



2024 OZONE SEASON SUMMARY

SIPRAC

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Bureau of Air Management

EXCEPTIONAL EVENTS DEMONSTRATION UPDATE

Dates Requested:

April 13, 2023

April 14, 2023

June 30, 2023

July 1, 2023

July 12, 2023

Dates Approved by EPA:

June 30, 2023

July 1, 2023

2023 Design Values:

SWCT Portion of NYC Area	Danbury	73
	Greenwich	78
	Madison	79
	Middletown	75
	New Haven	70
	Stratford	82
	Westport	82
Greater CT	Cornwall	68
	East Hartford	70
	Groton	72
	Stafford	68
	Abington	65

[2023 Exceptional Events \(ct.gov\)](#)

CHANGES TO FORECAST NOTIFICATION

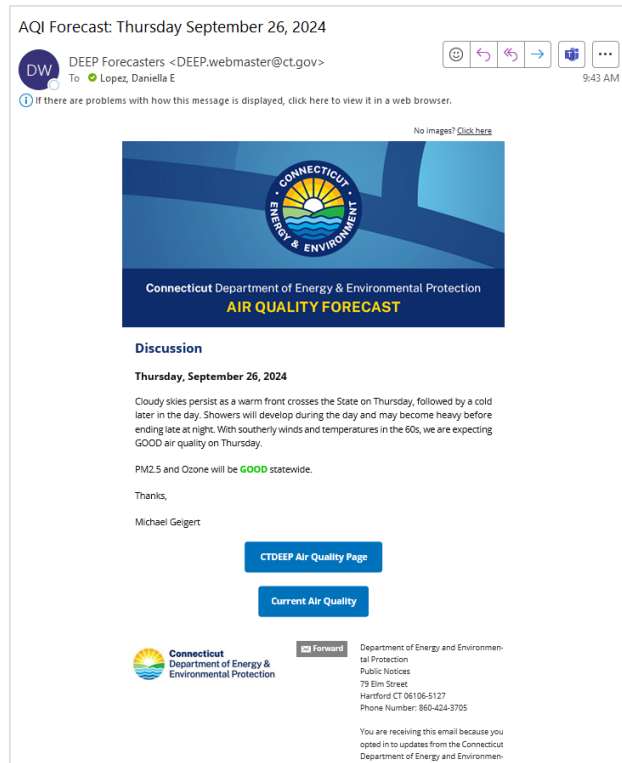
1: Email platform switched from Listserv to Campaign Monitor

AQI and Ozone emailed forecasts no longer have an attached PDF.

AQI table can be seen on our 'Air Quality Index' [webpage](#) daily.

Ozone Exceedance PDF's posted daily on our 'Forecasted Ozone Exceedance Days' [webpage](#).

2: Webpage changes in the works for 2025 ozone season!



Forecasted Ozone Exceedance Days

Year 2024

The table below is the current list of forecasted days to have ozone Air Quality Index (AQI) levels of Unhealthy for Sensitive Groups (USG), or worse, anywhere in Connecticut.

Month	Day	Day of the Week	PDF
**May	22	Wednesday	-
**June	4	Tuesday	-
**June	14	Friday	-
June	18	Tuesday	June 18, 2024
June	19	Wednesday	June 19, 2024
June	20	Thursday	June 20, 2024
June	21	Friday	June 21, 2024
June	22	Saturday	June 22, 2024
June	26	Wednesday	June 26, 2024
July	7	Sunday	July 7, 2024
July	8	Monday	July 8, 2024
July	9	Tuesday	July 9, 2024
July	15	Monday	July 15, 2024
July	16	Tuesday	July 16, 2024
July	17	Wednesday	July 17, 2024
**August	2	Friday	-
August	3	Saturday	August 3, 2024

*On a day marked with an *, the initial prediction of ozone conditions of "Moderate to Unhealthy for Sensitive Groups", or greater was revised to either "Good", or "Good to Moderate" or "Moderate" by 3 P.M. Therefore, on these days the regulated community is allowed to operate emergency engines, or other regulated equipment, **after 3 P.M.** on that given day. Any forecast that was "upgraded" (marked with an **) that day will not affect the forecast for the regulated community.

2024 OZONE FORECASTING SEASON

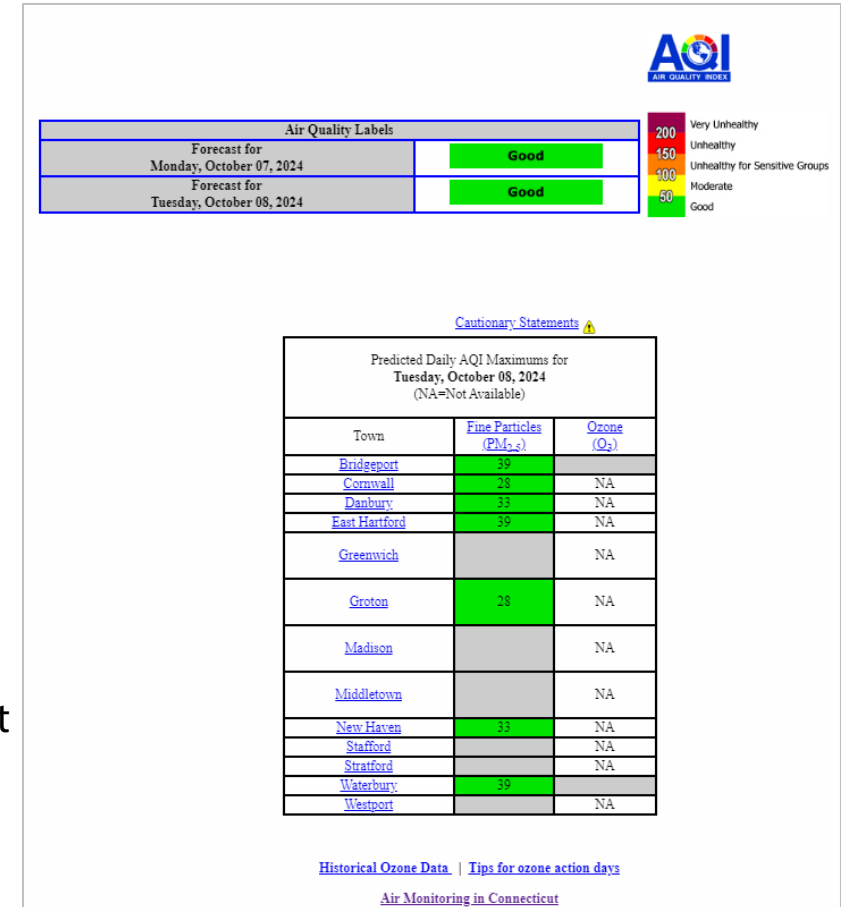
Ozone Forecasting Season is May 1 - Sept 30.

