

Northern CVP Water Temperature Report

June - 2024

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x	- TCD Configuration (External Link)



— BUREAU OF —
RECLAMATION

All Data in this Report is Preliminary and Subject to Change

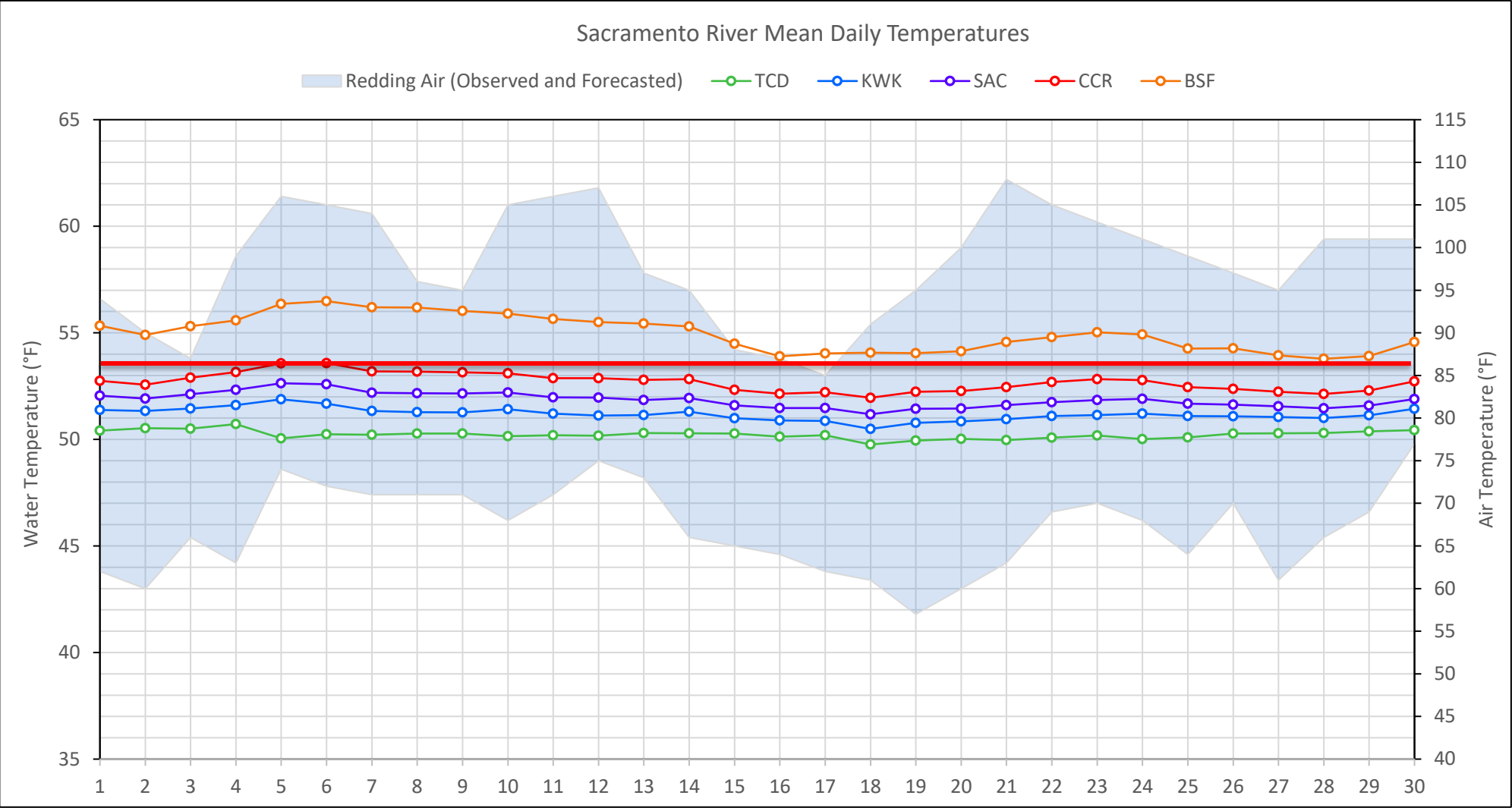
D A T E	Mean Daily Water Temperatures (°F)													Mean Daily Release (CFS)			Mean Daily Air Temperatures (°F)		
	TCD ¹	SHD	SPP ¹	KWK	SAC	CCR ²	BSF	BND	RDB	IGO	LWS	DGC	NFH	Shasta Generation	Spring Creek P.P.	Keswick Total	RDD	BSF	RDB
May	52.5	51.2	49.8	52.9	53.4	54.1	56.2	57.8	59.4	53.5	48.2	49.7	52.8	8168	217	8387	72.1	67.3	68.9
06/01	50.4	49.5	52.5	51.4	52.1	52.7	55.3	57.7	59.9	55.6	48.1	51.1	53.4	8441	977	8729	78.0	74.7	76.5
06/02	50.5	49.2	52.6	51.3	51.9	52.6	54.9	57.1	59.3	55.7	48.4	51.0	53.1	6874	1124	8560	75.0	72.6	73.8
06/03	50.5	49.5	52.8	51.5	52.1	52.9	55.3	57.2	59.0	55.9	48.6	51.6	53.6	7794	1073	8576	76.5	75.9	74.0
06/04	50.7	49.7	52.7	51.6	52.3	53.2	55.6	57.7	59.7	56.8	48.8	52.0	53.8	7764	1419	8436	81.0	78.0	81.2
06/05	50.0	49.0	52.9	51.9	52.6	53.6	56.4	58.7	61.0	57.8	48.5	52.1	54.9	7574	1529	8490	90.0	83.3	85.2
06/06	50.2	49.1	53.1	51.7	52.6	53.6	56.5	59.2	61.6	57.9	48.5	52.3	55.1	6937	1628	8498	88.5	83.5	84.5
06/07	50.2	49.0	53.1	51.3	52.2	53.2	56.2	59.1	61.7	58.1	48.4	52.3	55.2	7497	1586	9267	87.5	82.3	82.2
06/08	50.3	49.0	53.2	51.3	52.2	53.2	56.2	59.0	61.5	57.9	48.5	52.4	55.1	7348	1094	8313	83.5	78.0	76.8
06/09	50.3	49.1	53.4	51.3	52.2	53.1	56.0	58.9	61.4	57.7	48.8	52.6	55.3	7002	1077	8408	83.0	77.9	76.5
06/10	50.2	49.1	53.5	51.4	52.2	53.1	55.9	58.6	61.0	57.8	!	!	!	7939	1138	8491	86.5	81.5	81.9
06/11	50.2	49.1	53.7	51.2	52.0	52.9	55.6	58.4	61.0	57.8	48.8	52.9	56.1	8252	1156	9013	88.5	84.1	85.0
06/12	50.2	49.2	53.7	51.1	52.0	52.9	55.5	58.1	60.5	58.1	48.8	52.9	56.0	8119	1016	8894	91.0	84.3	85.2
06/13	50.3	49.1	53.8	51.1	51.8	52.8	55.4	58.1	60.6	57.0	48.9	52.8	55.8	8319	1307	8857	85.0	79.0	78.0
06/14	50.3	49.1	54.0	51.3	51.9	52.8	55.3	57.7	60.2	54.4	48.8	52.4	55.2	8288	1047	8891	80.5	75.9	75.7
06/15	50.3	49.2	54.0	51.0	51.6	52.3	54.5	56.6	58.6	53.2	49.0	52.1	54.3	8518	904	8876	76.5	69.4	73.8
06/16	50.1	49.2	54.3	50.9	51.5	52.1	53.9	55.7	57.7	53.2	48.9	52.0	54.2	7562	1036	8895	75.5	72.8	75.1
06/17	50.2	49.0	54.3	50.9	51.5	52.2	54.0	55.5	57.2	53.3	49.2	52.0	54.1	7236	991	8916	73.5	68.3	70.7
06/18	49.8	49.1	54.1	50.5	51.2	52.0	54.1	55.8	57.6	54.1	48.8	52.3	54.9	8361	538	8999	76.0	72.1	73.0
06/19	49.9	49.4	54.4	50.8	51.4	52.2	54.0	55.7	57.6	55.2	48.5	52.0	54.7	8408	913	8786	76.0	70.9	71.6
06/20	50.0	49.5	54.5	50.8	51.4	52.3	54.1	56.0	58.0	55.5	48.4	52.2	55.1	8663	978	9406	80.0	73.6	73.0
06/21	50.0	49.4	54.5	50.9	51.6	52.5	54.6	56.5	58.5	56.5	48.5	52.7	56.1	9790	999	9912	85.5	79.9	79.2
06/22	50.1	49.4	54.6	51.1	51.7	52.7	54.8	56.9	59.2	57.1	48.6	53.3	57.2	9567	1282	9922	87.0	81.3	81.2
06/23	50.2	49.6	54.6	51.1	51.9	52.8	55.0	57.2	59.5	57.1	48.8	53.5	57.4	9703	960	9975	86.5	81.1	82.6
06/24	50.0	49.4	54.8	51.2	51.9	52.8	54.9	57.0	59.3	57.5	49.1	53.9	57.8	8821	1021	9969	84.5	78.7	79.3
06/25	50.1	49.5	54.7	51.1	51.7	52.5	54.3	56.4	58.5	56.8	49.2	53.3	!	9104	1030	9905	81.5	75.8	77.4
06/26	50.3	49.7	54.9	51.1	51.6	52.4	54.3	56.3	58.1	58.0	49.3	54.3	!	10922	1544	11865	83.5	77.8	76.6
06/27	50.3	49.7	55.0	51.1	51.5	52.2	53.9	55.8	57.5	57.3	49.5	53.9	!	11458	982	11942	78.0	75.2	76.5
06/28	50.3	49.7	55.0	51.0	51.5	52.1	53.8	55.5	57.0	57.8	49.8	54.6	58.1	11917	1061	11989	83.5	78.3	78.3
06/29	50.4	49.8	55.0	51.1	51.6	52.3	53.9	55.7	57.4	58.1	49.6	55.0	58.9	11574	1110	11949	85.0	79.6	81.2
06/30	50.4	49.8	55.1	51.4	51.9	52.7	54.6	56.3	58.0	58.4	50.1	55.1	59.1	11212	1265	11861	89.0	83.2	85.1
-																			
Jun	50.2	49.3	54.0	51.2	51.9	52.7	55.0	57.1	59.3	56.6	48.9	52.8	55.6	8699	1126	9486	82.5	77.6	78.4
														Total CFS	260964	33785	284590		
														Total AF	517611	67011	564473		

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

- ¹ 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
- ² Current Clear Creek River control point (see page 3 for more details)



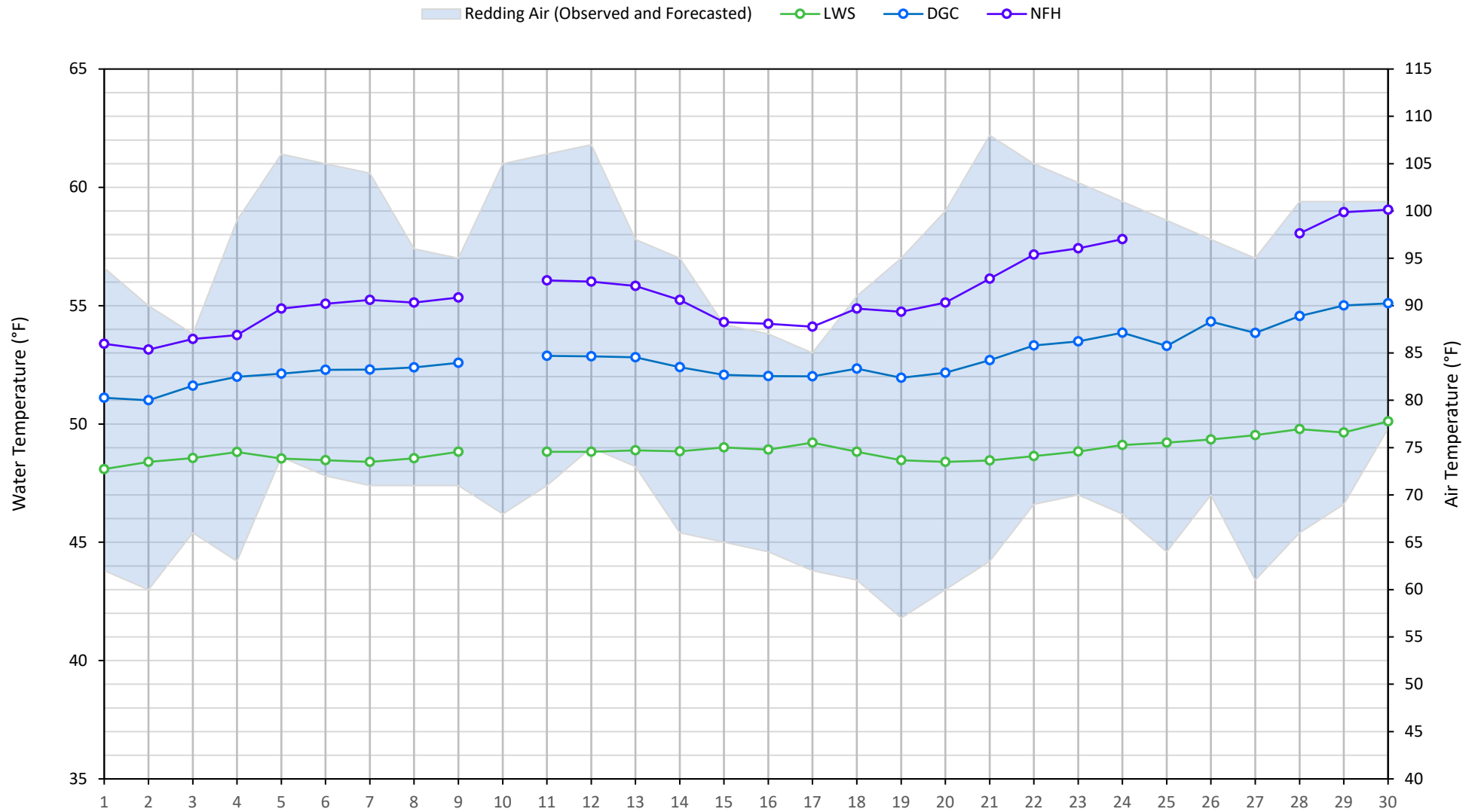
Station Details			
Code	Body of Water	Location ¹	CDEC Link
TCD	N/A	Shasta Power Plant	N/A
SHD	Sacramento River	0.3 miles downstream of Shasta Power Plant	Click Here
SPP	N/A	Spring Creek Power Plant	N/A
KWK	Sacramento River	0.8 miles downstream of Keswick Dam	Click Here
SAC	Sacramento River	4.8 miles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

