

Ozone Season Summary 2022

SIPRAC

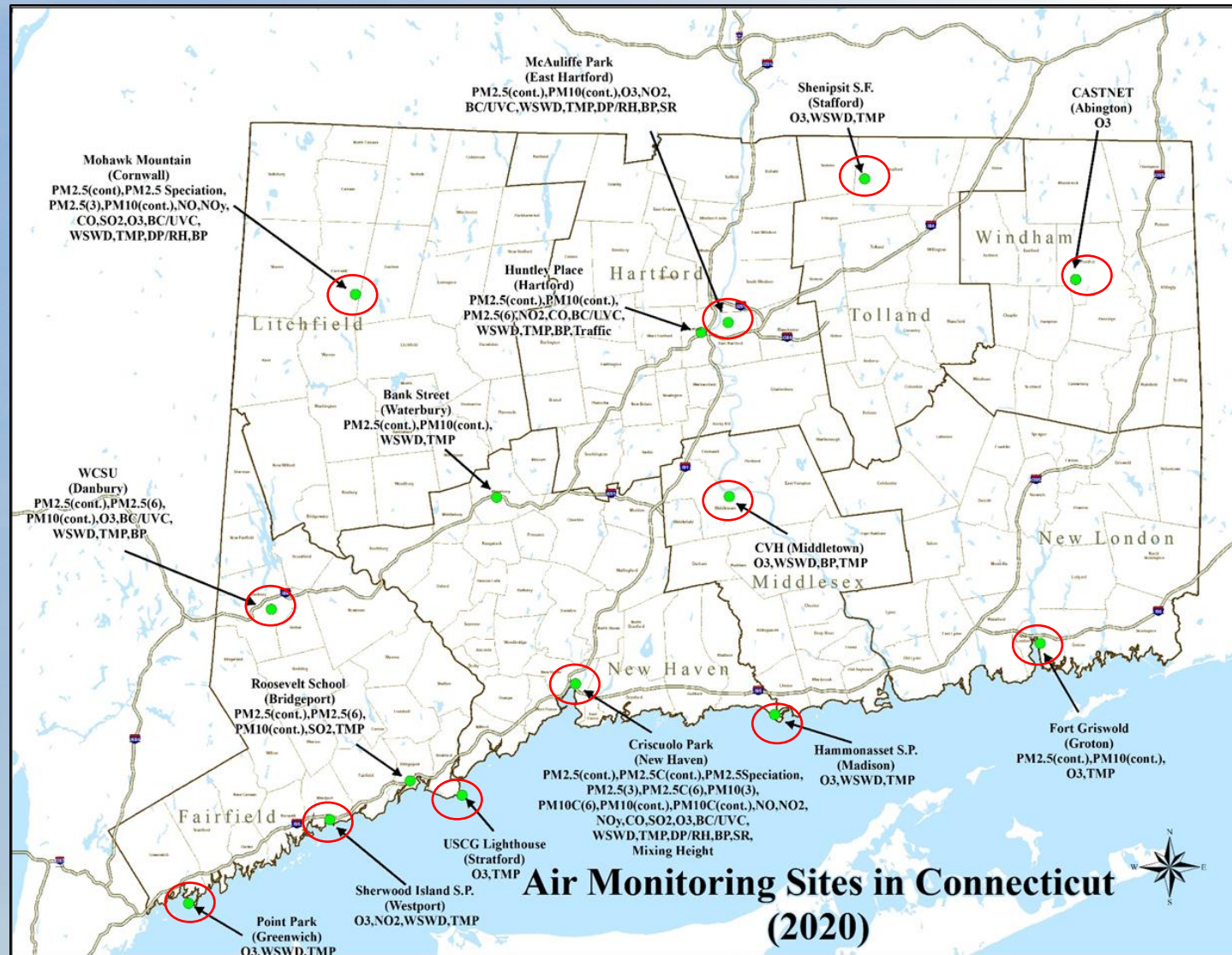
October 13, 2022



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Bureau of Air Management



CT Ozone Monitoring Sites

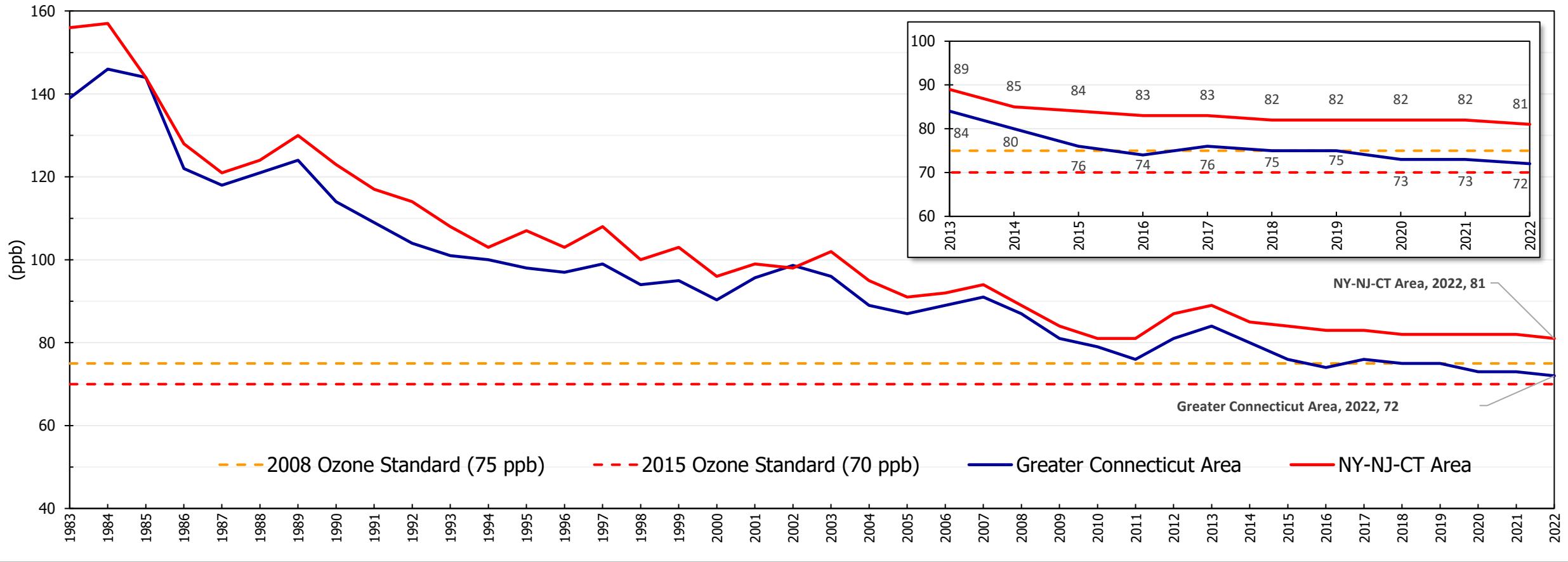


Design Value Update

		2022 Compliance Status				
		x = Violating NAAQS				
	Site Name	To Date: Prelim 2022 DV	2015 NAAQS	2008 NAAQS	1997 NAAQS	# Needed to Next NAAQS in Violation (key monitors in each NA are highlighted in RED)
SWCT Portion of NYC Area	Danbury	71	X			4 more days > 89 ppb day(s) violate the 2008 NAAQS
	Greenwich	77	X	X		4 more days > 99 ppb day(s) violate the 1997 NAAQS
	Madison	79	X	X		4 more days > 91 ppb day(s) violate the 1997 NAAQS
	Middletown	73	X			3 more days > 80 ppb day(s) violate the 2008 NAAQS
	New Haven	70				2 more days > 73 ppb day(s) violate the 2015 NAAQS
	Stratford	81	X	X		4 more days > 92 ppb day(s) violate the 1997 NAAQS
	Westport	80	X	X		4 more days > 95 ppb day(s) violate the 1997 NAAQS
Greater CT	Cornwall	67				4 more days > 81 ppb day(s) violate the 2015 NAAQS
	East Hartford	68				4 more days > 82 ppb day(s) violate the 2015 NAAQS
	Groton	72	X			4 more days > 81 ppb day(s) violate the 2008 NAAQS
	Stafford	66				4 more days > 82 ppb day(s) violate the 2015 NAAQS
	Abington	64				4 more days > 82 ppb day(s) violate the 2015 NAAQS
Number of Exceedance Days to Date			23			The 1997 standard was repealed with the 2008 Implementation rule. Effective April 6, 2015

