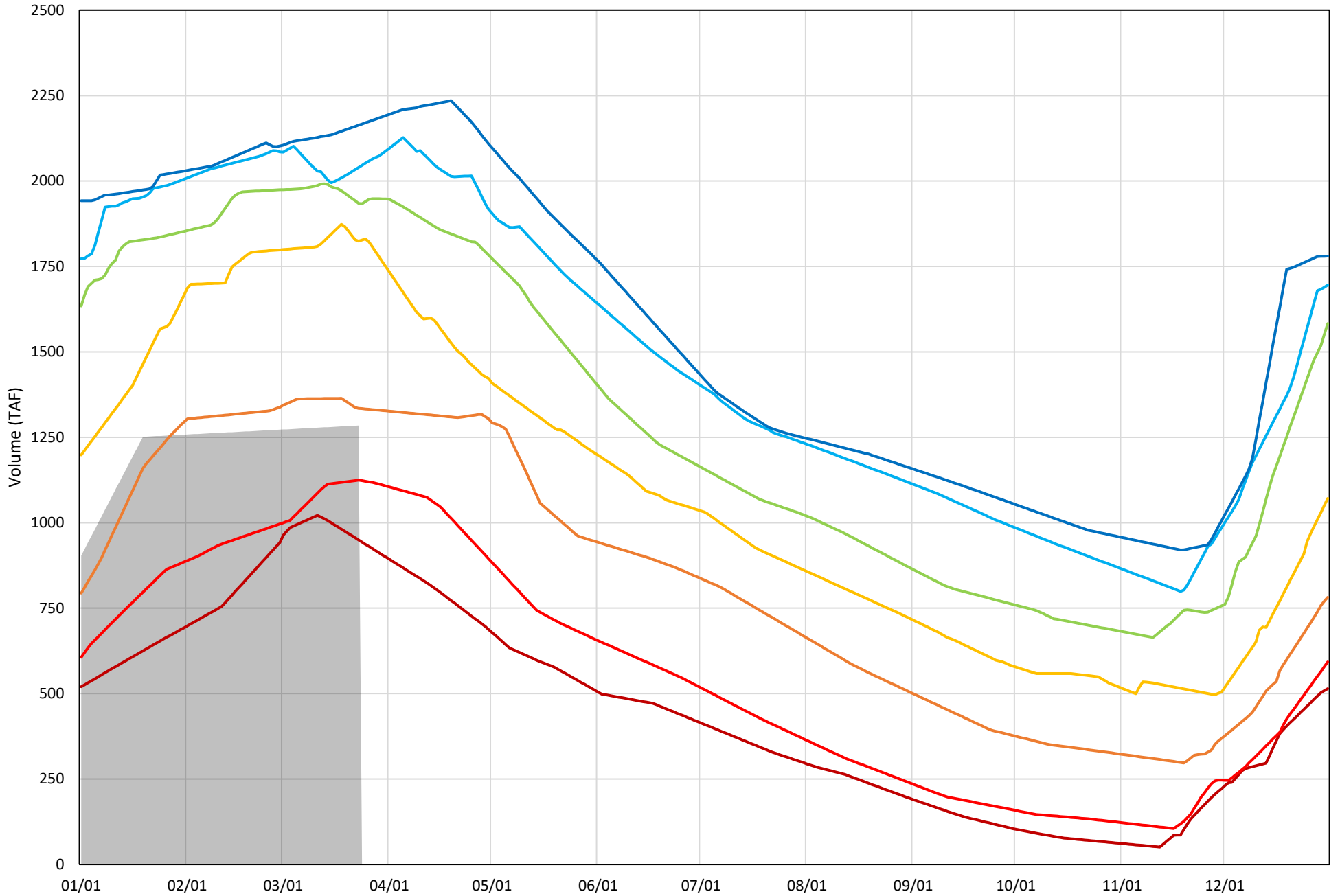


Trinity Lake Cold Water Pool Volume  $\leq 52^{\circ}\text{F}$  - Percent Exceedances (2000-2020)