CTDEEP forecasts are available through:

1. Daily Emails
2. [CTDEEP AQI web page](#)
3. EPA Airnow forecasts

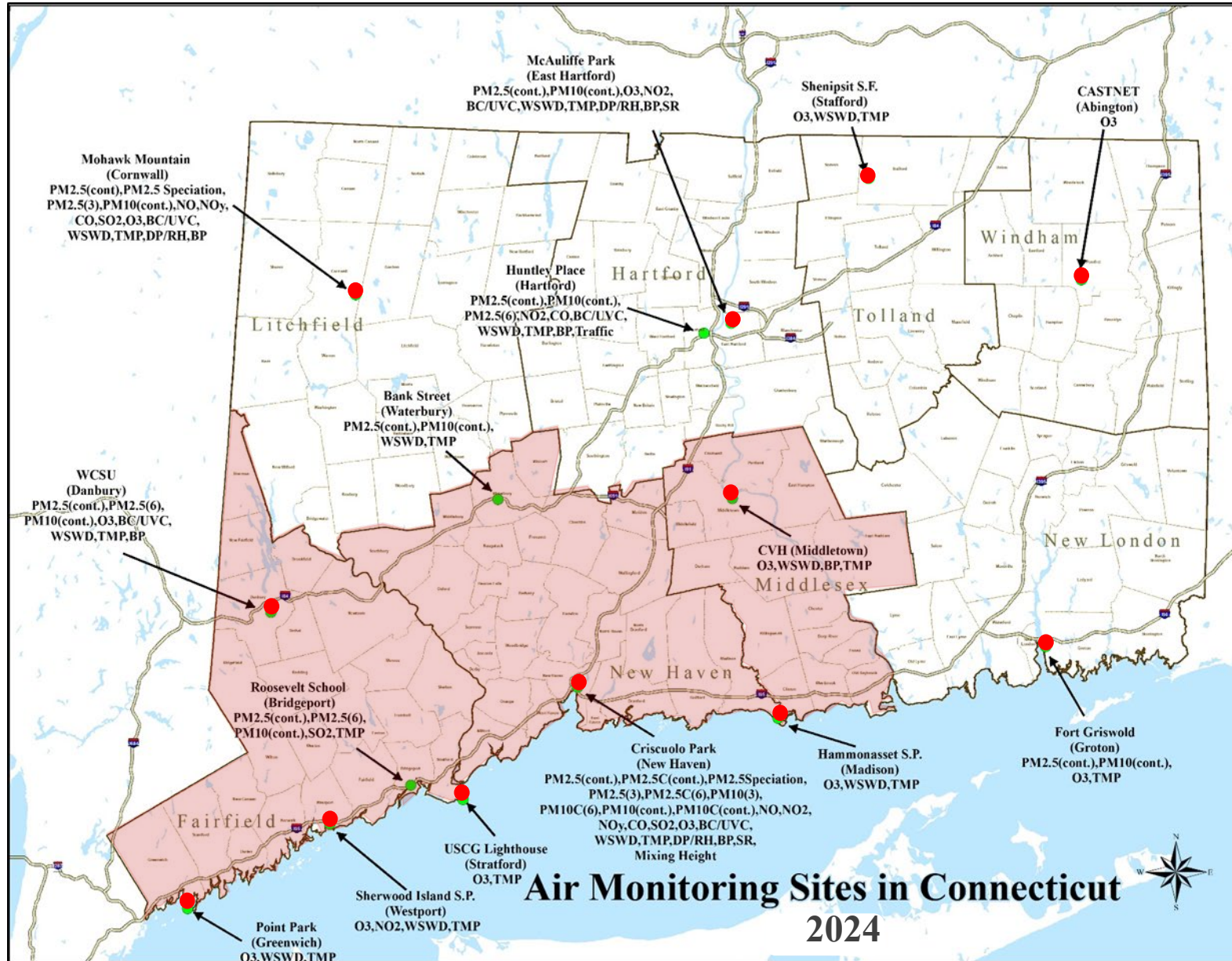
Receive notices of Daily AQI:

- [EnviroFlash](#) - Subscribe to receive air quality information by e-mail.
- Subscribe to the [DEEP Air Quality Forecast](#) to receive a daily ozone forecast between May 1 through September 30, and a daily PM2.5 forecast year-round.
- Subscribe to the [DEEP Ozone Forecast](#) to receive a daily 8-hour ozone forecast that is disseminated to Connecticut's regulated community from May 1 through September 30.



CONNECTICUT'S MONITORING SITES

- Ozone specific monitors
- NY-NJ-CT area



2024 OZONE SEASON SUMMARY

Month	May		June										July					August						Site Exceedances
Site	22	24	2	3	4	13	18	19	20	21	22	26	9	11	15	16	17	1	2	6	25	26	28	Site Exceedances
Abington	64	61	68	65	44	64	55	55	77	48	31	72	51	61	56	59	54	45	55	25	51	45	49	2
Cornwall	71	59	61	76	61	72	76	72	70	52	M	55	72	45	61	71	55	52	61	36	62	50	48	7
Danbury	75	60	67	61	75	74	78	79	87	59	62	69	69	57	78	78	73	59	58	43	61	53	52	9
East Hartford	72	56	66	66	52	75	72	76	99	53	50	74	66	68	69	72	61	48	57	26	52	46	48	7
Greenwich	59	64	70	71	48	68	58	59	74	85	69	80	59	67	74	81	73	79	69	72	75	71	62	11
Groton	49	73	65	77	39	64	47	49	63	76	49	57	46	58	56	69	55	68	67	29	71	60	78	5
Madison	53	72	68	80	41	69	48	51	69	75	51	64	49	63	66	68	58	69	62	40	74	57	82	5
Middletown	70	62	74	68	49	72	59	65	96	56	50	81	54	74	63	75	59	57	61	36	62	49	54	6
New Haven	64	57	81	77	50	72	43	63	88	78	71	76	55	66	63	74	64	67	76	41	61	59	55	9
Stafford	76	58	64	61	47	72	71	70	88	42	39	72	64	64	68	69	53	43	49	28	50	41	45	5
Stratford	55	64	70	81	42	65	52	51	72	79	65	78	57	70	81	78	66	73	70	52	68	66	72	8
Westport	63	66	77	77	51	72	59	62	52	87	86	82	61	73	68	85	62	82	75	62	73	72	59	12
Site Exceedances	4	2	3	7	1	7	4	3	8	6	2	8	1	2	3	8	2	3	2	1	4	2	3	86
# 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)

There were three ozone exceedance days reaching 'unhealthy' values.

FORECASTED EXCEEDANCE DAYS

Actual Exceedance Days = 23 Forecast Exceedance Days = 11		
Month	Actual Dates	Forecast Dates
May	22, 24	*22
June	2, 3, 4, 13, 18, 19, 20, 21, 22, 26	*4, *14, 18, 19, 20, 21, 22, 26
July	9, 11, 15, 16, 17	7, 8, 9, 15, 16, 17
August	1, 2, 6, 25, 26, 28	*2, 3
September	None	None
Total	23	13

- Of the 23 exceedance days,
1. Forecasted US G for 10 days that exceeded the standard.
 2. Did not forecast US G for 10 days that exceeded the standard.
 3. Forecasted US G for 4 days that did not exceed the standard.
 4. Upgraded our forecast 3 times to accurately inform of US G values

There were more exceedance days (23) during the 2024 season compared to the 2023 season (19).