Water Right Temperature Control Points				
River	Point	Temp. (°F)	Begin Date	End Date
Sacramento	CCR	53.5	05/24/2024	TBD

Notes

¹ Distances are approximate

Trinity River Mean Daily Temperatures



Station Details

Code	Body of Water	Location ¹	CDEC Link
LWS	Trinity River	1.1 miles downstream of Lewiston Dam	Click Here
DGC	Trinity River	19 miles downstream of Lewiston Dam	Click Here
NFH	Trinity River	38 miles downstream of Lewiston Dam	Click Here

Water Right Temperature Control Points

River	Point	Temp. (°F)	Begin Date	End Date

Notes

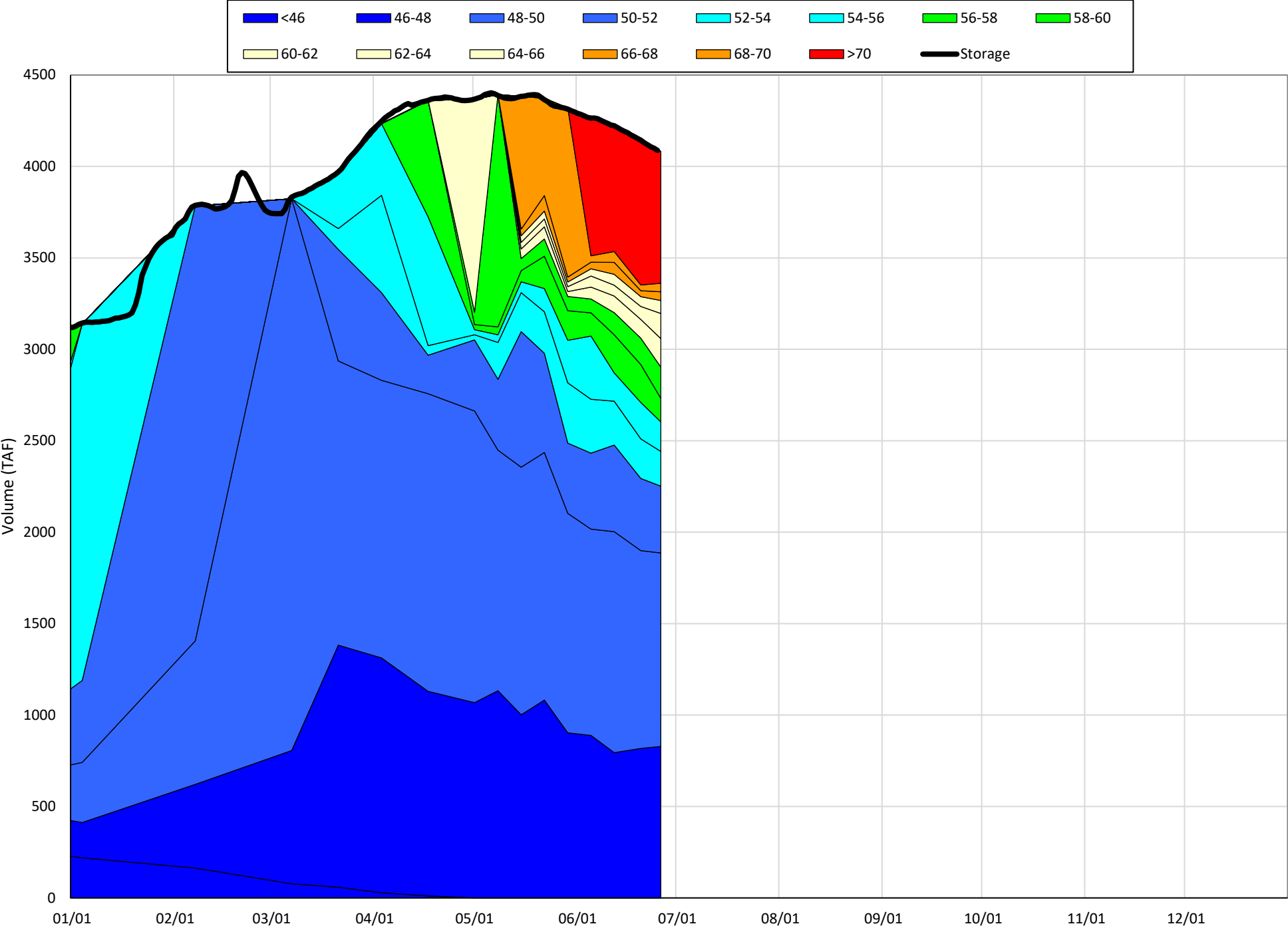
¹ Distances are approximate

Shasta Lake Isothermobaths & Cold Water Pool Statistics

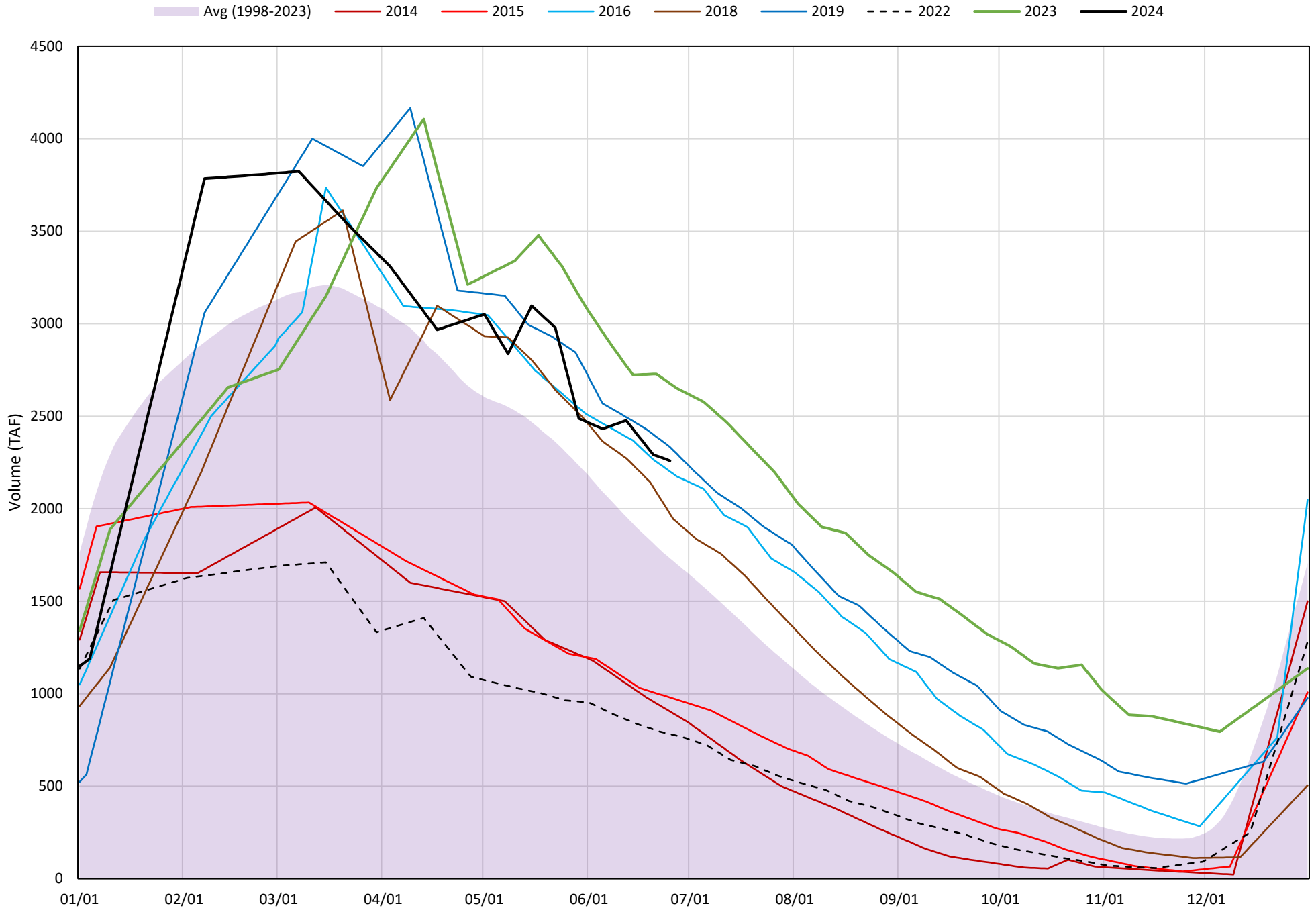
2024

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10	- Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - Percent Exceedances
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12	- Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$ - Percent Exceedances
13	- Shasta Lake Cold Water Pool Comparison by Year