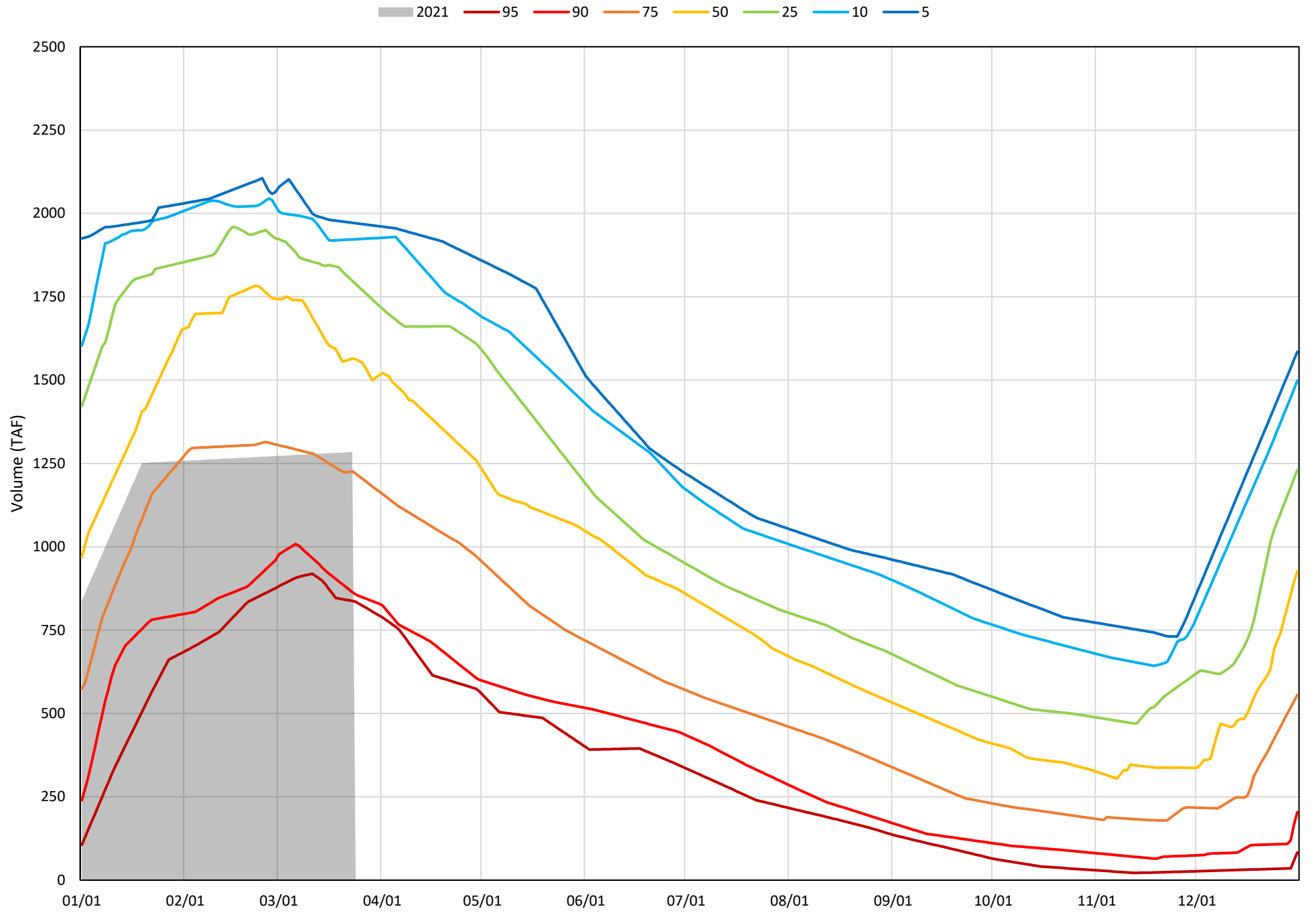


Trinity Lake Cold Water Pool Volume ≤50°F - Percent Exceedances (2000-2020)

2021 95 90 75 50 25 10 5



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)

Mar-24 2021	Δ TAF				% Δ			
	≤52°	≤50°	≤48°	Abs. Avg.	≤52°	≤50°	≤48°	Abs. Avg.
2000	813	658	200	557	63	51	16	43
2001	372	321	248	314	29	25	19	24
2002	540	540	446	509	42	42	35	40
2003	727	703	192	541	57	55	15	42
2004	672	600	524	599	52	47	41	47
2005	443	131	-29	201	35	10	-2	16
2006	891	891	692	825	69	69	54	64
2007	599	530	284	471	47	41	22	37
2008	281	281	281	281	22	22	22	22
2009	-133	-184	-329	215	-10	-14	-26	17
2010	-2	-30	-126	53	0	-2	-10	4
2011	768	768	647	728	60	60	50	57
2012	672	627	600	633	52	49	47	49
2013	772	643	403	606	60	50	31	47
2014	-27	-39	-447	171	-2	-3	-35	13
2015	-224	-352	-443	340	-17	-27	-35	26
2016	-63	-63	-86	70	-5	-5	-7	5
2017	733	680	556	656	57	53	43	51
2018	540	489	450	493	42	38	35	38
2019	637	637	503	592	50	50	39	46
2020	674	582	200	485	52	45	16	38
2021	0	0	0	0	0	0	0	0