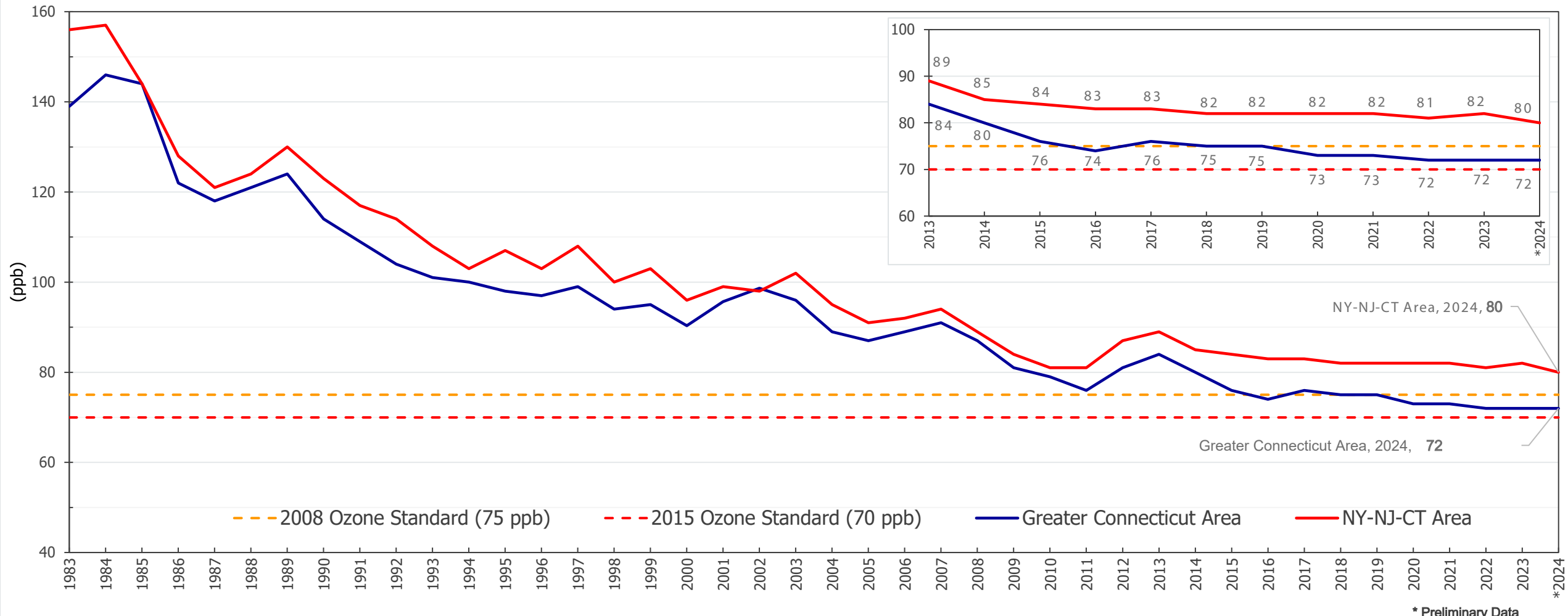
*Upgraded Forecast

2024 PRELIMINARY DESIGN VALUES

		2024 Compliance Status x = Violating NAAQS								
		To Date: Prelim 2024 DV	2015 NAAQS	2008 NAAQS	1997 NAAQS	# Needed to Next NAAQS in Violation (key monitors in each NA are highlighted in RED)				
Site Name										
SWCT Portion of NYC Area	Danbury	76	X	X		4	more days >	104	ppb day(s) violate the	1997 NAAQS
	Greenwich	79	X	X		4	more days >	96	ppb day(s) violate the	1997 NAAQS
	Madison	76	X	X		4	more days >	100	ppb day(s) violate the	1997 NAAQS
	Middletown	74	X			2	more days >	79	ppb day(s) violate the	2008 NAAQS
	New Haven	72	X			3	more days >	86	ppb day(s) violate the	2008 NAAQS
	Stratford	80	X	X		4	more days >	92	ppb day(s) violate the	1997 NAAQS
	Westport	80	X	X		4	more days >	94	ppb day(s) violate the	1997 NAAQS
Greater CT	Cornwall	69				3	more days >	75	ppb day(s) violate the	2015 NAAQS
	East Hartford	72	X			3	more days >	83	ppb day(s) violate the	2008 NAAQS
	Groton	71	X			4	more days >	85	ppb day(s) violate the	2008 NAAQS
	Stafford	70				2	more days >	74	ppb day(s) violate the	2015 NAAQS
	Abington	64				4	more days >	85	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				