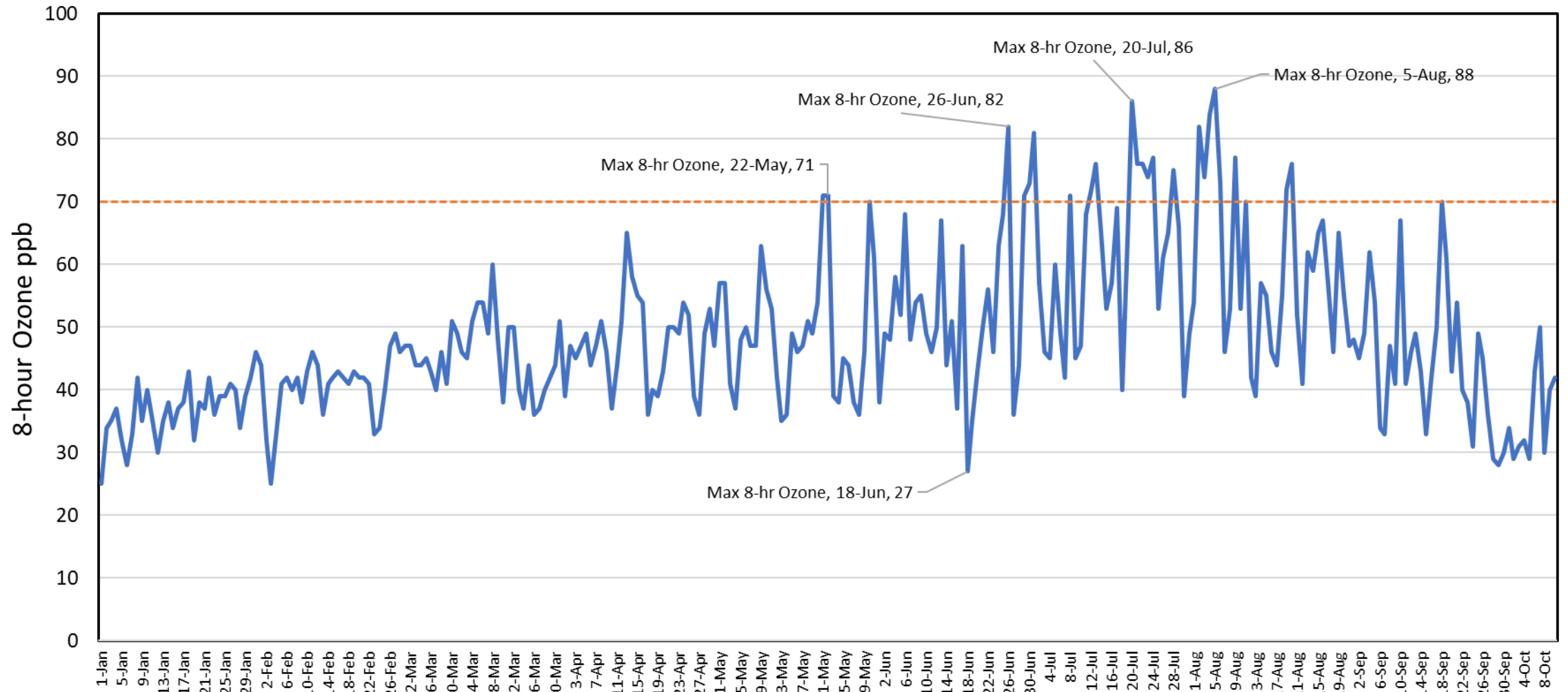
Design Value Update

Ozone Design Value Trends Connecticut's Two Nonattainment Areas



Statewide Maximum Daily Ozone

2022 Maximum 8-hour Daily Ozone



2022 Ozone Season Summary

Month	May		June			July										August								
Site	21	22	26	29	30	1	8	12	13	20	21	22	23	24	28	2	3	4	5	6	9	19	20	Exceedances
Abington	54	61	61	53	54	61	50	47	44	52	50	60	58	68	50	53	48	68	64	57	51	55	64	0
Cornwall	71	53	67	59	66	68	45	67	41	58	65	58	58	61	70	49	57	71	57	66	45	63	73	3
Danbury	67	58	71	60	61	75	54	72	65	63	76	55	62	64	75	55	57	76	54	73	49	61	69	7
East Hartford	62	63	74	58	52	81	45	61	41	55	54	57	56	63	58	54	47	77	75	70	46	57	69	4
Greenwich	58	65	70	71	73	75	57	54	76	85	67	74	73	64	75	77	74	79	62	63	61	72	76	13
Groton	40	46	64	54	59	55	43	40	58	72	43	59	65	73	47	63	41	56	71	57	73	54	57	4
Madison	51	56	65	60	63	57	53	45	62	78	49	65	65	77	53	76	47	68	72	55	77	56	62	5
Middletown	60	66	70	65	60	74	71	52	59	61	59	70	67	71	56	73	55	84	80	64	56	60	64	6
New Haven	46	64	72	64	58	60	67	38	66	72	48	69	68	42	56	71	56	77	80	65	55	59	66	5