Historic - Current

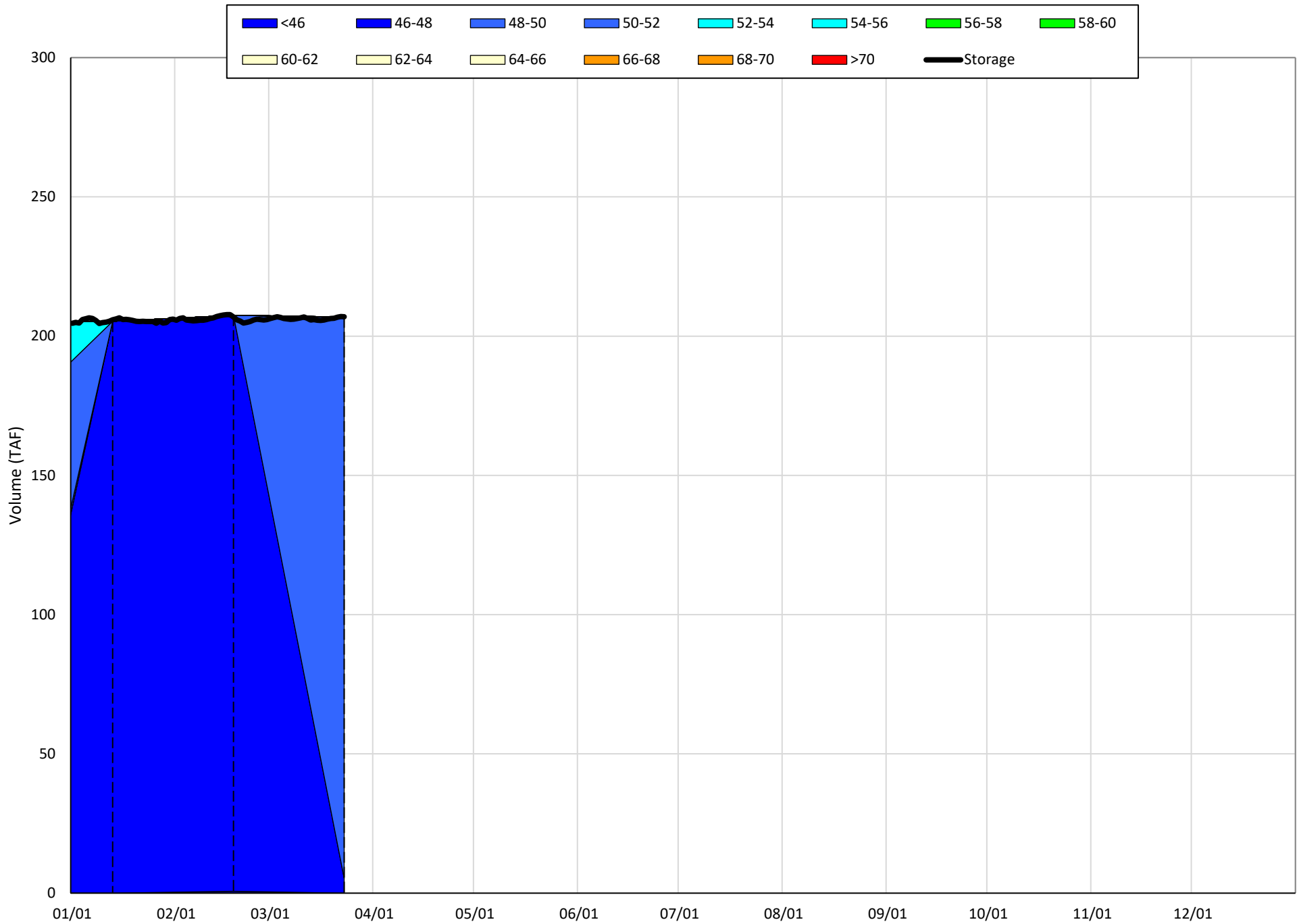
(Historic - Current) / Current

# Whiskeytown Lake Isothermobaths & Cold Water Pool Statistics

## 2021

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