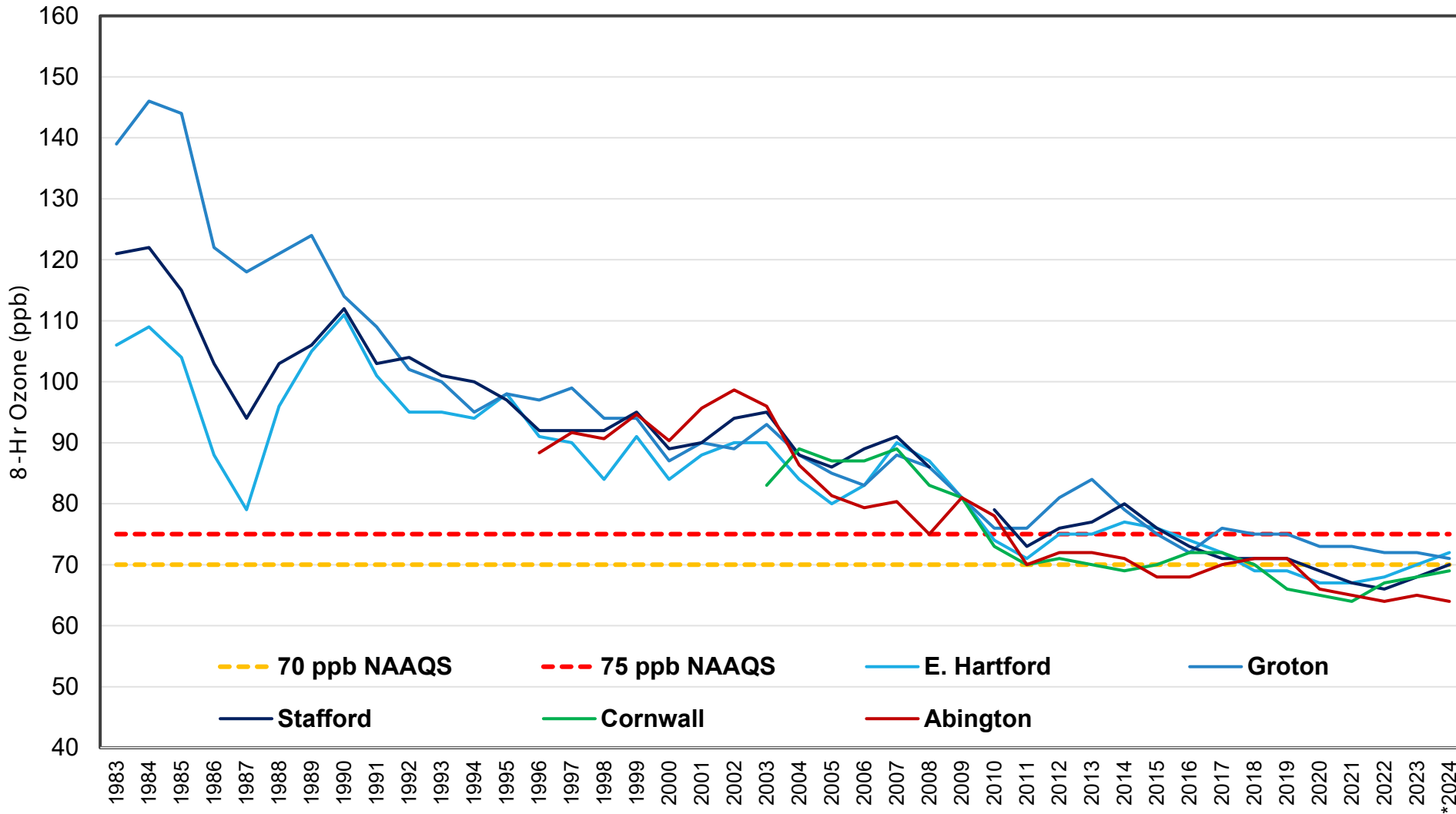
DESIGN VALUE UPDATE

Ozone Design Value Trends Connecticut's Two Nonattainment Areas



GREATER CONNECTICUT OZONE TRENDS

Greater Connecticut Ozone Non-Attainment Area 8 -hr Ozone Design Value Trends



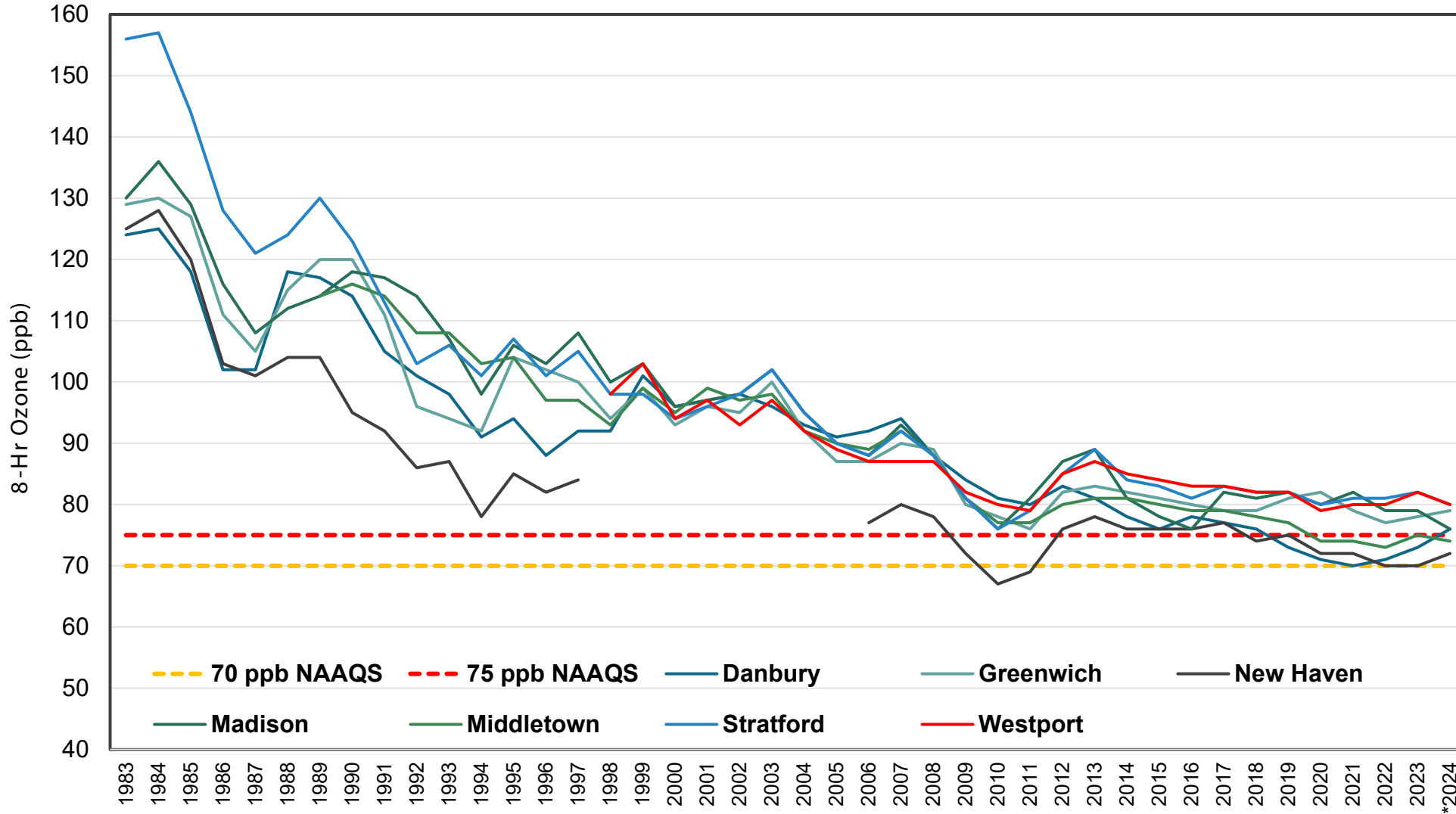
* Preliminary Data

As of 2024, all of the Greater Connecticut sites are compliant with the 2008 NAAQS.

Groton continues to be the highest monitor for GRCT. Groton and East Hartford are noncompliant with the 2015 NAAQS.

SOUTHWEST CONNECTICUT OZONE TRENDS

Southwest Connecticut Ozone Non-Attainment Area 8 -hr Ozone Design Value Trends



* Preliminary Data

Currently Middletown, and New Haven have fallen below the 2008 NAAQS for 2024.

Danbury, Stratford, Westport, Madison, and Greenwich have the highest design values across the state.

No monitors are currently complaint with the 2015 NAAQS.