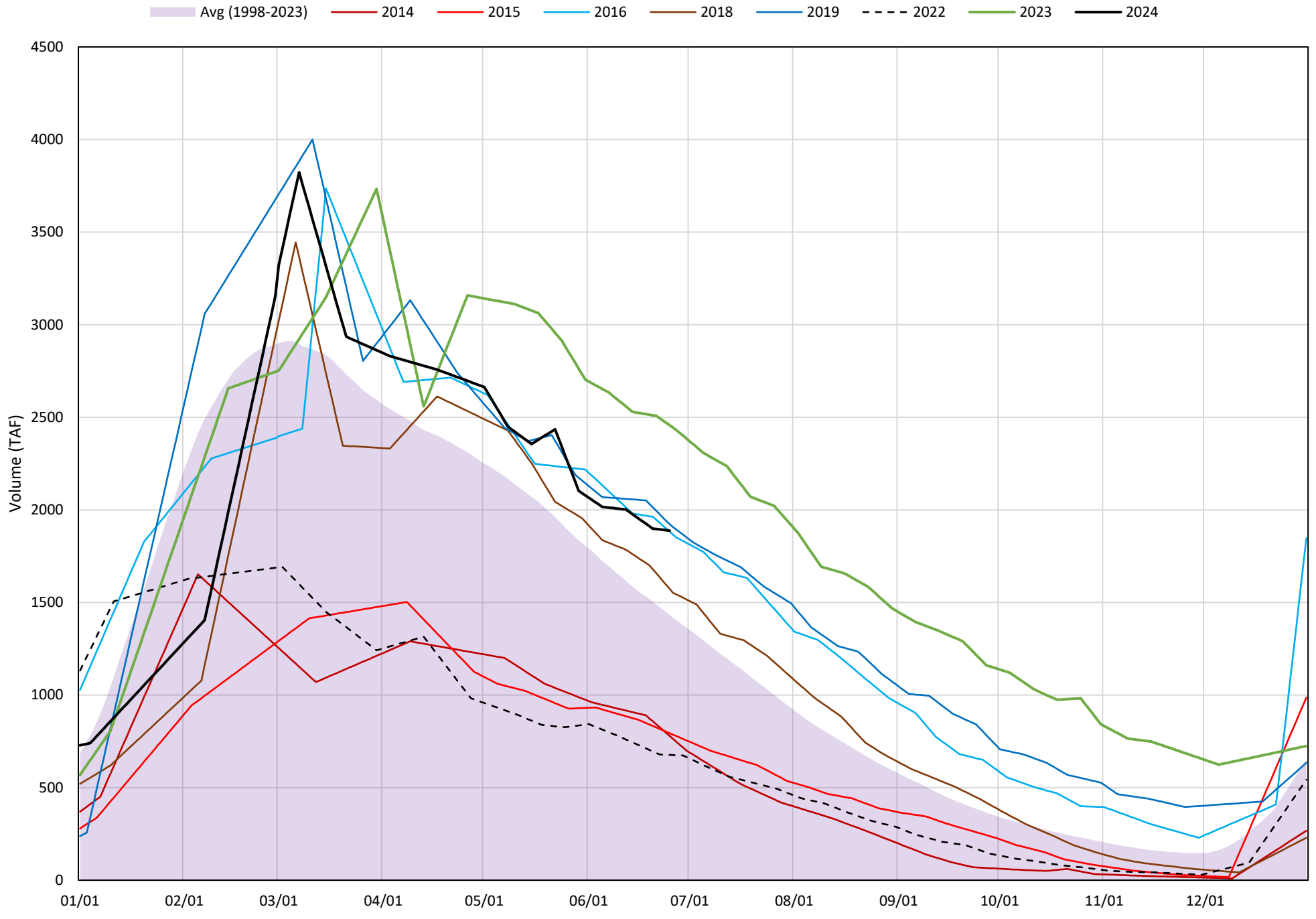
Shasta Lake Isothermobaths Plot - 2024



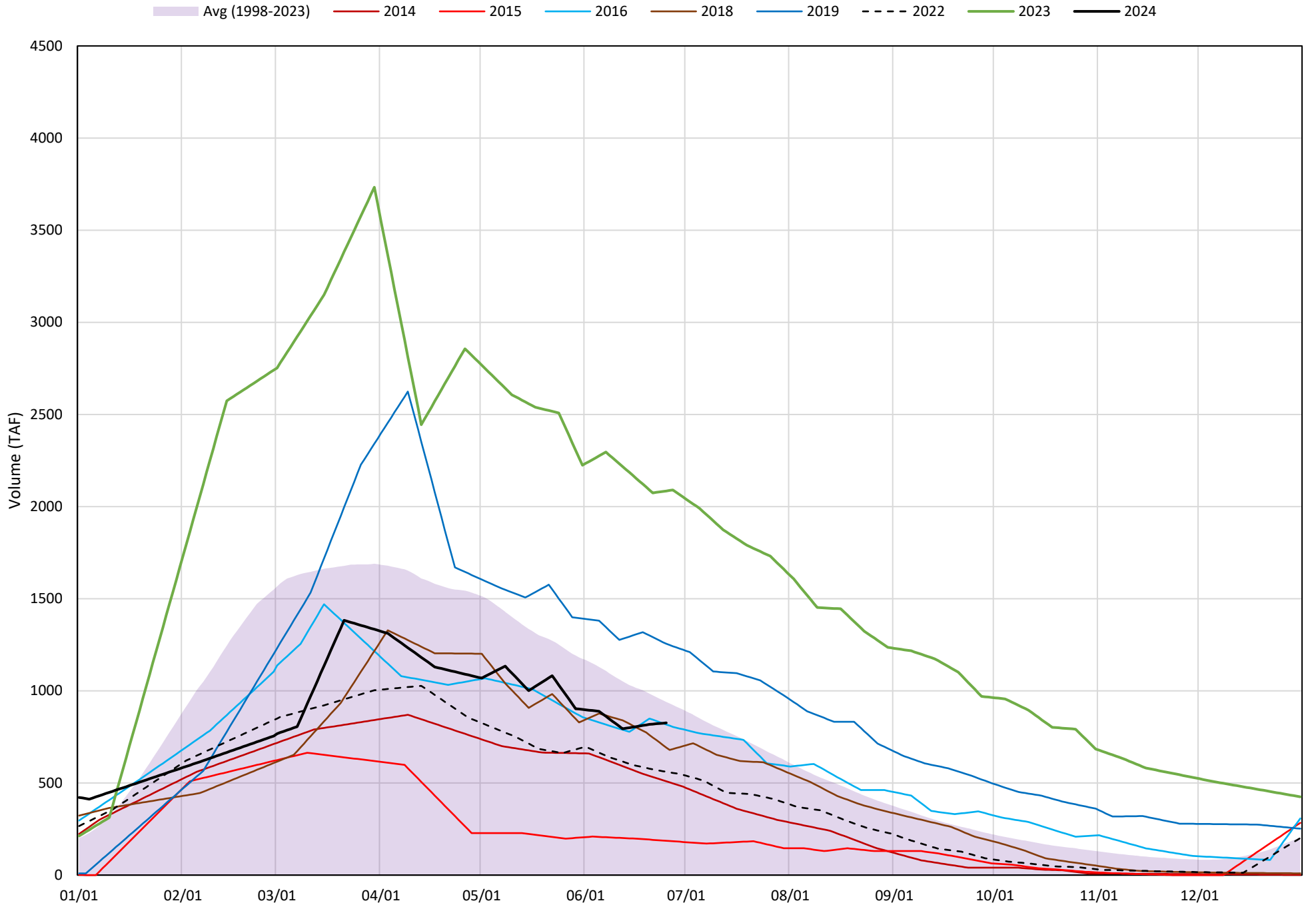
Shasta Lake Cold Water Pool Volume ≤52°F



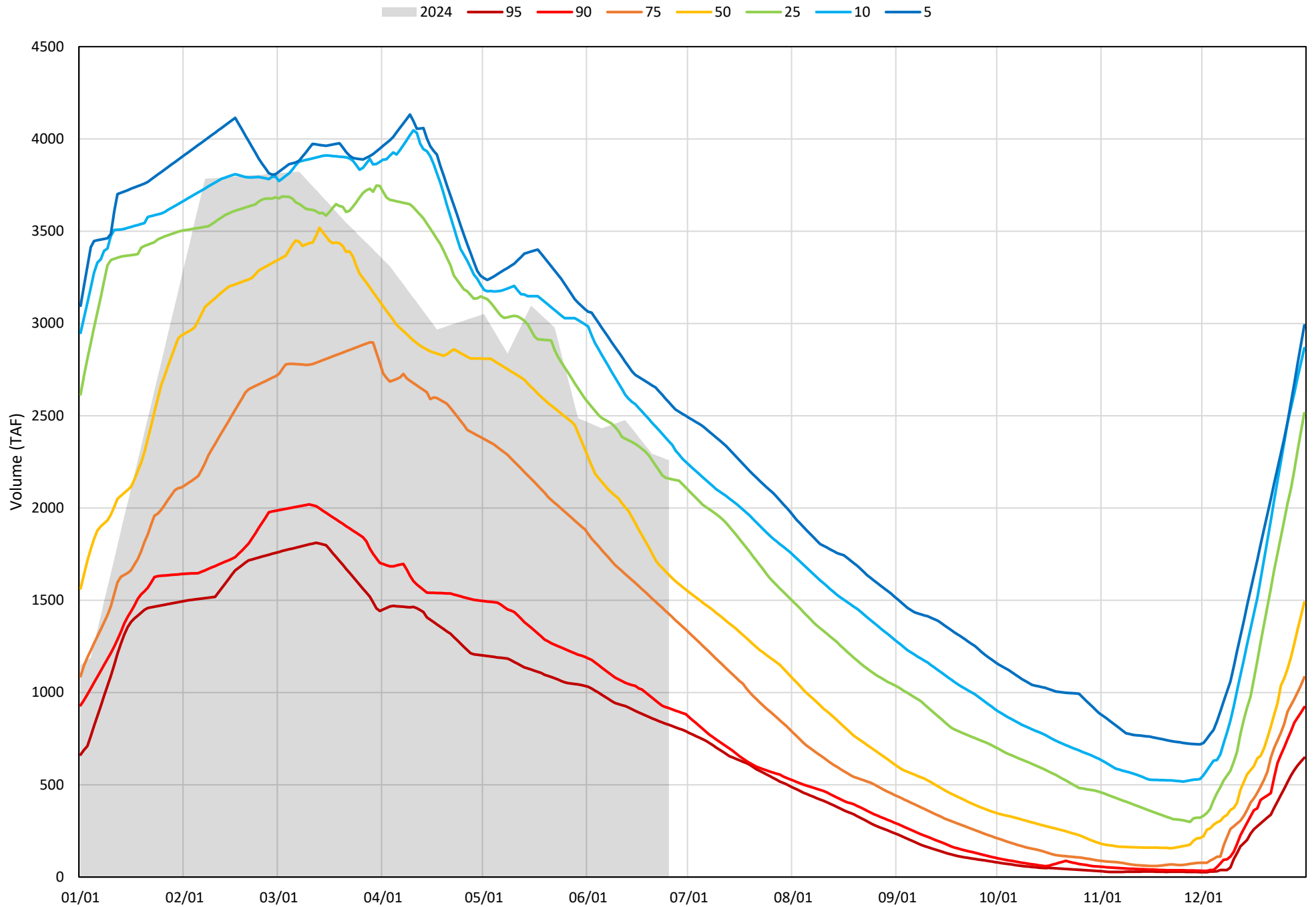
Shasta Lake Cold Water Pool Volume ≤50°F



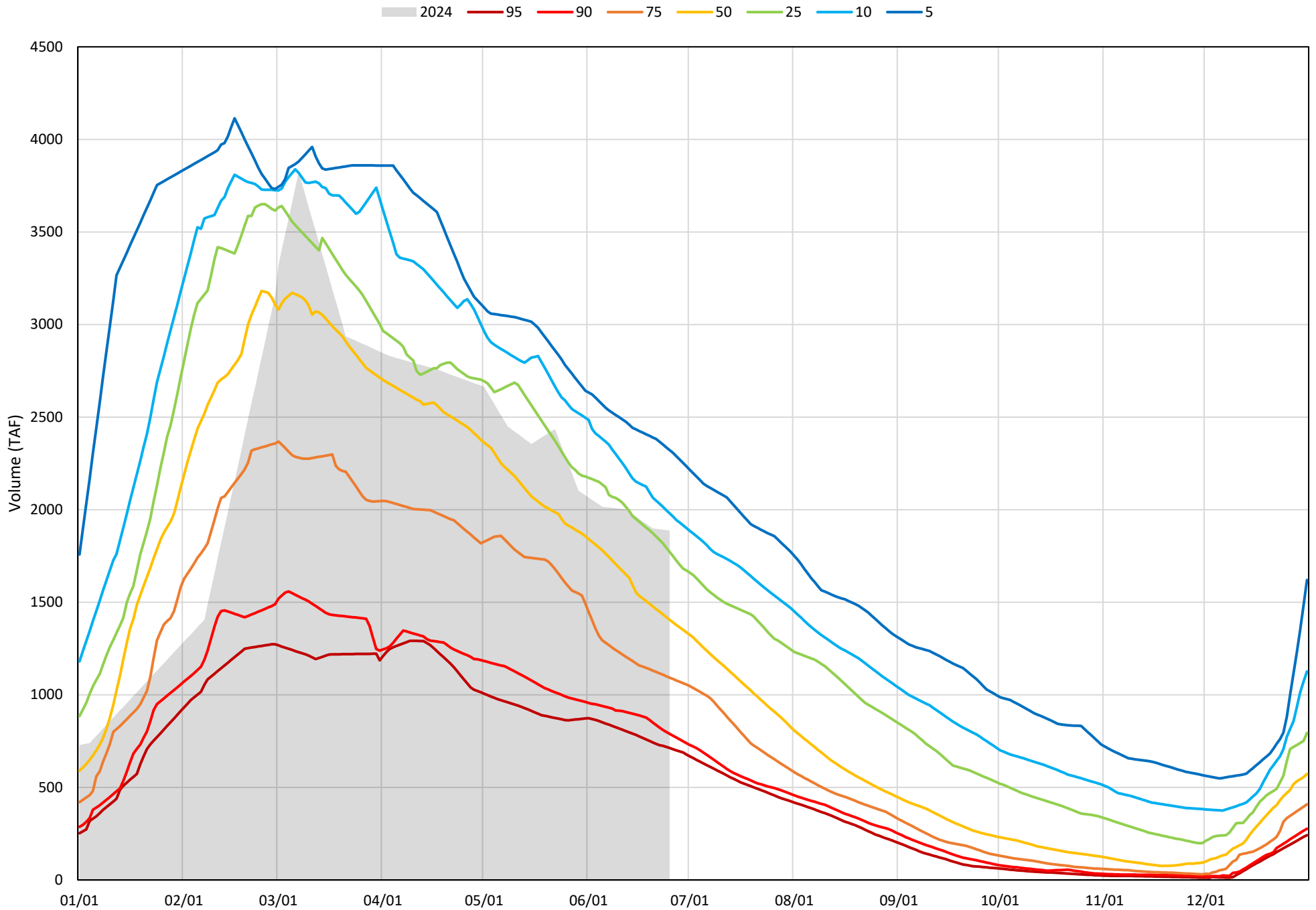
Shasta Lake Cold Water Pool Volume ≤48°F