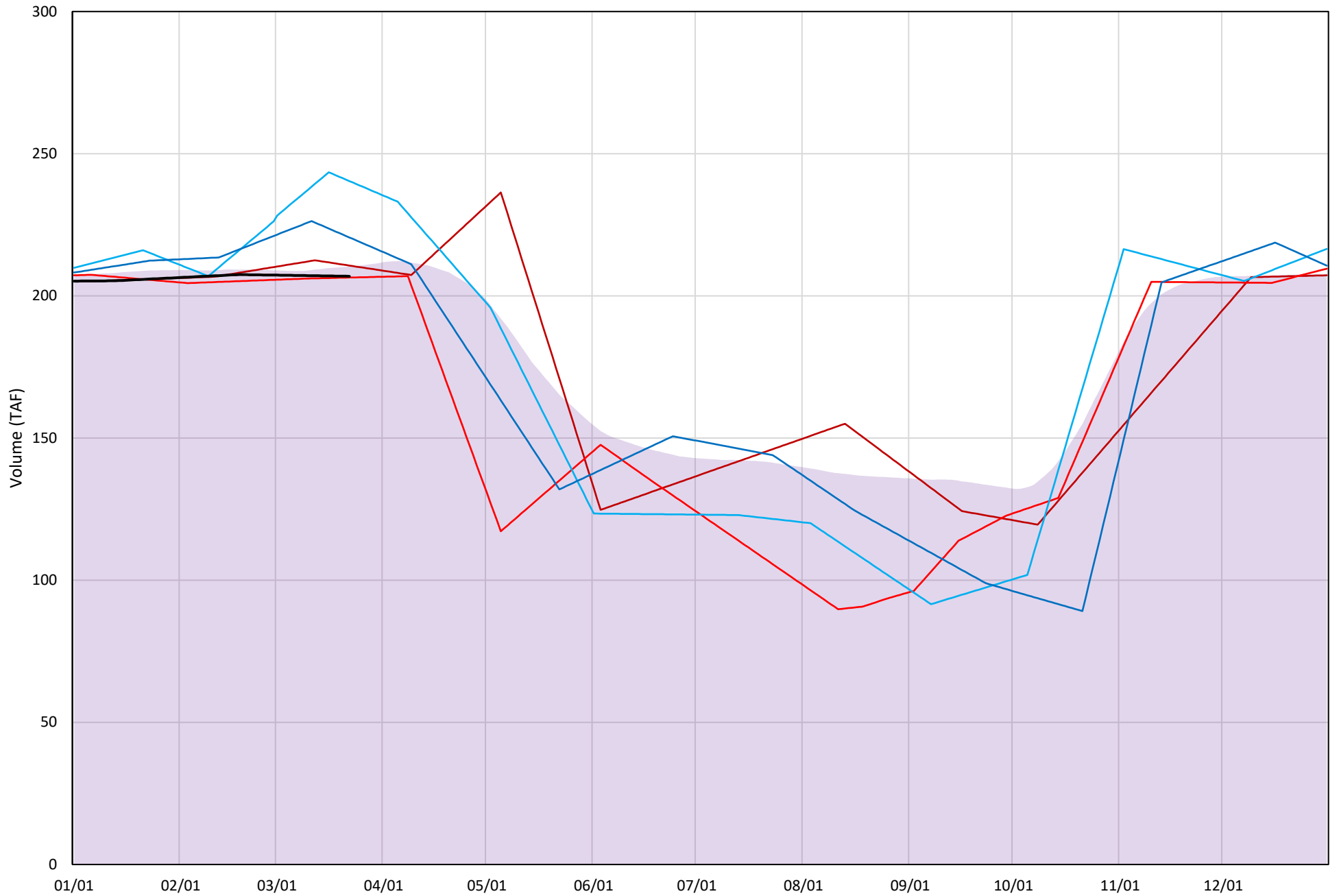
# Whiskeytown Lake Isothermobaths Plot - 2021





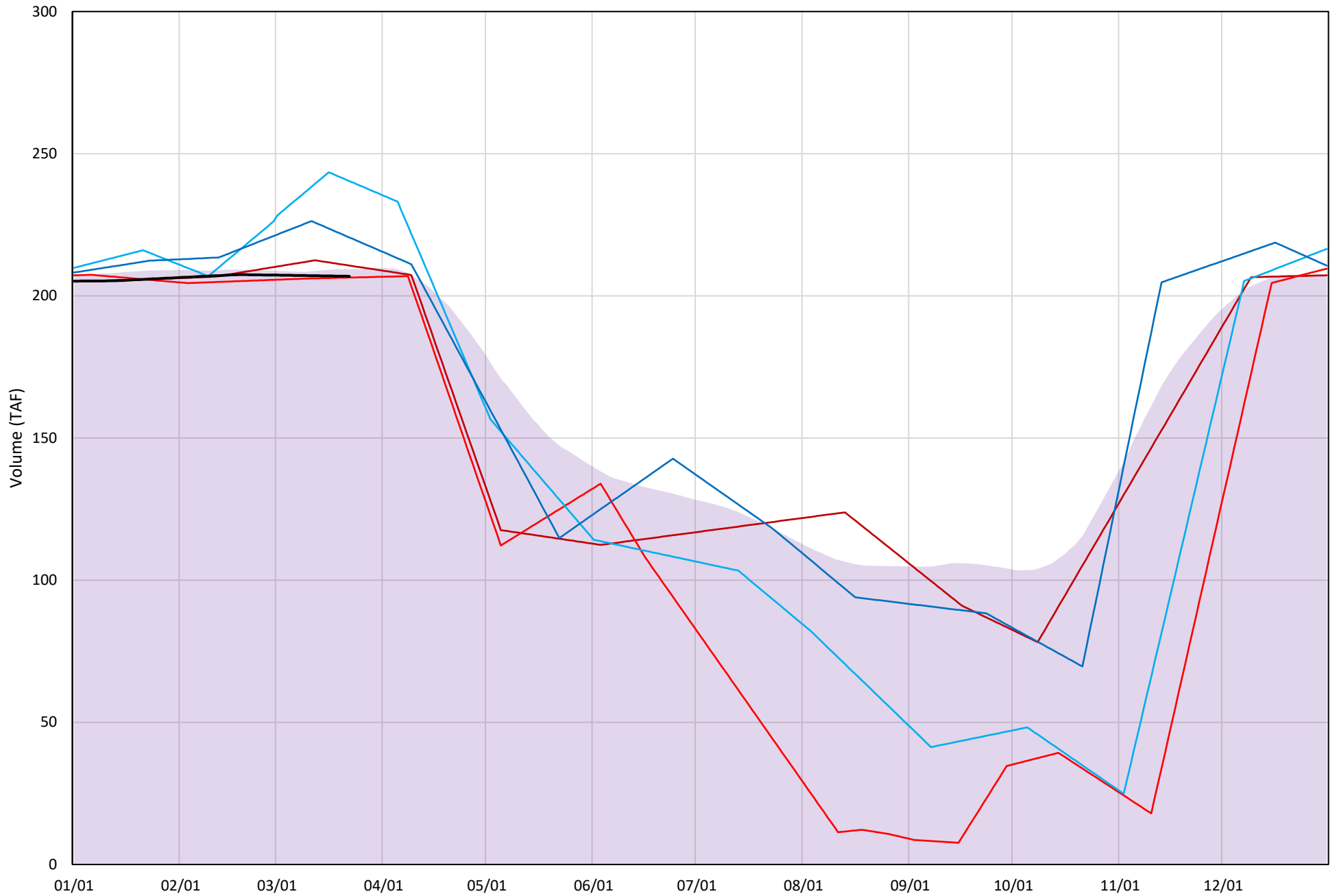
# Whiskeytown Lake Cold Water Pool Volume $\leq 60^{\circ}\text{F}$