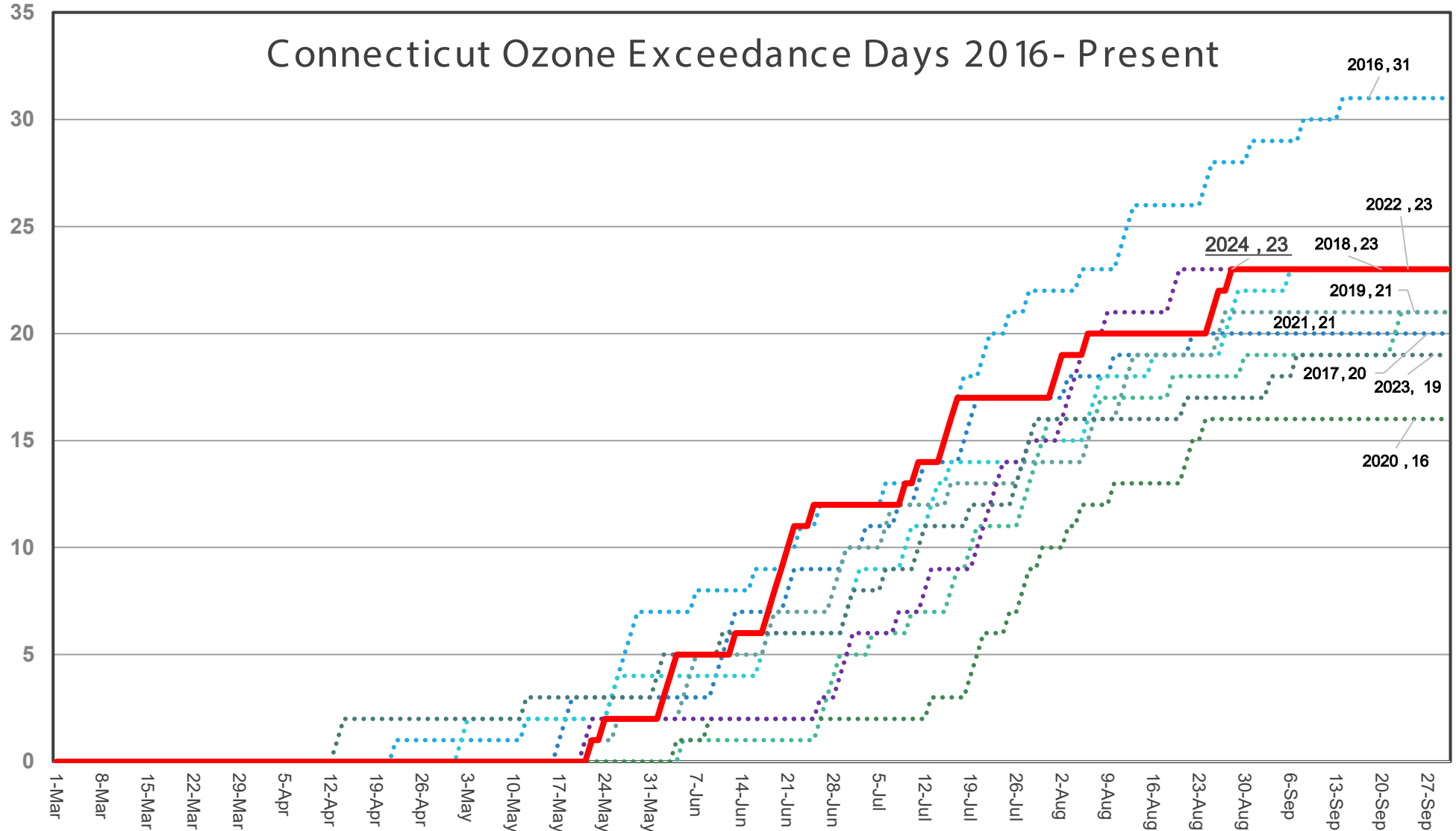
ACCUMULATED EXCEEDANCE DAYS

Exceedance days in recent years (70 ppb):

- 2016 – 31 days
- 2017 – 20 days
- 2018 – 23 days
- 2019 – 21 days
- 2020 – 17 days*
- 2021 – 21 days
- 2022 – 23 days
- 2023 – 19 days
- 2024 – 23 days

The 2024 ozone season started off on May 22nd.

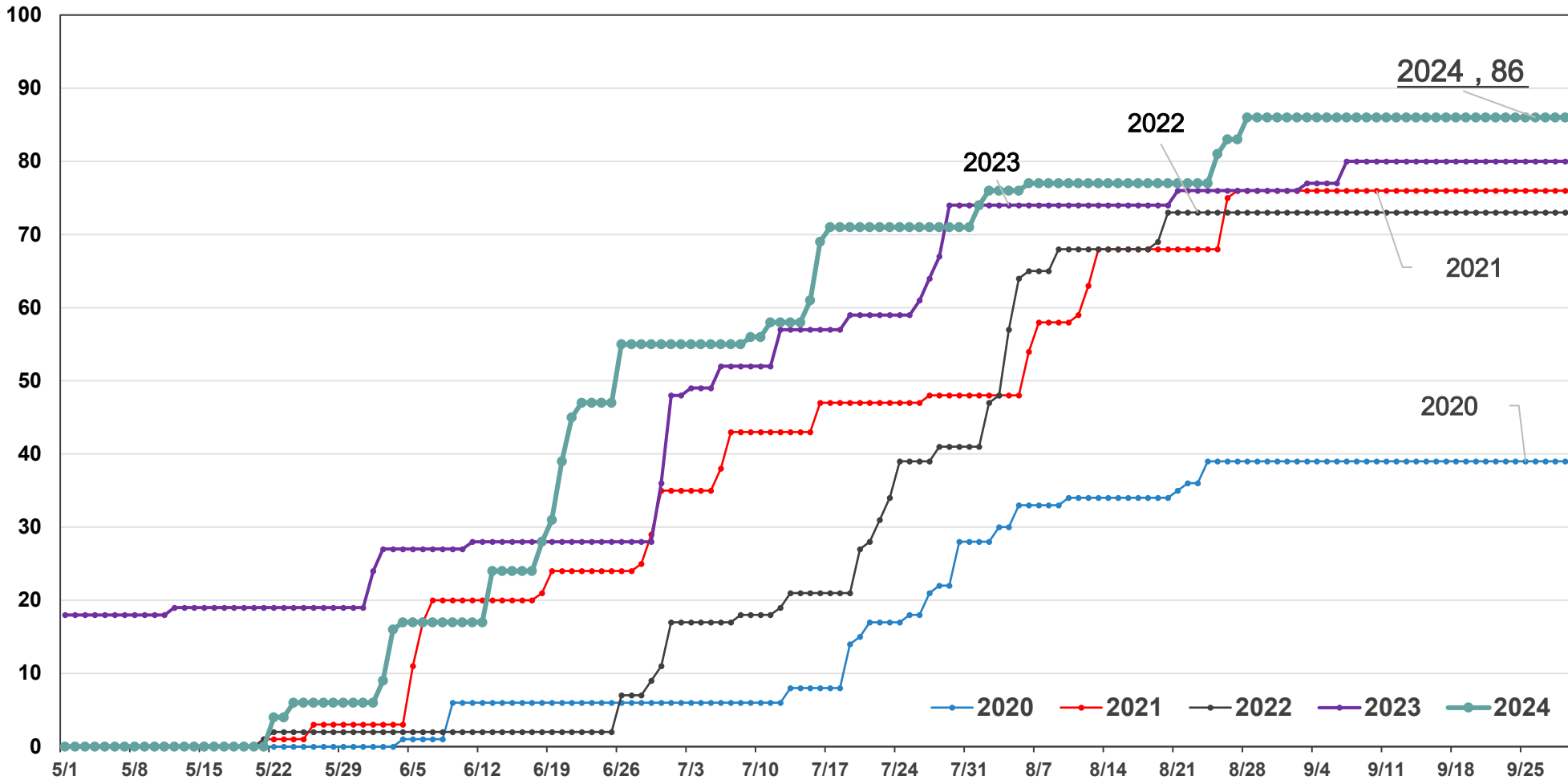
We ended the ozone season with 23 exceedance days.