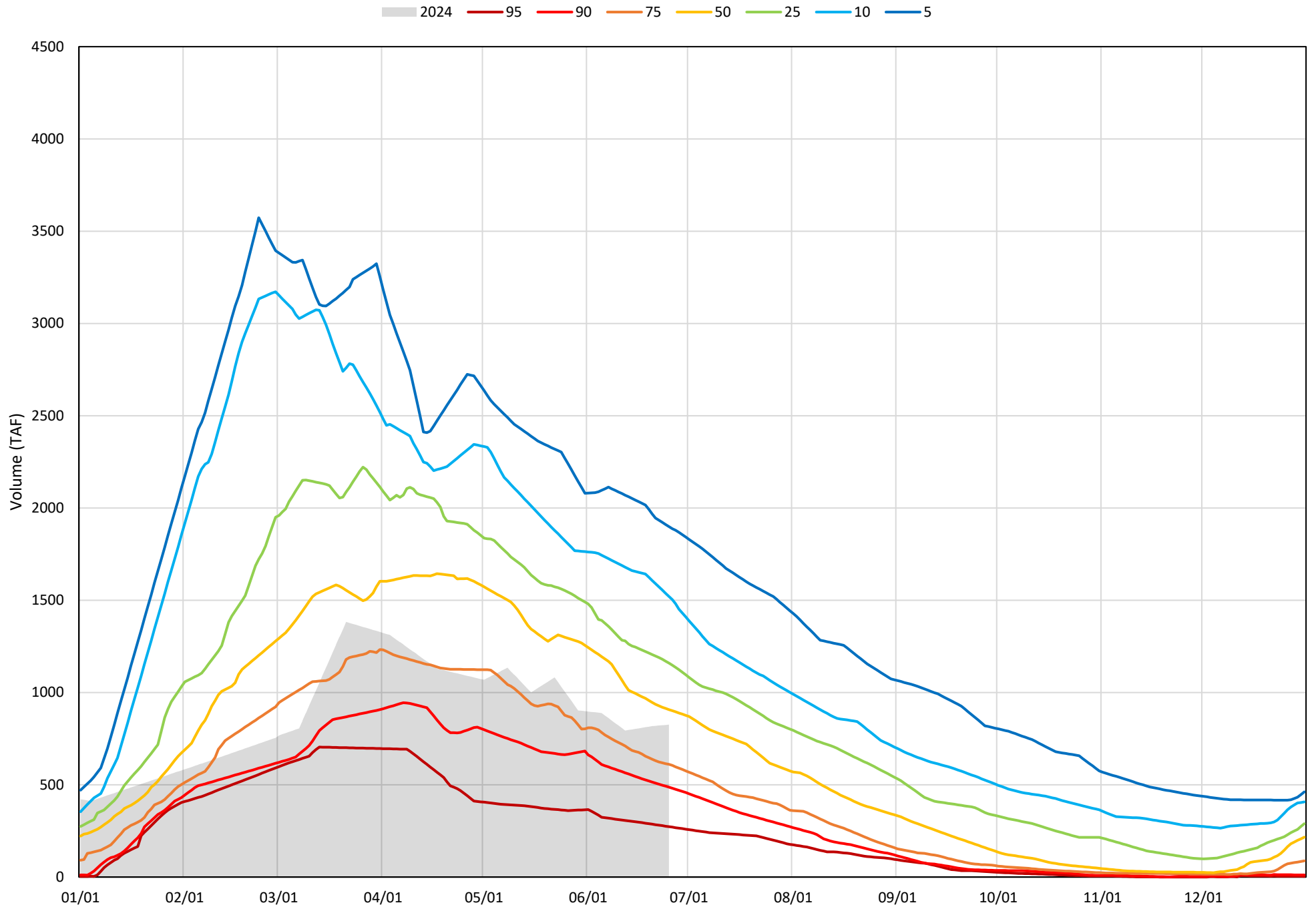
Shasta Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - Percent Exceedances (1998-2023)



Shasta Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$ - Percent Exceedances (1998-2023)



Shasta Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$ - Percent Exceedances (1998-2023)



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

Jun-26 2024	Δ TAF				% Δ			
	$\leq 52^\circ$	$\leq 50^\circ$	$\leq 48^\circ$	Abs. Avg.	$\leq 52^\circ$	$\leq 50^\circ$	$\leq 48^\circ$	Abs. Avg.
1998	-332	-509	-89	310	-15	-27	-11	17
1999	-163	-43	728	311	-7	-2	88	33
2000	-655	-664	-230	516	-29	-35	-28	31
2001	-659	-458	342	486	-29	-24	41	32
2002	-359	-226	331	305	-16	-12	40	23
2003	-610	-876	-392	626	-27	-46	-47	40
2004	-795	-689	63	516	-35	-37	8	26
2005	-665	-627	-209	500	-29	-33	-25	29
2006	-212	-199	284	232	-9	-11	34	18
2007	-632	-434	279	448	-28	-23	34	28
2008	-1096	-834	69	666	-49	-44	8	34
2009	-949	-782	94	608	-42	-41	11	32
2010	-21	-141	272	145	-1	-7	33	14
2011	119	54	681	285	5	3	82	30
2012	95	181	455	244	4	10	55	23
2013	-707	-507	189	468	-31	-27	23	27
2014	-1355	-1109	-317	927	-60	-59	-38	52
2015	-1280	-1094	-640	1004	-57	-58	-77	64
2016	-58	-5	-9	24	-3	0	-1	1
2017	-113	-236	269	206	-5	-13	33	17
2018	-287	-314	-134	245	-13	-17	-16	15
2019	74	34	429	179	3	2	52	19
2020	-641	-614	-210	488	-28	-33	-25	29
2021	-1340	-1090	-283	904	-59	-58	-34	50
2022	-1477	-1211	-265	985	-65	-64	-32	54
2023	418	569	1259	749	19	30	152	67
2024	0	0	0	0	0	0	0	0

Historical - Current

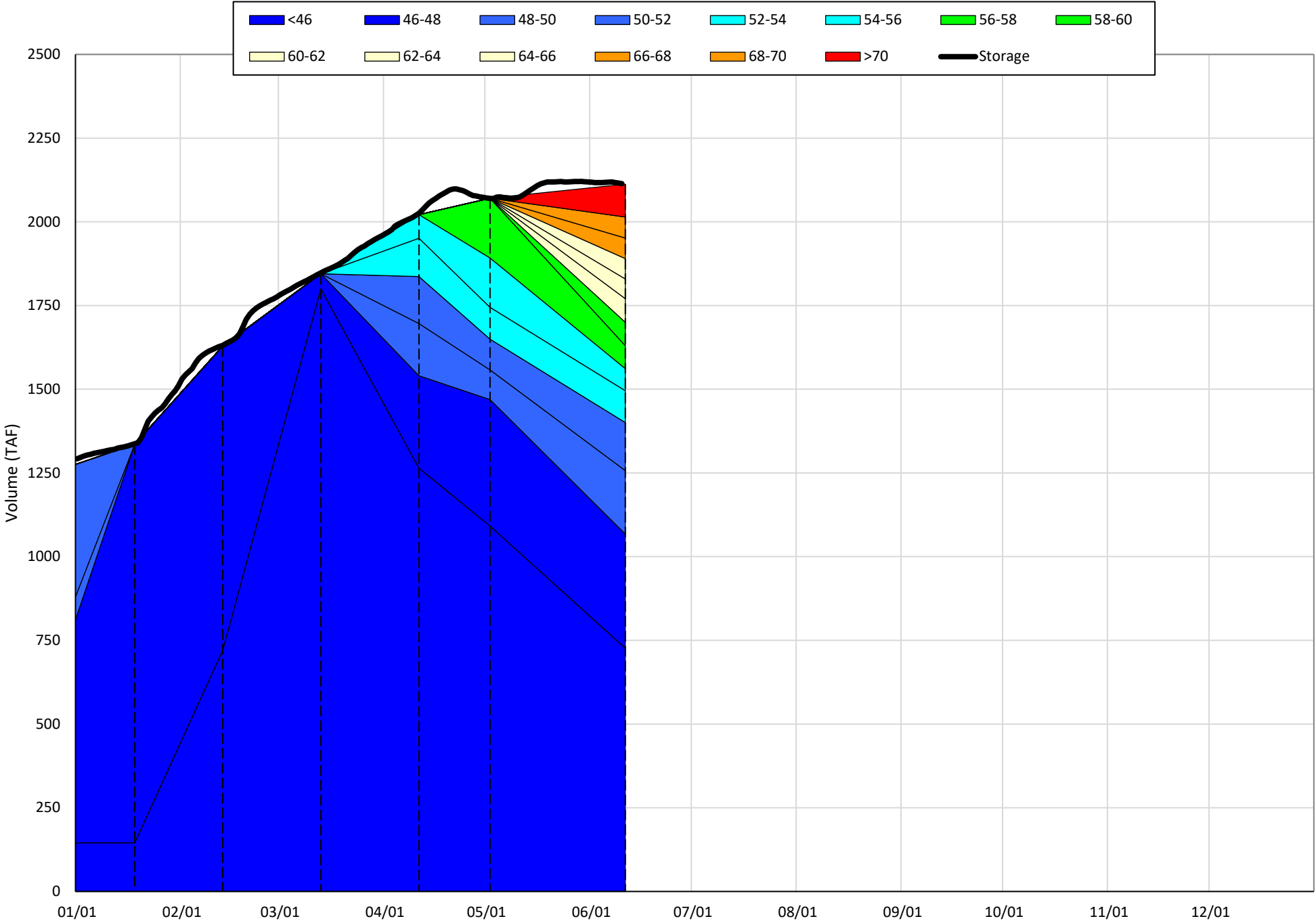
(Historical - Current) / Current

Trinity Lake Isothermobaths & Cold Water Pool Statistics

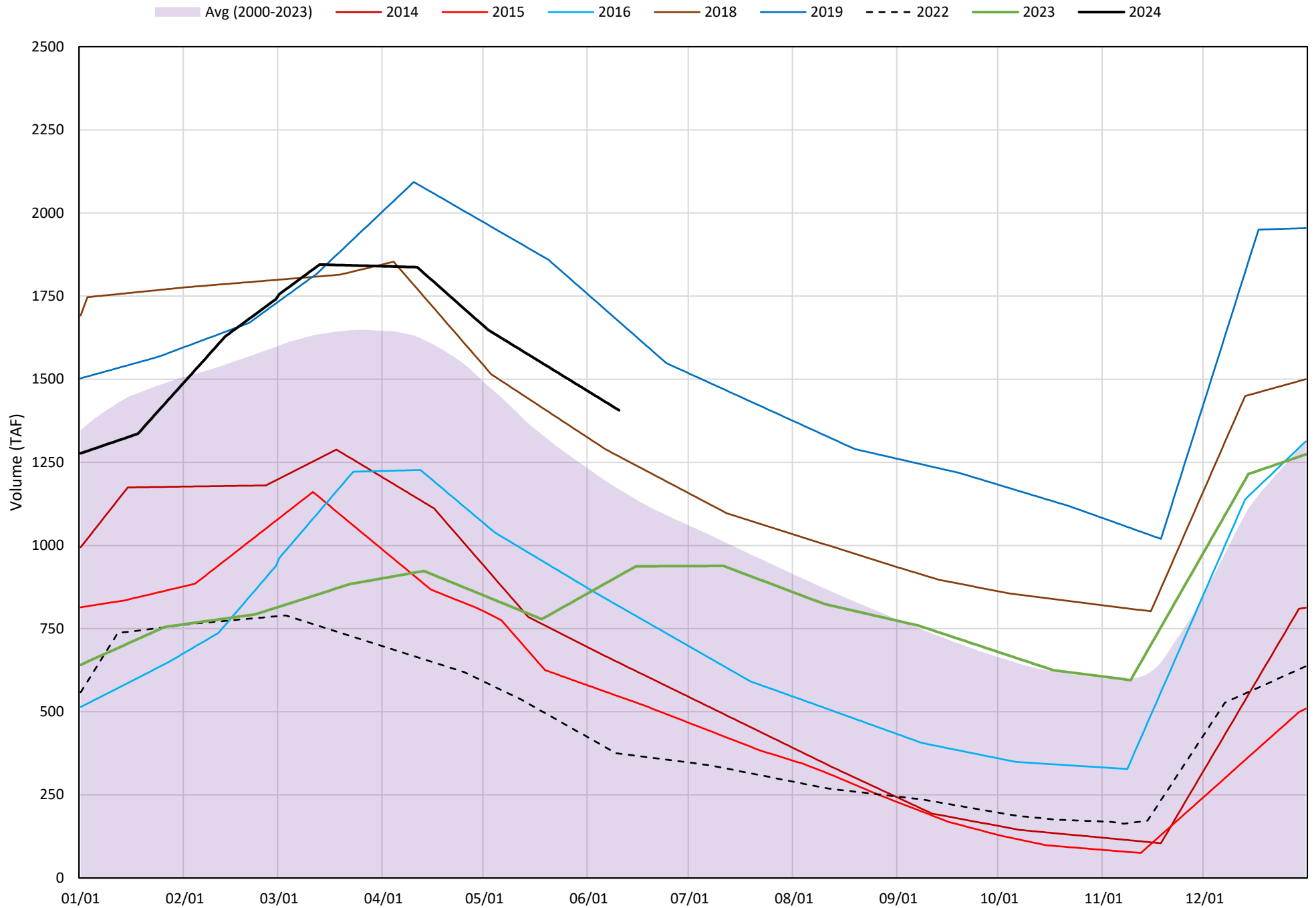
2024

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15	- Trinity Lake Isothermobaths Plot
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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