Avg (2000-2020) 2014 2015 2016 2019 2021



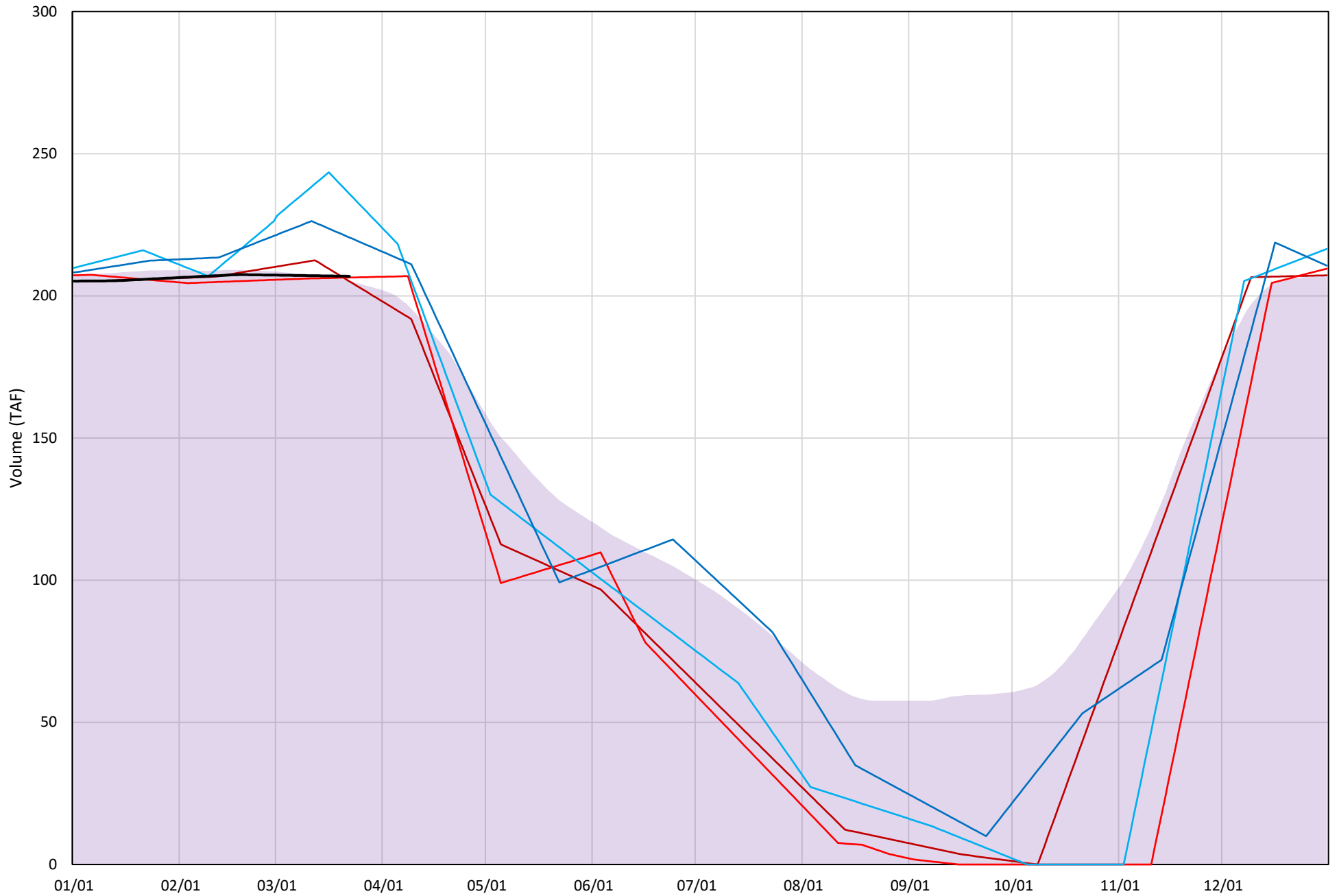
# Whiskeytown Lake Cold Water Pool Volume $\leq 58^{\circ}\text{F}$

