



2023 OZONE SEASON SUMMARY AND A LOOK INTO 2024!

SIPRAC

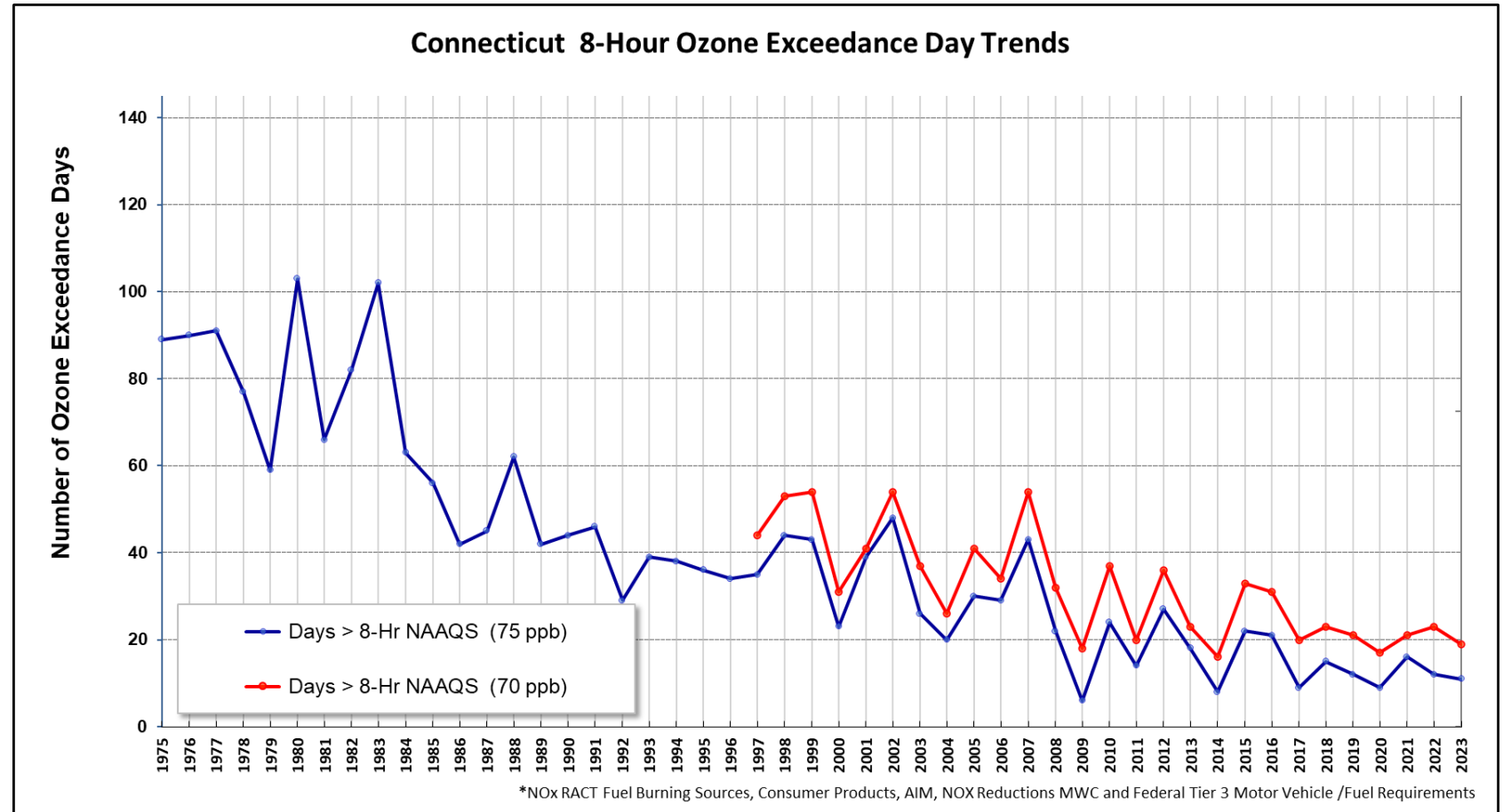
**Presented by: Daniella Lopez, Planning and Standards
Bureau of Air Management**

OZONE EXCEEDANCE DAY TRENDS

Exceedance days in recent years (70 ppb):

- 2018 – **23 days**
- 2019 – **21 days**
- 2020 – **17 days***
- 2021 – **21 days**
- 2022 – **23 days**
- 2023 – **19 days**