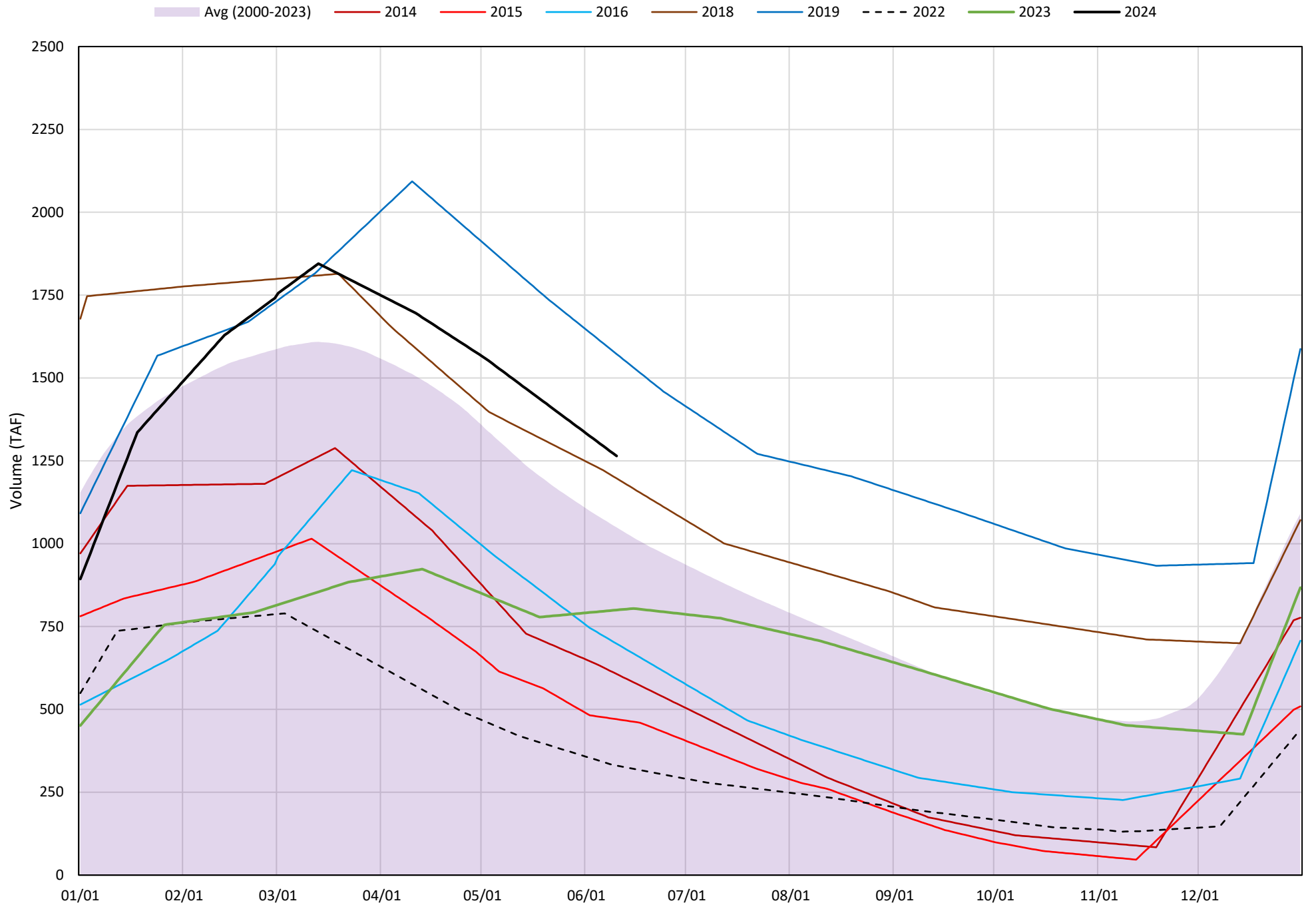
Trinity Lake Isothermobaths Plot - 2024



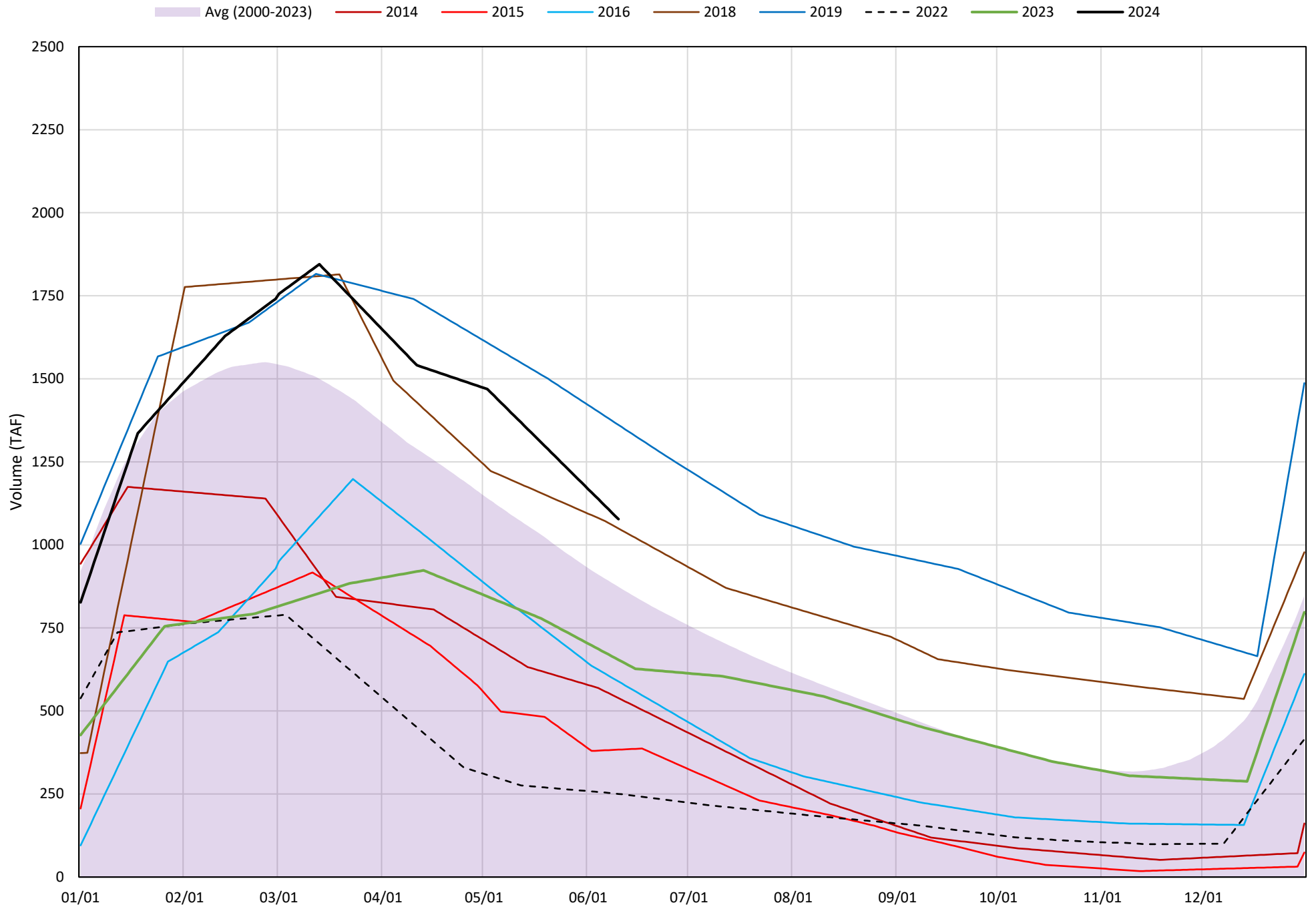
Trinity Lake Cold Water Pool Volume ≤52°F



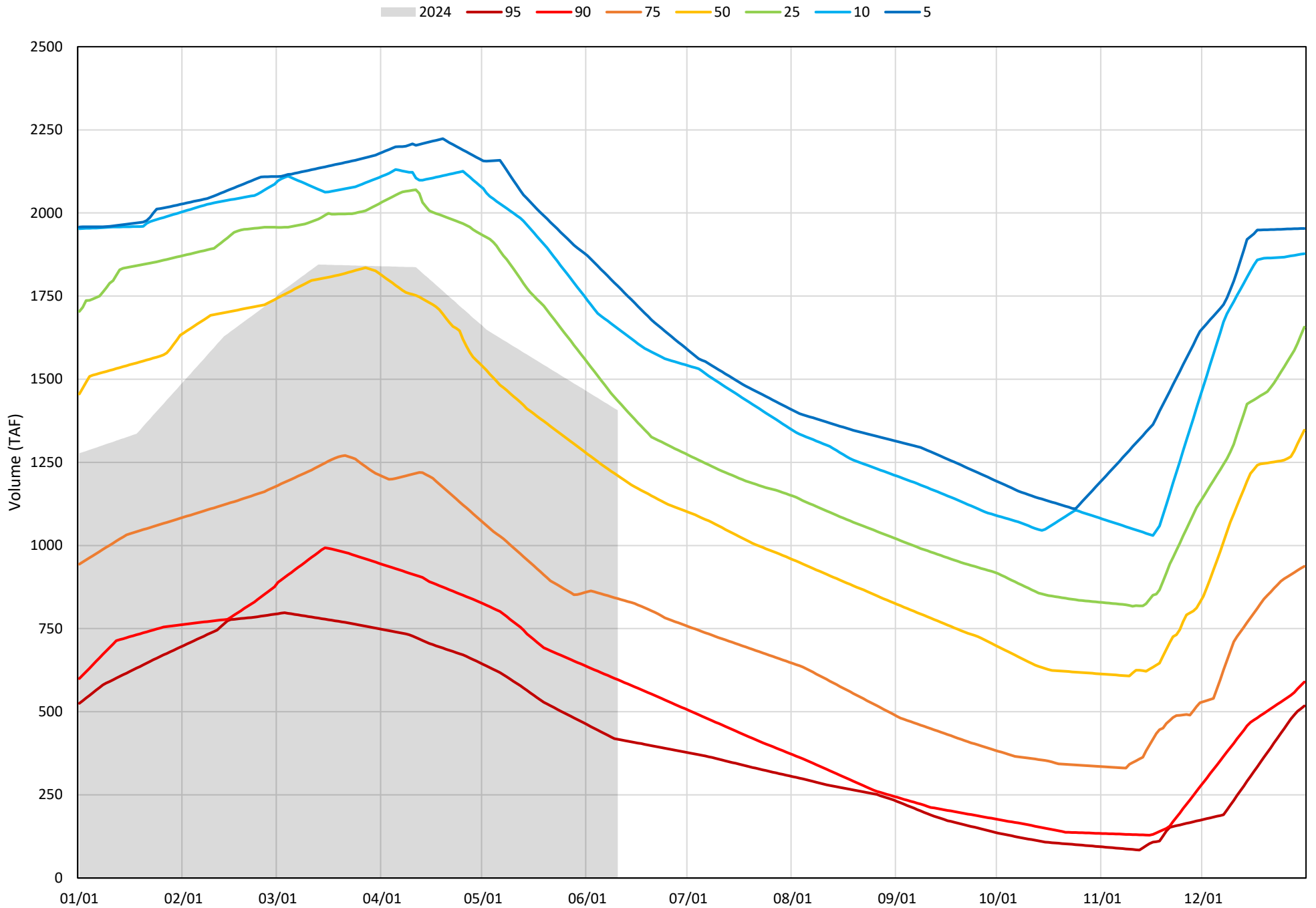
Trinity Lake Cold Water Pool Volume ≤50°F