Avg (2000-2020) 2014 2015 2016 2019 2021



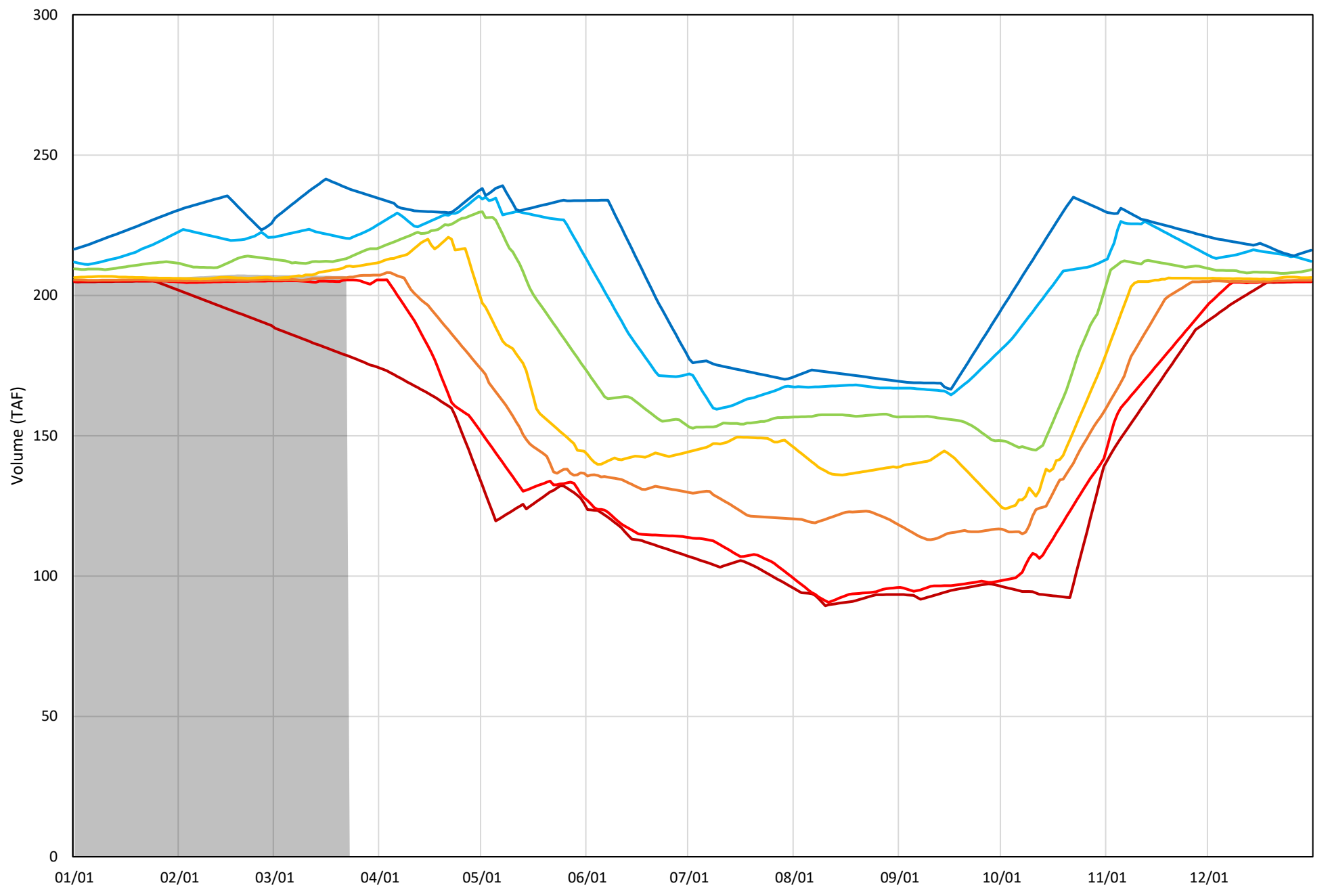
# Whiskeytown Lake Cold Water Pool Volume $\leq 56^{\circ}\text{F}$