* Start of COVID-19 Lockdown

ACCUMULATED SITE EXCEEDANCES

CT Accumulated Site Exceedances



Site exceedances in recent years:

- 2019 – 78 sites
- 2020 – 39 sites*
- 2021 – 76 sites
- 2022 – 73 sites
- 2023 – 80 sites
- 2024 – 86 sites

COOLING DEGREE DAYS

A cooling degree day (CDD) is the number of degrees a day's average temperature is above 65° F.

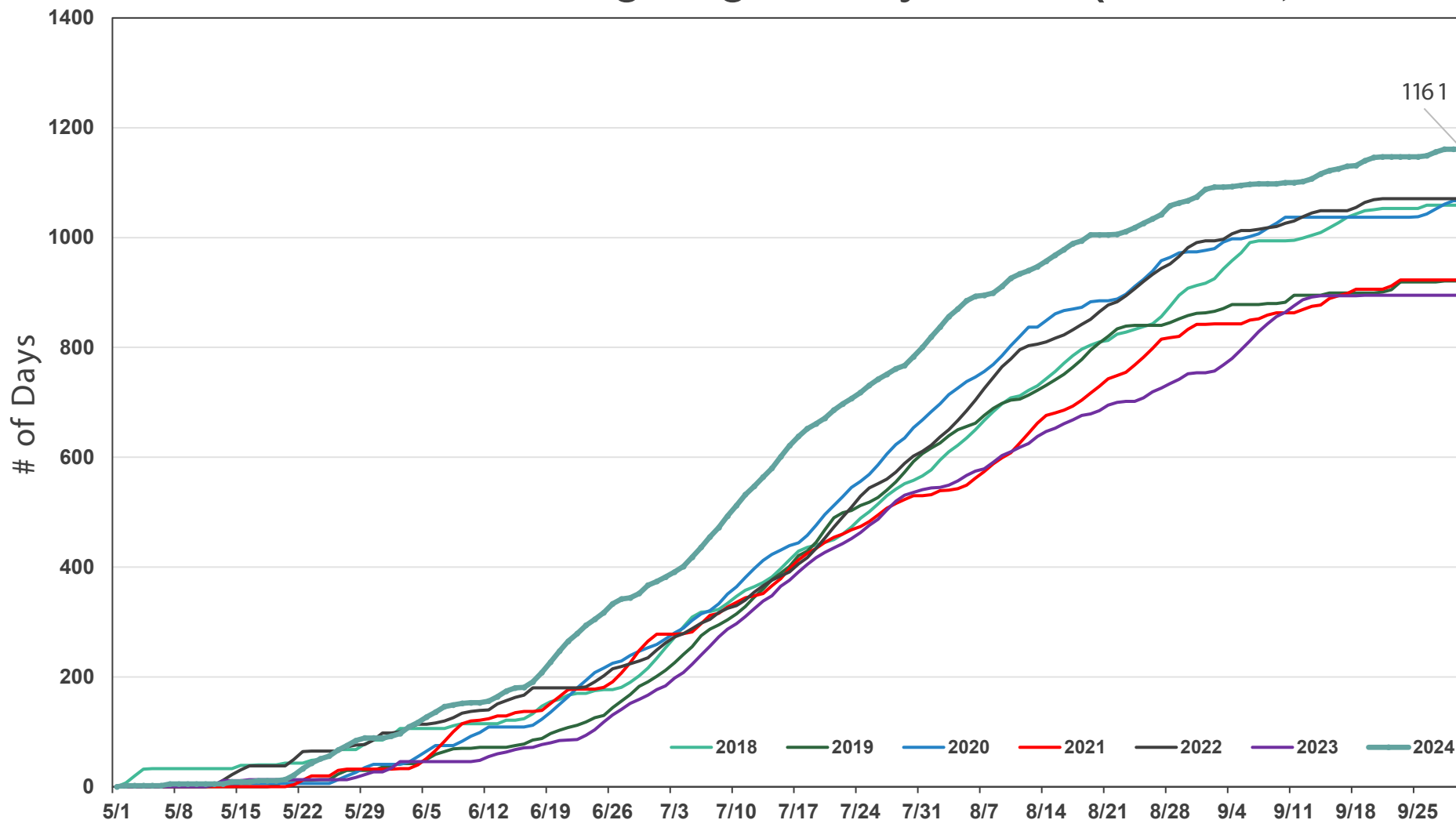
The first CDD for the 2024 ozone season occurred on May 2nd.

2022: 1,015 CDD and 73 site exceedances.

2023: 895 CDD and 80 site exceedances.

2024: 1,161 CDD and 86 site exceedances

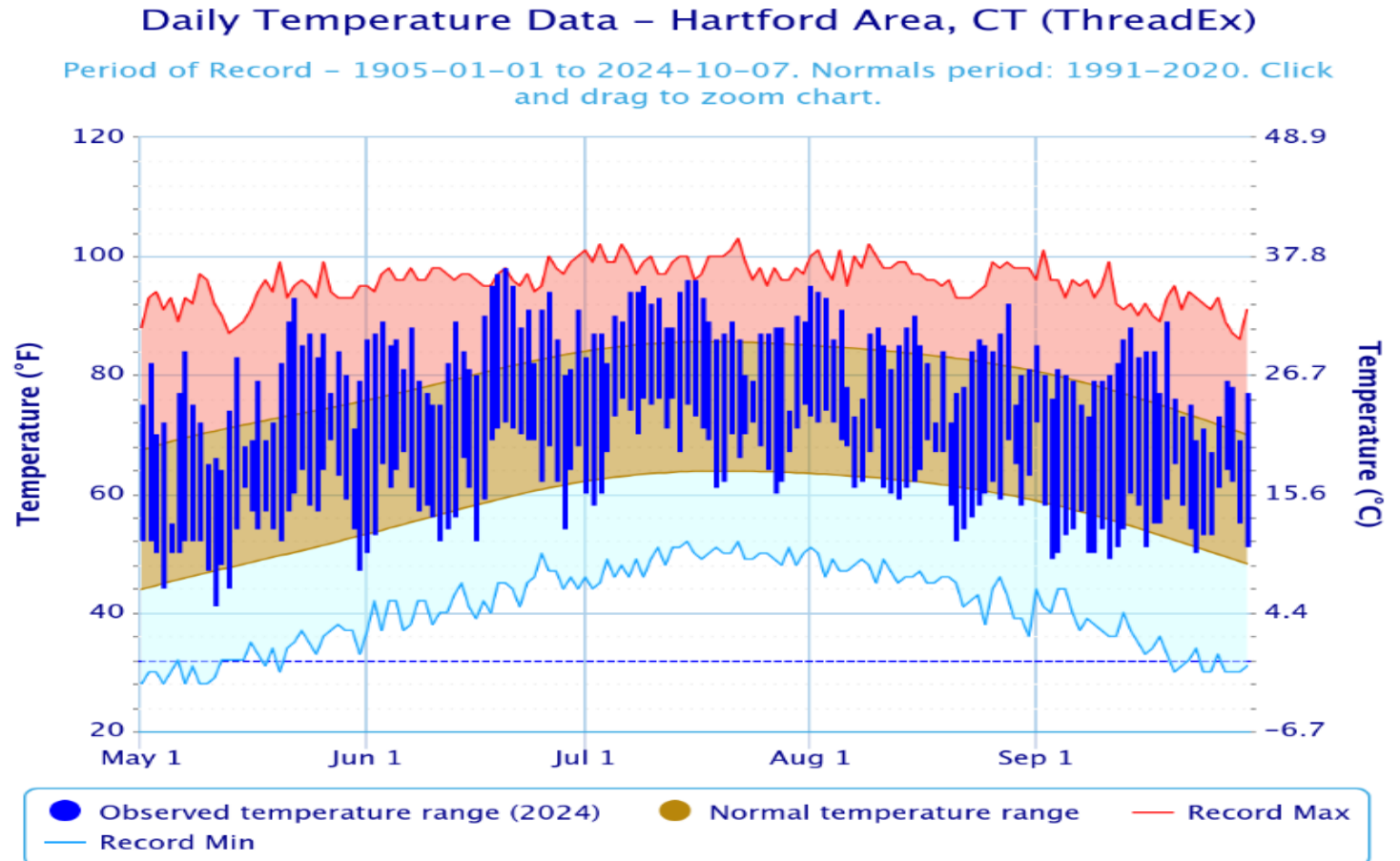
Accumulated Cooling Degree Days 2024 (65 °F)