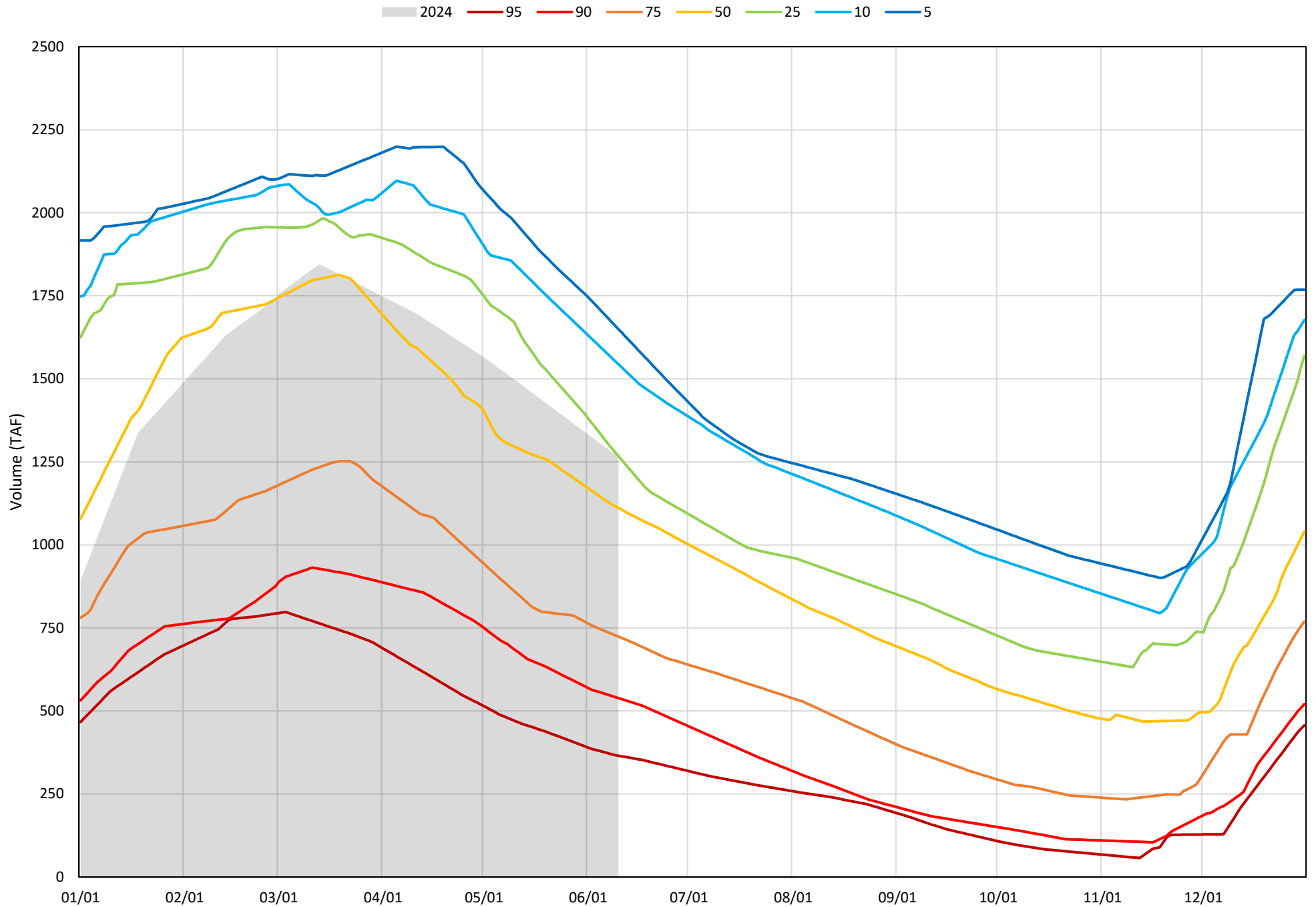
Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$



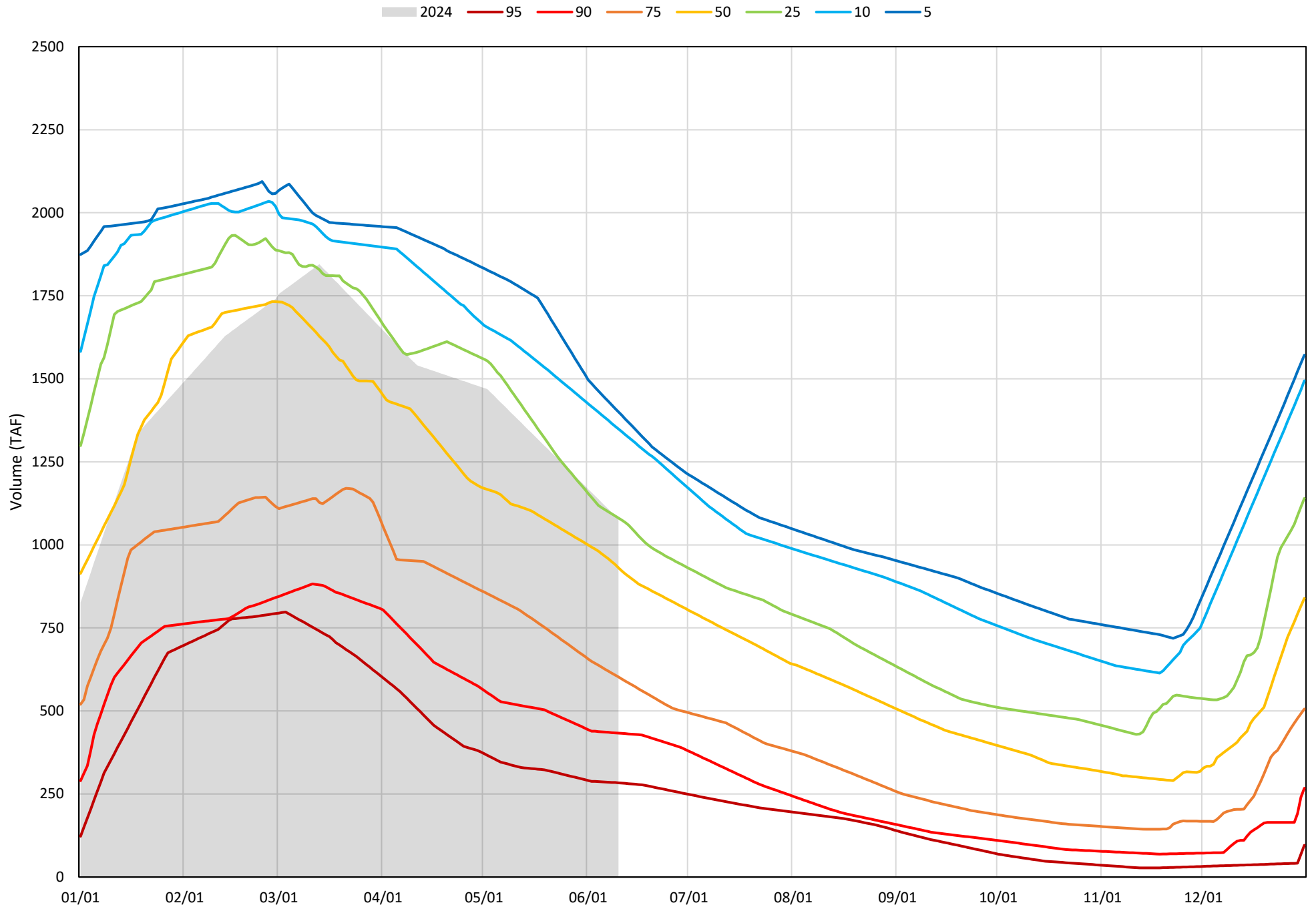
Trinity Lake Cold Water Pool Volume $\leq 52^{\circ}\text{F}$ - Percent Exceedances (2000-2023)



Trinity Lake Cold Water Pool Volume $\leq 50^{\circ}\text{F}$ - Percent Exceedances (2000-2023)



Trinity Lake Cold Water Pool Volume $\leq 48^{\circ}\text{F}$ - Percent Exceedances (2000-2023)



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

Jun-11 2024	Δ TAF				% Δ			
	$\leq 52^\circ$	$\leq 50^\circ$	$\leq 48^\circ$	Abs. Avg.	$\leq 52^\circ$	$\leq 50^\circ$	$\leq 48^\circ$	Abs. Avg.
2000	-34	-35	-16	28	-2	-3	-2	2
2001	-130	-127	-89	115	-9	-10	-8	9
2002	-204	-145	-92	147	-14	-12	-9	12
2003	225	72	10	103	16	6	1	8
2004	-48	-46	-96	63	-3	-4	-9	5
2005	-34	-127	-301	154	-2	-10	-28	13
2006	409	410	336	385	29	32	31	31
2007	-198	-161	-68	142	-14	-13	-6	11
2008	-412	-406	-435	418	-29	-32	-40	34
2009	-626	-619	-594	613	-45	-49	-55	50
2010	-290	-294	-379	321	-21	-23	-35	26
2011	188	218	204	203	13	17	19	16
2012	183	250	259	231	13	20	24	19
2013	-257	-205	-200	221	-18	-16	-19	18
2014	-759	-658	-539	652	-54	-52	-50	52
2015	-861	-794	-694	783	-61	-63	-64	63
2016	-589	-566	-489	548	-42	-45	-45	44
2017	50	15	26	30	4	1	2	2
2018	-139	-68	-28	78	-10	-5	-3	6
2019	266	308	284	286	19	24	26	23
2020	-195	-171	-197	188	-14	-14	-18	15
2021	-716	-624	-539	627	-51	-49	-50	50
2022	-1032	-934	-827	931	-73	-74	-77	75
2023	-498	-465	-423	462	-35	-37	-39	37
2024	0	0	0	0	0	0	0	0