Avg (2000-2020) 2014 2015 2016 2019 2021



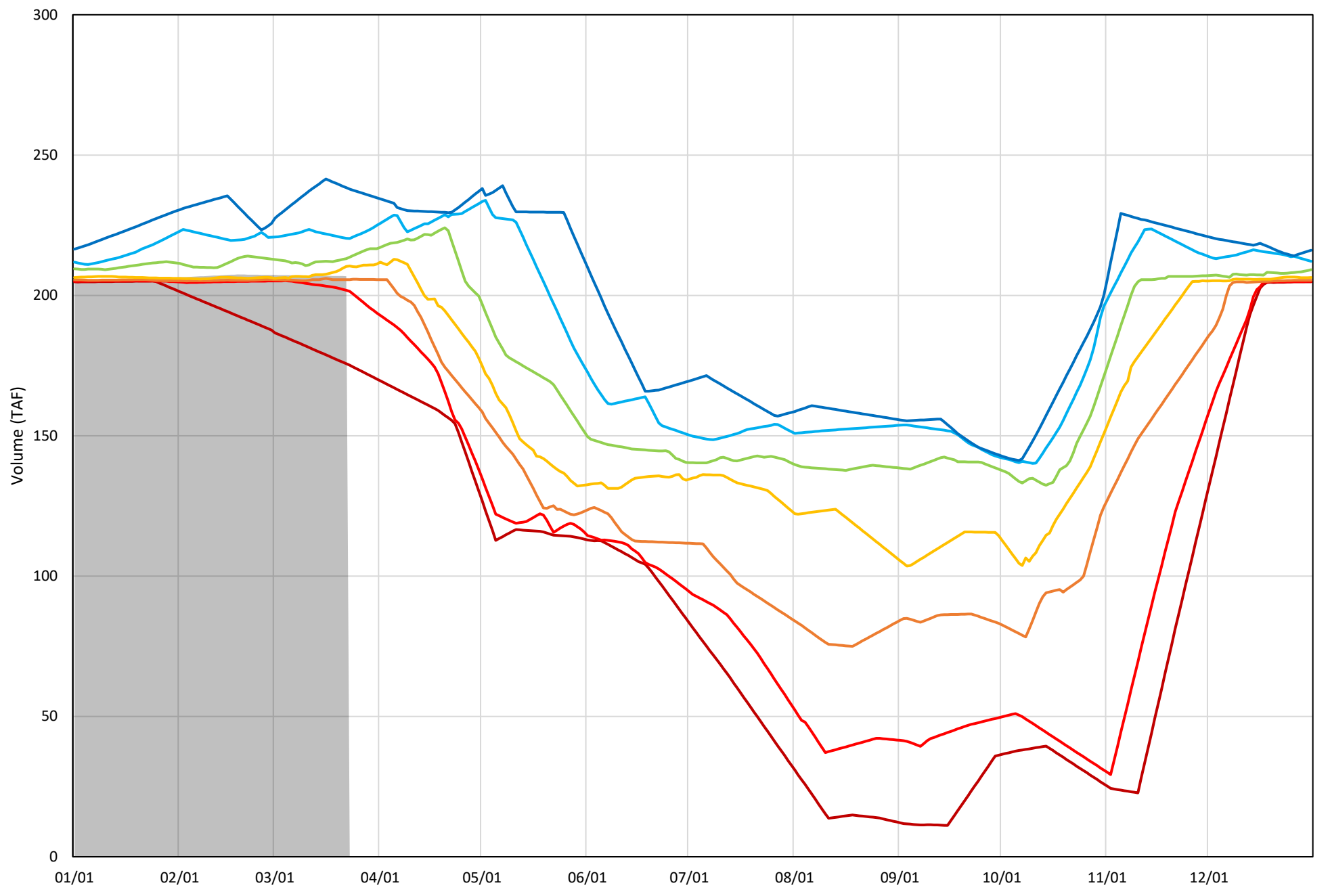
Whiskeytown Lake Cold Water Pool Volume  $\leq 60^{\circ}\text{F}$  - Percent Exceedances (2000-2020)