TEMPERATURES AT BDL: MAY - SEPTEMBER

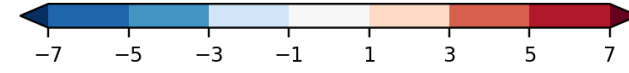
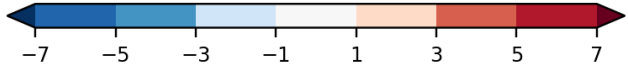
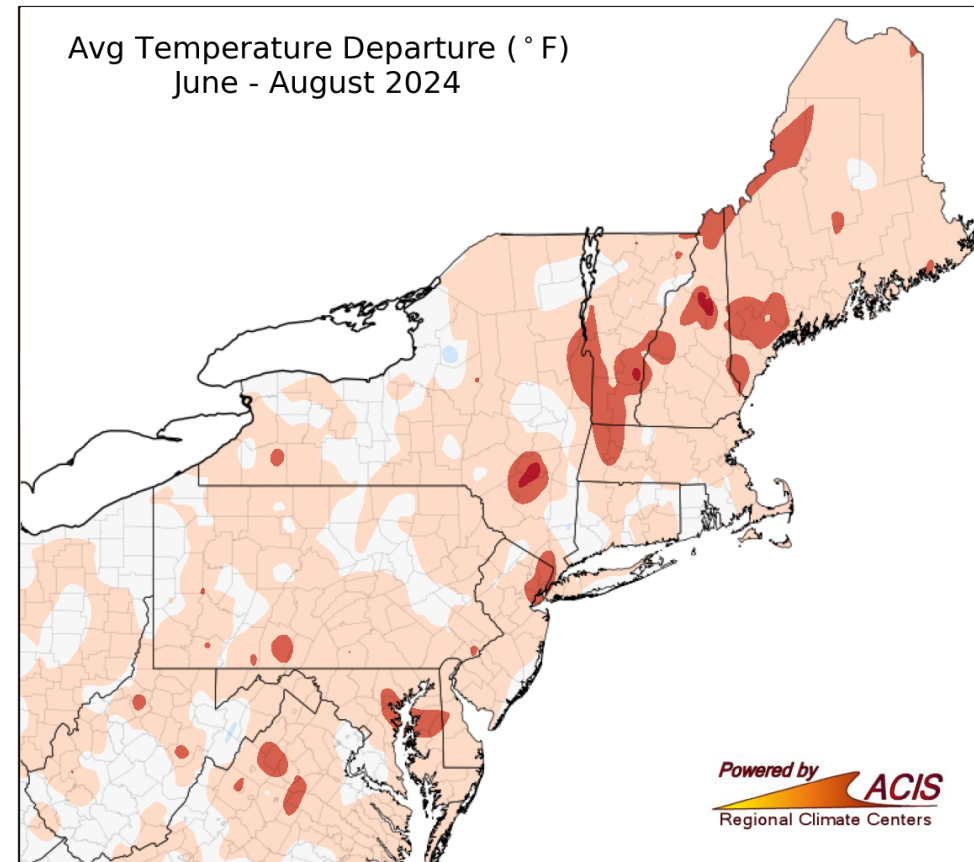
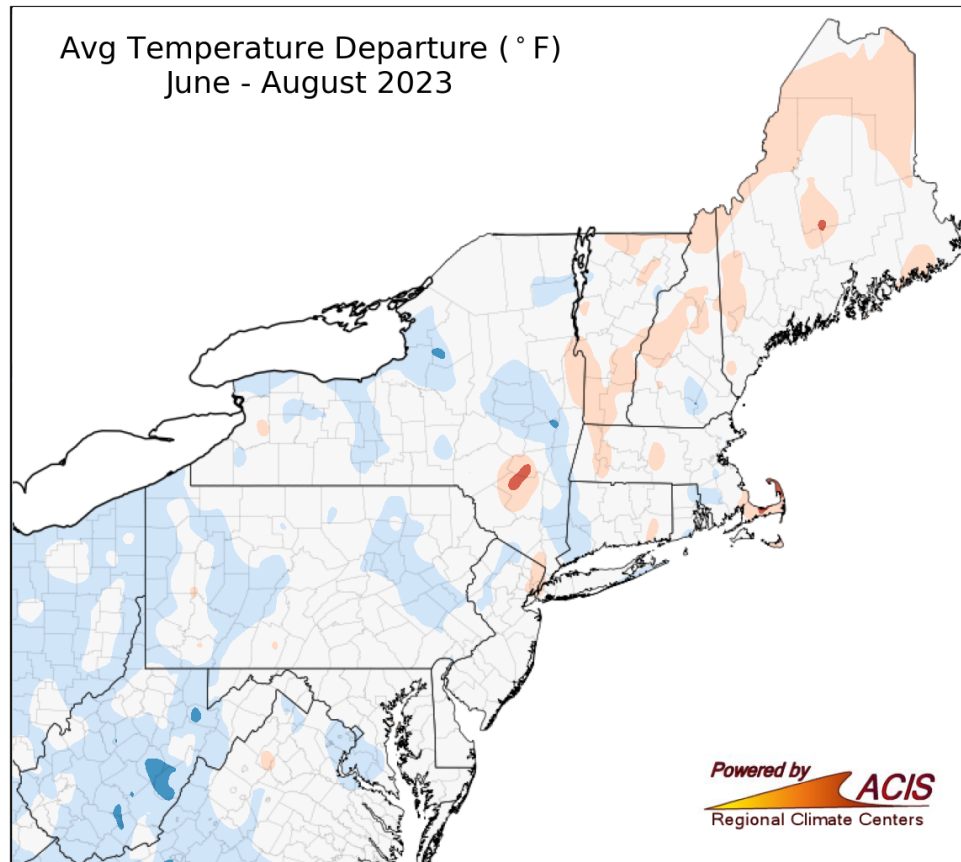
There were 24 days during May – September at or above 90°F recorded at Bradley International Airport compared to 12 days in 2023 (April-September).