Historical - Current

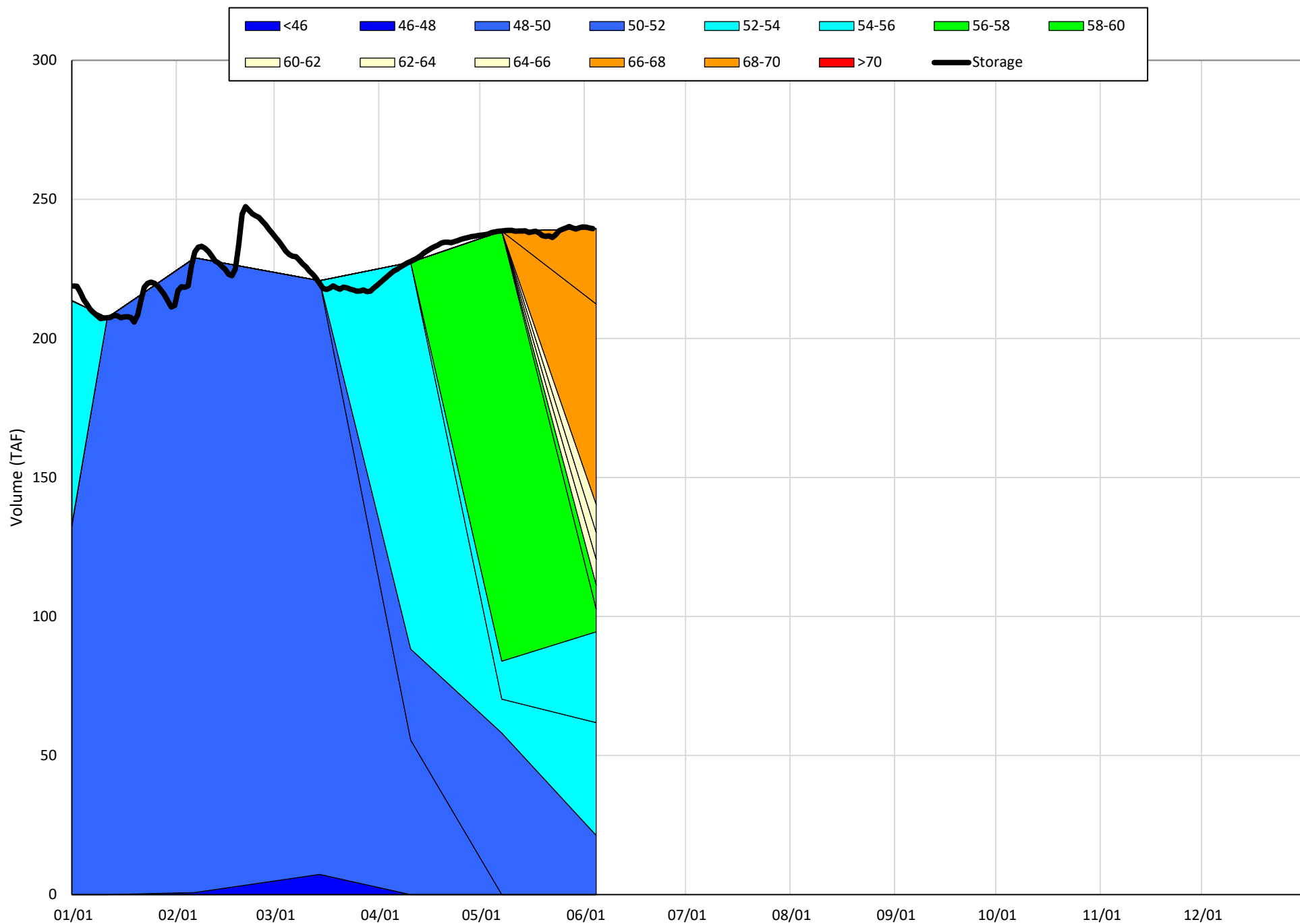
(Historical - Current) / Current

Whiskeytown Lake Isothermobaths & Cold Water Pool Statistics

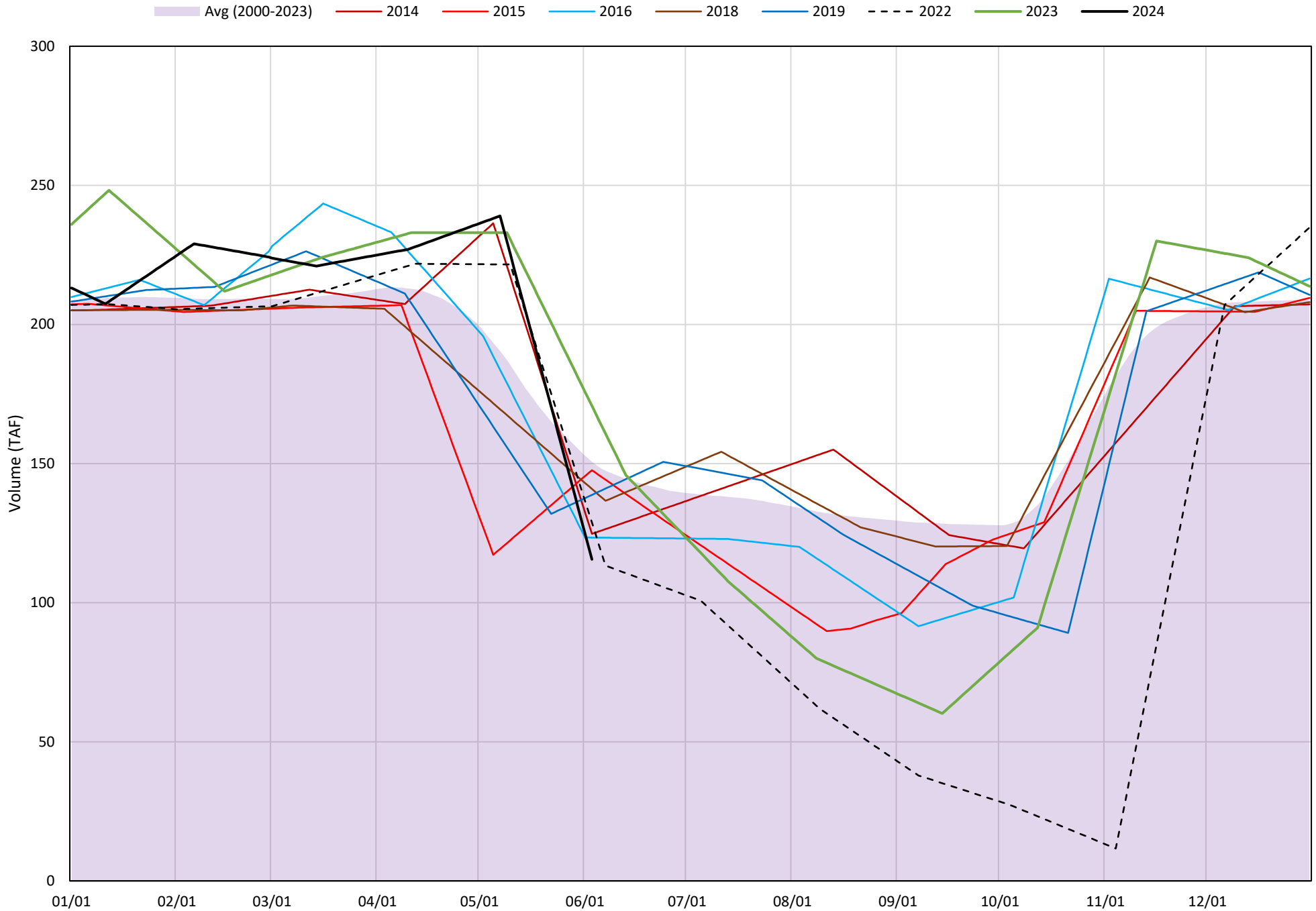
2024

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28	- Whiskeytown Lake Cold Water Pool Volume ≤60°F - Percent Exceedances
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30	- Whiskeytown Lake Cold Water Pool Volume ≤56°F - Percent Exceedances
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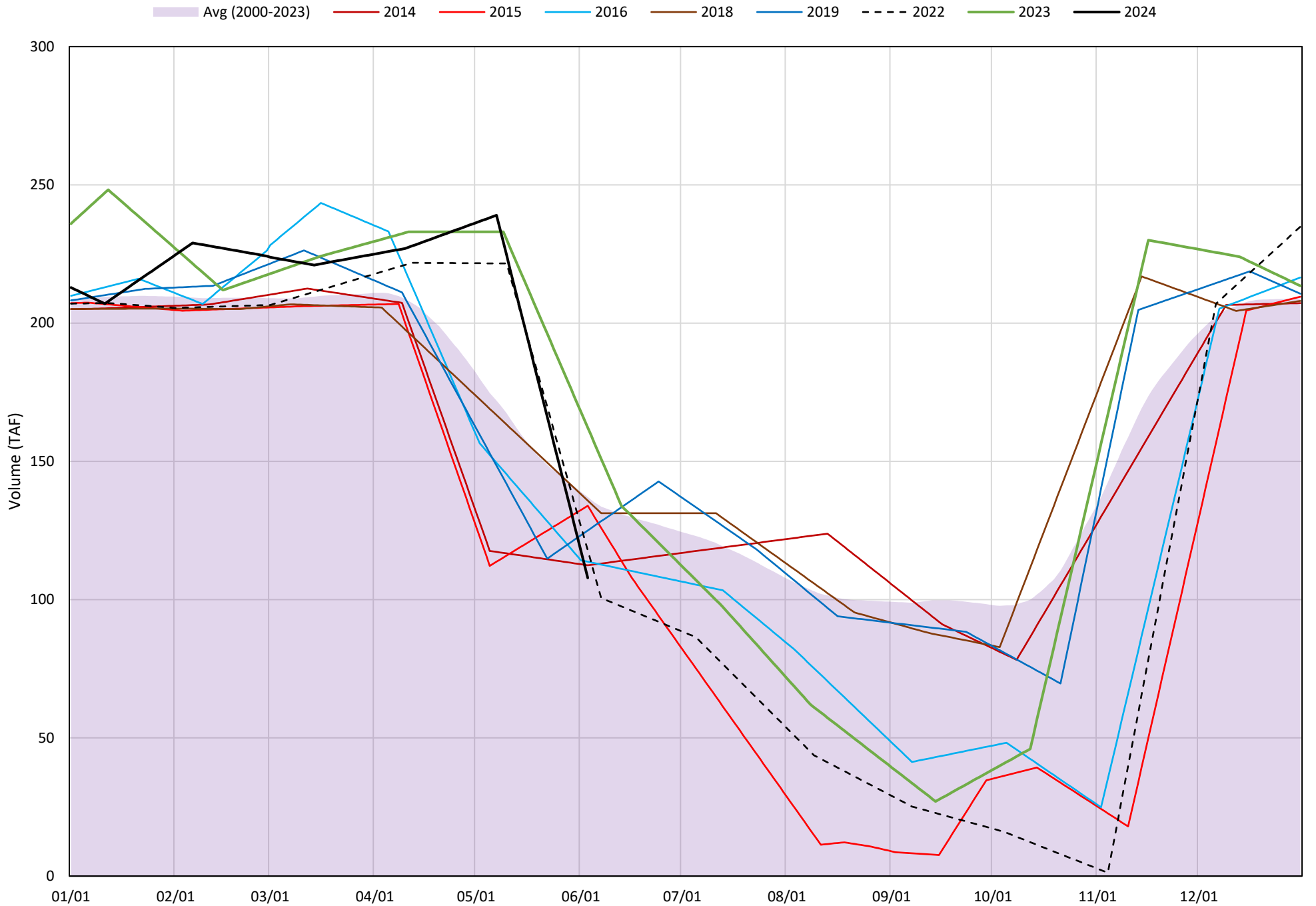
Whiskeytown Lake Isothermobaths Plot - 2024



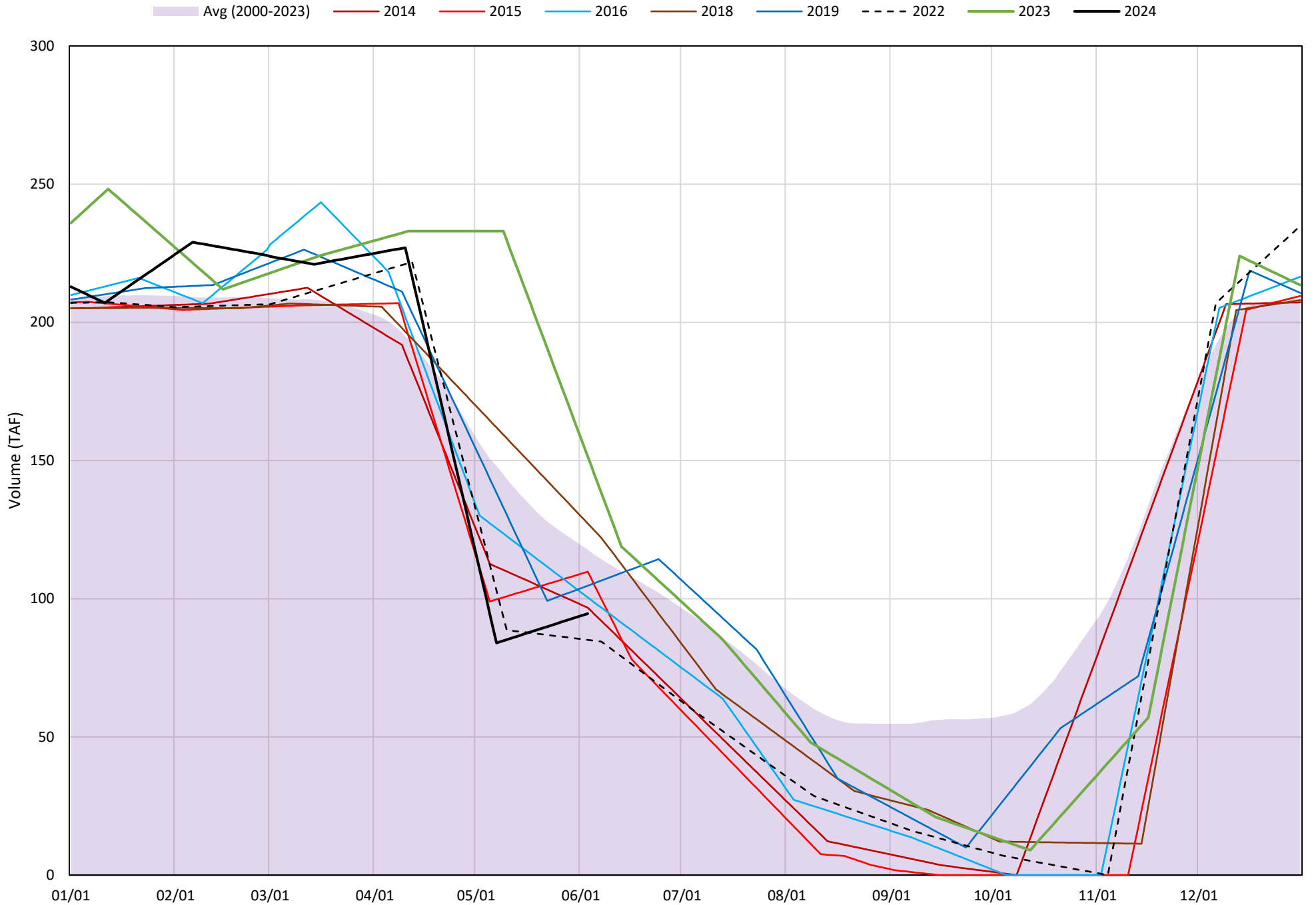
Whiskeytown Lake Cold Water Pool Volume ≤60°F