2021 95 90 75 50 25 10 5



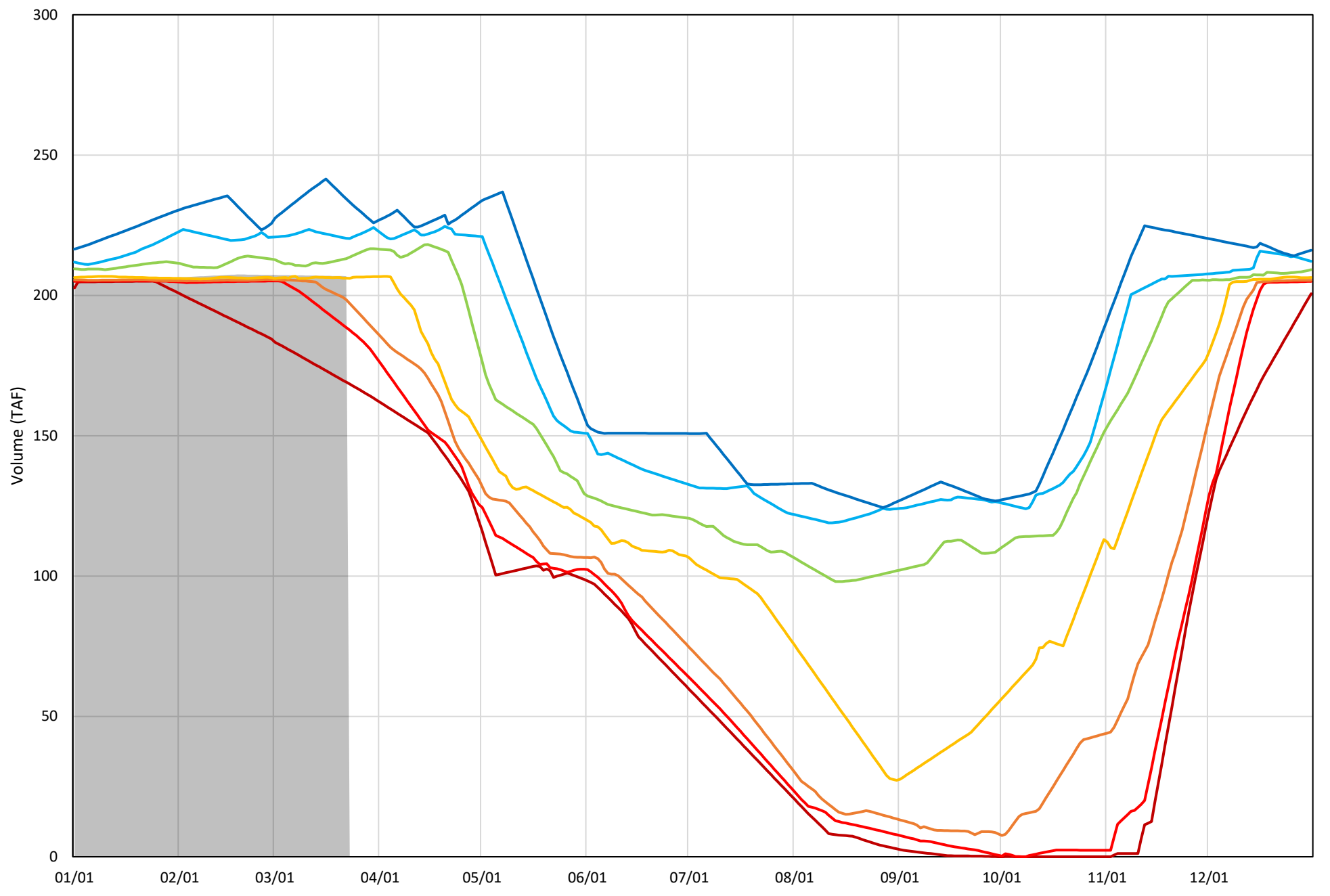
Whiskeytown Lake Cold Water Pool Volume  $\leq 58^{\circ}\text{F}$  - Percent Exceedances (2000-2020)

2021 95 90 75 50 25 10 5



Whiskeytown Lake Cold Water Pool Volume  $\leq 56^{\circ}\text{F}$  - Percent Exceedances (2000-2020)

2021 95 90 75 50 25 10 5



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

Mar-23 2021	Δ TAF				% Δ			
	≤60°	≤58°	≤56°	Abs. Avg.	≤60°	≤58°	≤56°	Abs. Avg.
2000	-1	-1	-4	2	0	0	-2	1
2001	-4	-9	-7	6	-2	-4	-3	3
2002	-5	-8	5	6	-2	-4	3	3
2003	-2	-2	14	6	-1	-1	7	3
2004	-1	-9	-7	6	-1	-4	-4	3
2005	2	2	17	7	1	1	9	3
2006	-5	-5	10	7	-2	-2	5	3
2007	-3	-3	6	4	-2	-2	3	2
2008	0	0	15	5	0	0	8	3
2009	2	2	17	7	1	1	9	3
2010	3	3	19	8	2	2	10	4
2011	8	8	24	14	4	4	12	7
2012	-35	-38	-29	34	-17	-18	-15	17
2013	-6	-6	6	6	-3	-3	3	3
2014	0	0	9	3	0	0	5	2
2015	-5	-5	11	7	-2	-2	5	3
2016	29	29	40	33	14	14	20	16
2017	2	2	18	8	1	1	9	4
2018	-5	-5	10	7	-2	-2	5	3
2019	9	9	25	15	4	4	13	7
2020	0	0	0	0	0	0	0	0

Historic - Current

(Historic - Current) / Current