We had one day with a record-breaking maximum temperature, June 19th (96°F).



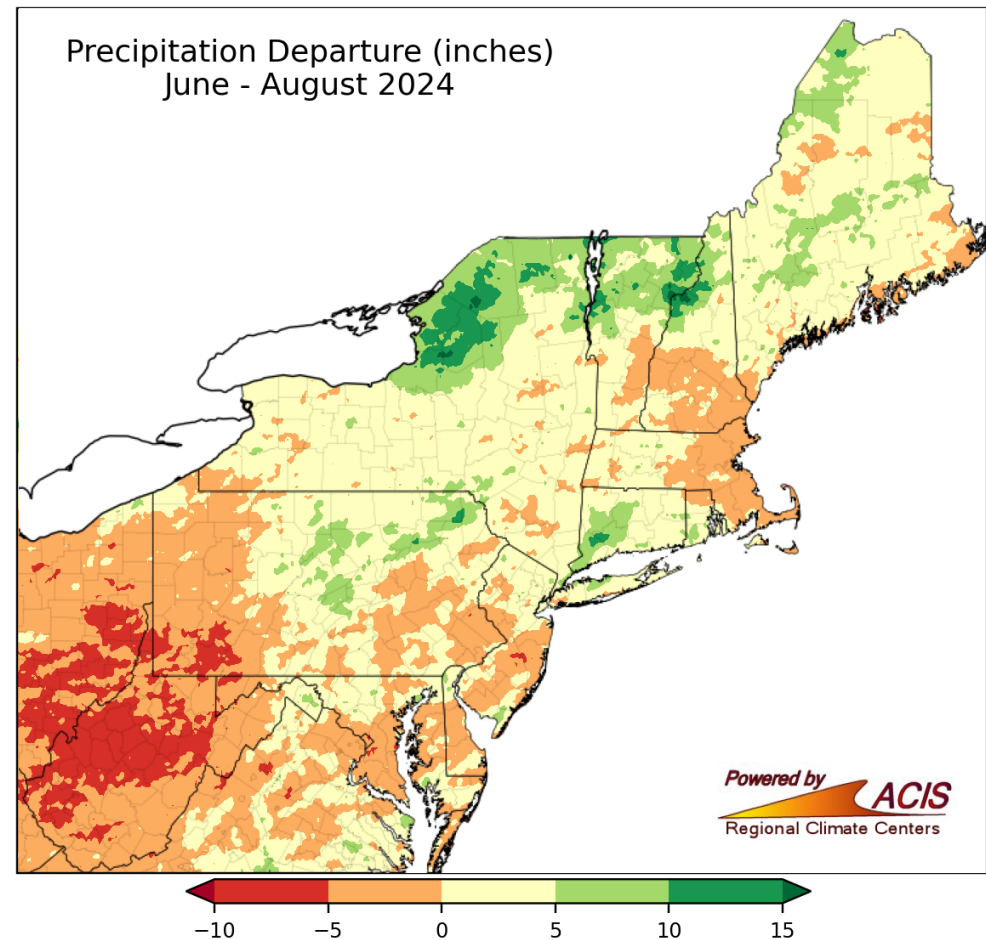
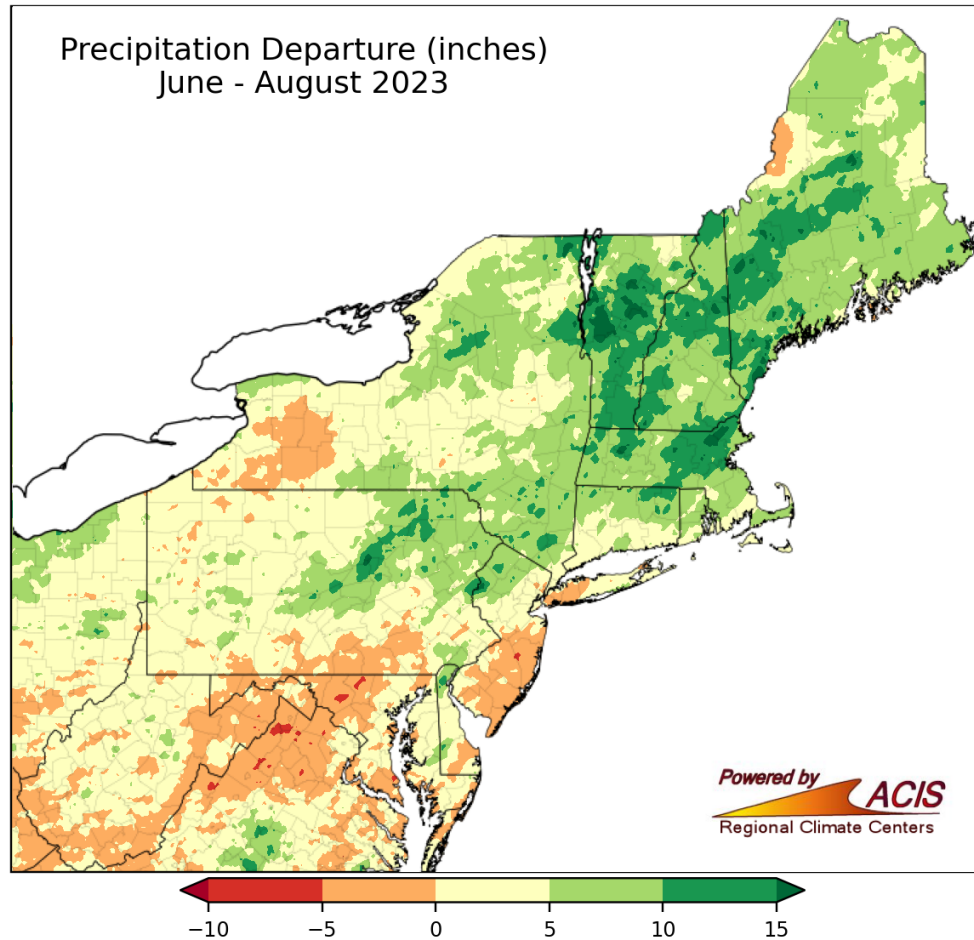
2023 VS 2024 TEMPERATURE

2024 averaged warmer surface temperatures from June – August.



2023 VS 2024 PRECIPITATION

2024 featured slightly drier conditions in northern CT, and slightly wetter conditions in SWCT.



2024 OZONE SEASON SUMMARY

- Connecticut had 23 ozone exceedance days in 2024, compared to 19 ozone exceedance days in 2023.
- Design values in Southwest Connecticut continue to exceed the 2008 and 2015 standards.
- Design Values in Greater CT for two sites exceed the 2015 standard.
- This season had more site exceedances than the previous few years.
- More multisite exceedances that were more inclusive of inland sites.
- Southwest winds, clear skies, and warm temperatures continue to contribute to ozone exceedances in Connecticut.
- In spite of it being a warmer year, Design Values in both areas decreased.