Stafford	63	62	67	56	M	74	44	57	39	50	49	55	55	61	48	52	44	77	68	65	43	54	68	2
Stratford	55	69	74	70	68	64	66	49	69	86	57	76	71	74	66	82	58	81	85	65	73	66	72	10
Westport	65	71	82	71	71	73	62	52	73	82	60	73	74	73	65	80	69	81	88	70	61	68	76	14
Site Exceedances	1	1	5	2	2	6	1	1	2	6	1	3	3	5	2	6	1	9	7	1	3	1	4	73
# days > Federal Standard	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	



Good (0-54 ppb)
Moderate (55-70 ppb)
Unhealthy for Sensitive Groups (71-85 ppb)
Unhealthy (86-105 ppb)
Very Unhealthy (>106 ppb)

Forecasted Exceedance Days

Actual Exceedance Days = 23
Forecast Exceedance Days = 16

Month	Actual Dates	Forecast Dates
May	21 & 22	21
June	26, 29, & 30	25 & 26
July	1, 8, 12, 13, 20, 21, 22, 23, 24, & 28	1, 20, 21, 22, 23, 24 & 27
August	2, 3, 4, 5, 6, 9, 19, & 20	2, 4, 5, 9, 20, & 23
September	None	None
Total	23	16

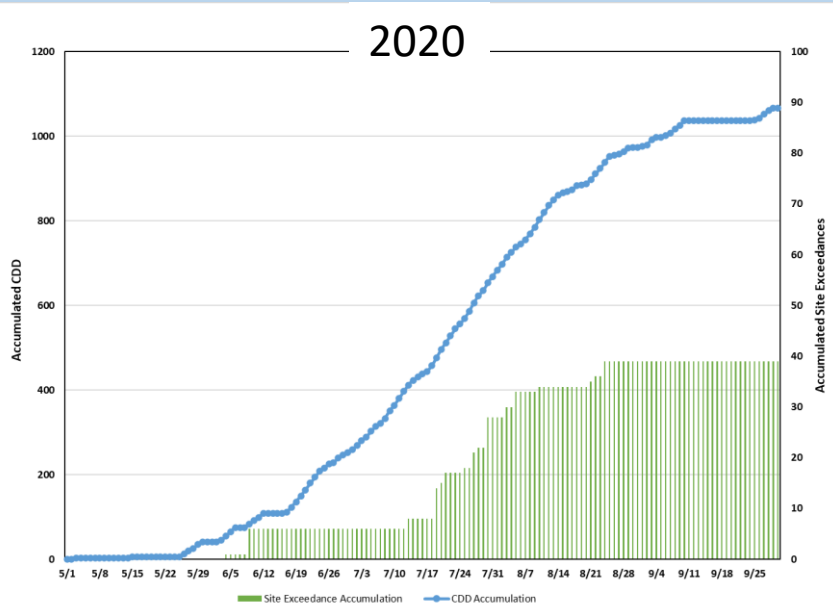
Of the 23 exceedance days,

1. Forecasted USG for 13 days that exceeded the standard.
2. Did not forecast USG for 10 days that exceeded the standard.
3. Forecasted USG for 3 days that did not exceed the standard.