Whiskeytown Lake Cold Water Pool Volume ≤58°F

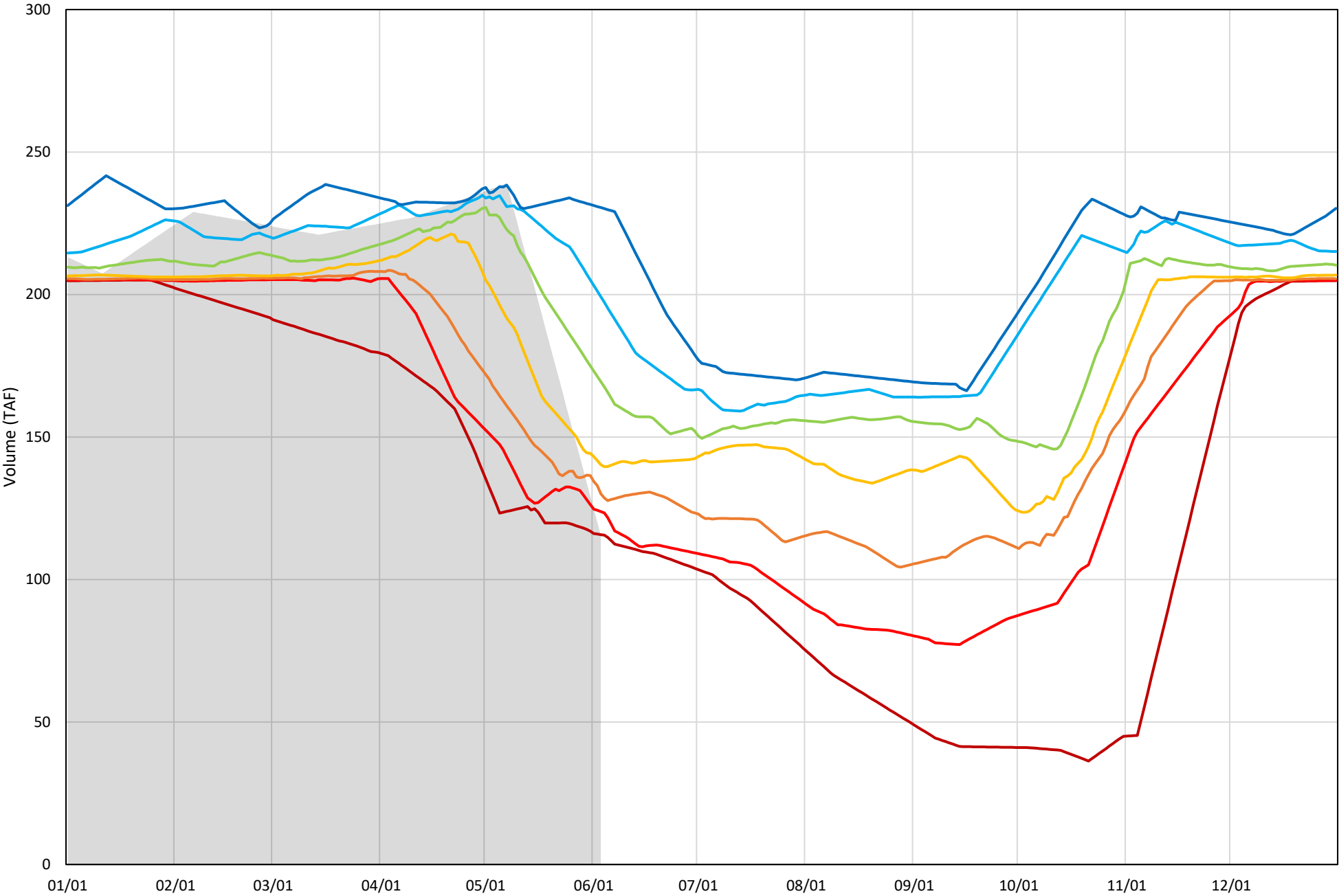


Whiskeytown Lake Cold Water Pool Volume ≤56°F



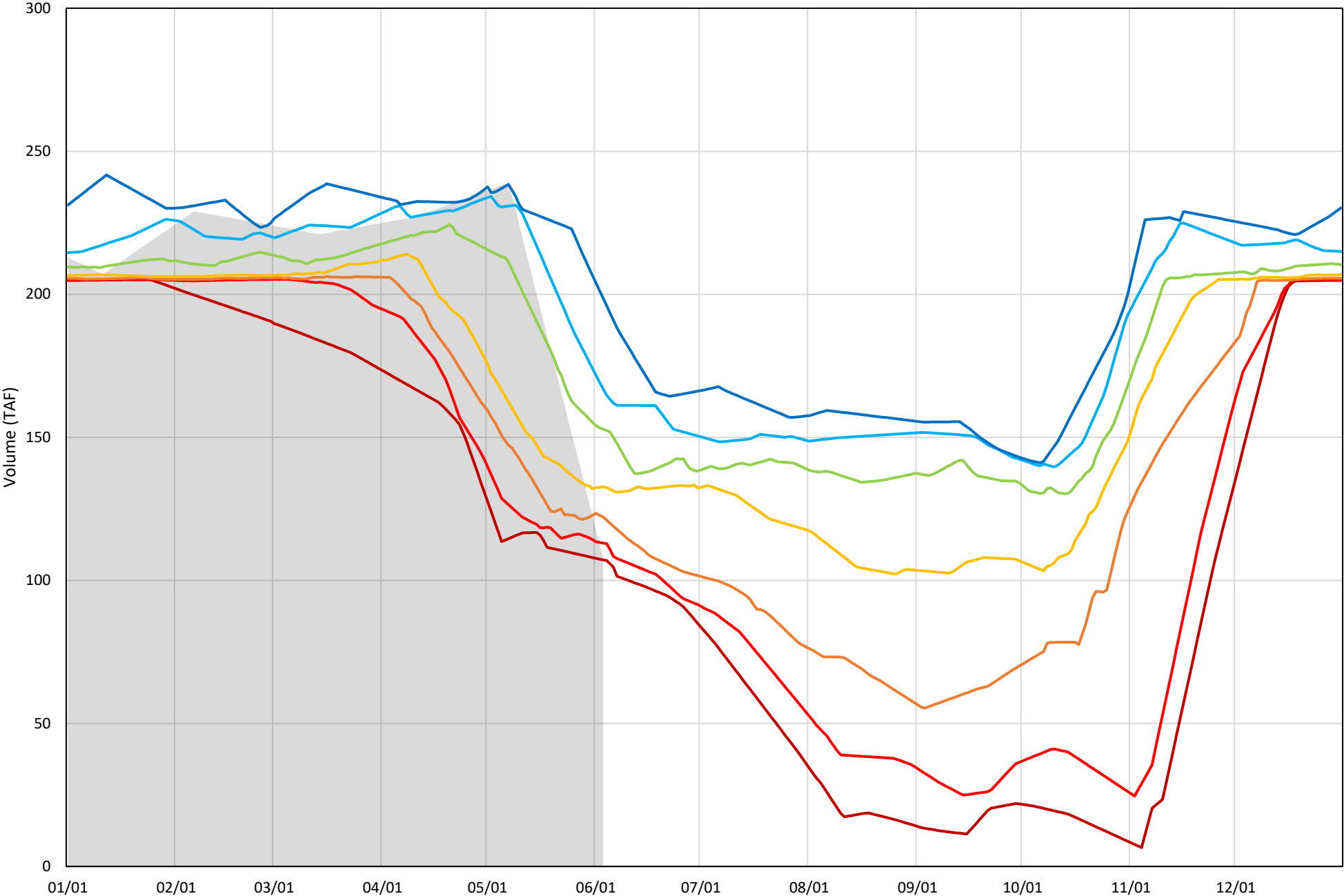
Whiskeytown Lake Cold Water Pool Volume ≤60°F - Percent Exceedances (2000-2023)

2024 95 90 75 50 25 10 5



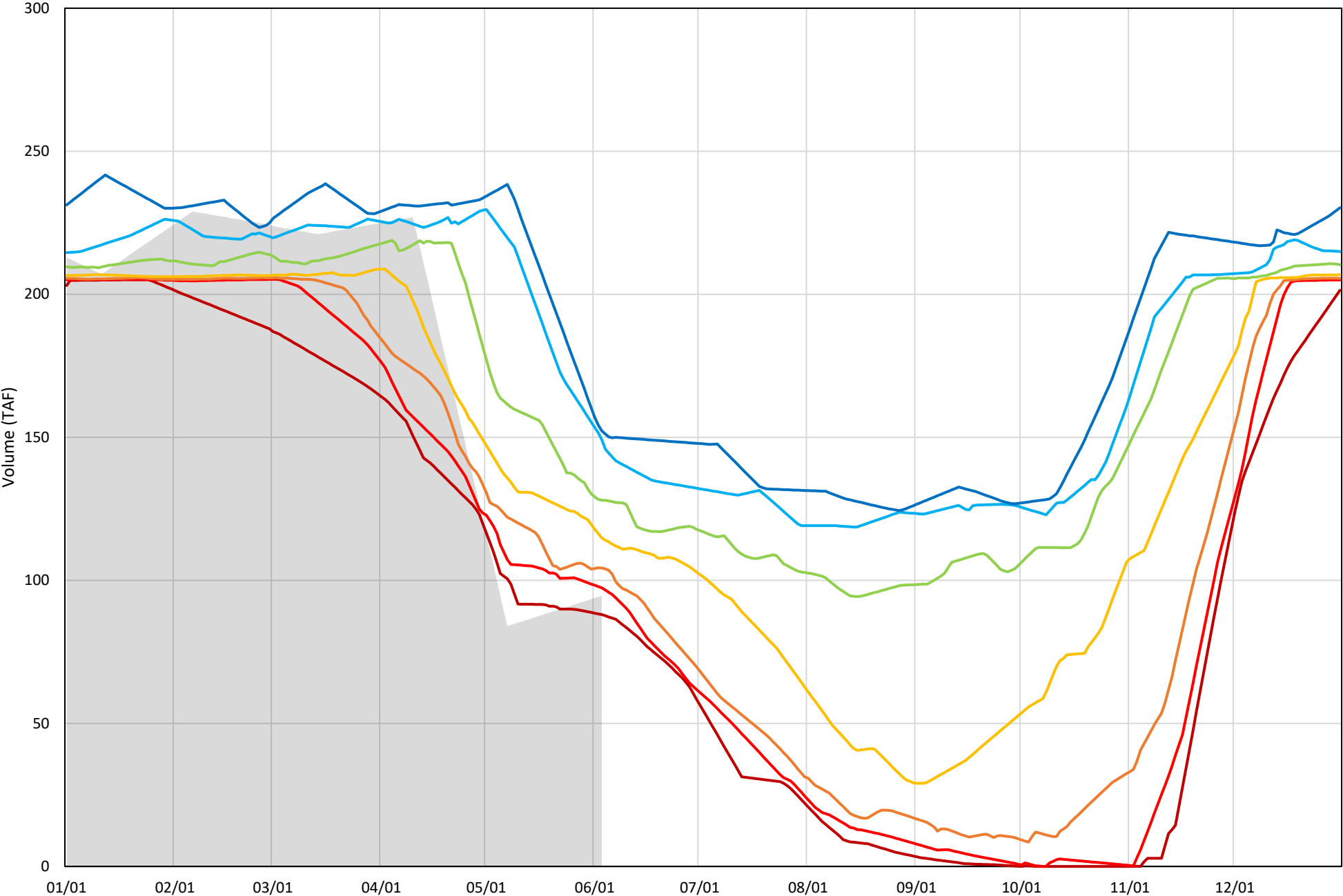
Whiskeytown Lake Cold Water Pool Volume ≤58°F - Percent Exceedances (2000-2023)

2024 95 90 75 50 25 10 5



Whiskeytown Lake Cold Water Pool Volume ≤56°F - Percent Exceedances (2000-2023)

2024 95 90 75 50 25 10 5



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

Jun-04 2024	Δ TAF				% Δ			
	$\leq 60^\circ$	$\leq 58^\circ$	$\leq 56^\circ$	Abs. Avg.	$\leq 60^\circ$	$\leq 58^\circ$	$\leq 56^\circ$	Abs. Avg.
2000	69.1	21.4	14.3	34.9	59.8	19.8	15.1	31.6
2001	18.4	16.5	16.0	17.0	15.9	15.3	16.9	16.1
2002	34.3	25.0	26.2	28.5	29.7	23.2	27.7	26.9
2003	60.5	56.6	52.3	56.4	52.3	52.4	55.3	53.3
2004	28.6	31.5	37.9	32.7	24.8	29.2	40.0	31.3
2005	12.6	16.7	17.2	15.5	10.9	15.5	18.2	14.8
2006	53.1	55.0	57.8	55.3	45.9	51.0	61.1	52.7
2007	24.3	28.6	30.0	27.6	21.0	26.5	31.7	26.4
2008	23.2	26.8	23.2	24.4	20.1	24.8	24.5	23.1
2009	24.4	13.5	6.3	14.8	21.1	12.5	6.7	13.4
2010	98.2	100.6	25.2	74.6	85.0	93.3	26.6	68.3
2011	120.5	61.6	15.7	65.9	104.3	57.1	16.6	59.3
2012	22.6	23.8	23.9	23.4	19.6	22.1	25.3	22.3
2013	25.0	24.6	33.6	27.7	21.6	22.8	35.6	26.7
2014	9.2	4.5	2.2	5.3	7.9	4.2	2.3	4.8
2015	32.0	26.1	15.1	24.4	27.7	24.2	16.0	22.6
2016	7.8	5.8	5.9	6.5	6.8	5.4	6.2	6.1
2017	54.1	49.5	48.4	50.6	46.8	45.9	51.1	47.9
2018	25.3	27.9	32.6	28.6	21.9	25.9	34.5	27.4
2019	23.2	17.1	10.1	16.8	20.0	15.9	10.7	15.5
2020	8.7	6.1	9.6	8.1	7.5	5.6	10.1	7.8
2021	-2.4	-2.5	3.4	2.7	-2.1	-2.3	3.6	2.6
2022	13.2	10.0	-9.5	10.9	11.4	9.3	-10.0	10.2
2023	55.2	54.3	56.8	55.4	47.7	50.4	60.1	52.7
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Historical - Current

(Historical - Current) / Current