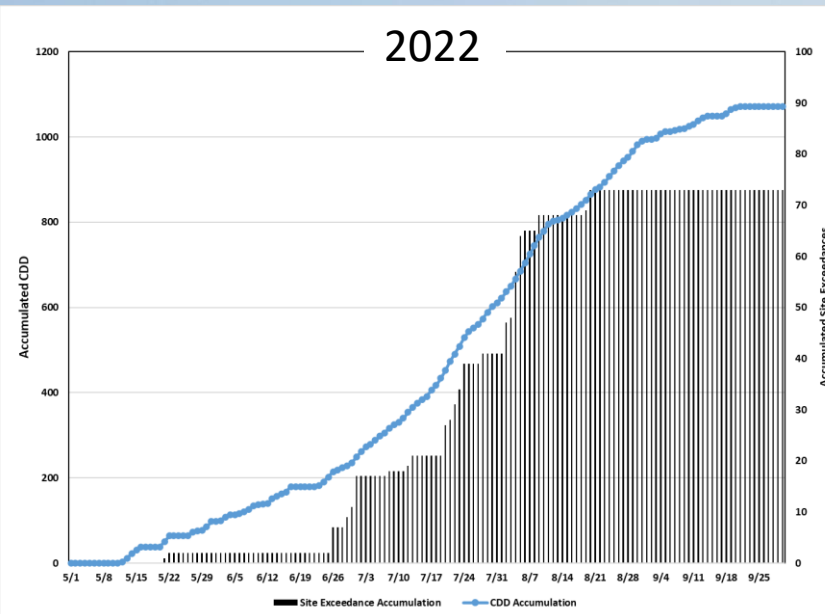
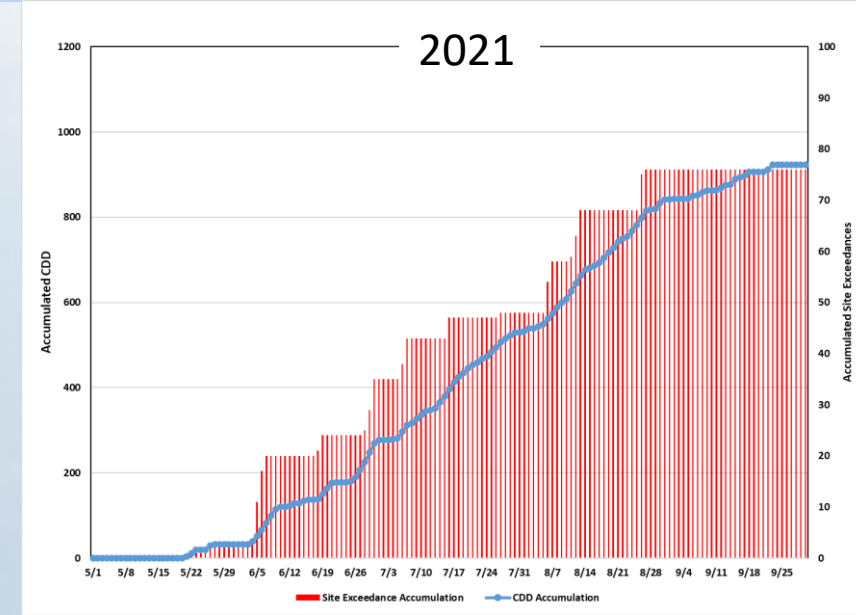
All the under-predicted days featured one or two sites that barely exceeded the standard.

There were many days with ozone values very close to the 70 ppb standard.

Cooling Degree Day (CDD) Update



- The first exceedance in 2020 (left) was on June 5th.
- The first exceedance in 2021 (right) was on May 21st.
- The first exceedance in 2022 (bottom) was also on May 21st.



At the end of ozone season:

- 2020 had 1067 CDD and 39 site exceedances.
- 2021 had 923 CDD and 76 site exceedances.
- 2022 had 1071 CDD and 73 site exceedances.

At the end of ozone season:

- 2022 had more CDD than 2021 and 2020.
- 2022 had less accumulated site exceedances than 2021, but more than 2020.



Conclusions

- Greater Connecticut continues to attain the 2008 standards.
 - Groton is the only monitor not attaining the 2015 standards.
- Southwest CT does not attain either the 2008 or 2015 standards.
- DEEP's Air Quality team forecasted 13 out of the 23 exceedance days.
- 2022 had more exceedance days (23) than 2021 (21).
- 2022 was warmer than 2021, but had less accumulated site exceedances.



Thank you!

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