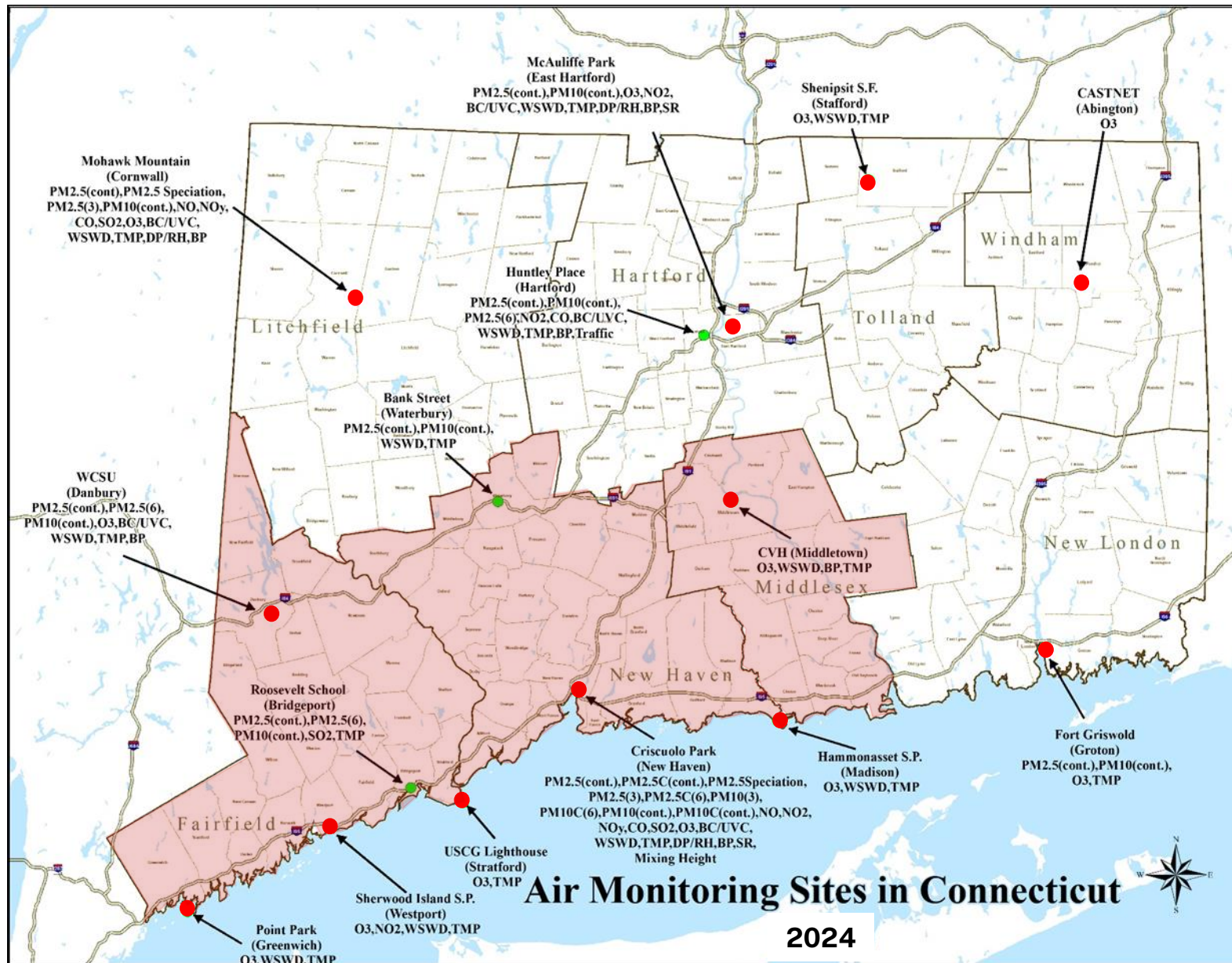
After a fairly consistent ozone season, we ended with 19 exceedance days.



* COVID-19 Shutdown

CONNECTICUT'S MONITORING SITES

- Ozone specific monitors
- NY-NJ-CT area



2023 OZONE SEASON SUMMARY

Month	April		May	June				July							Au	Sep				
Site	13	14	12	1	2	11	30	1	6	11	12	19	26	27	28	29	21	3	7	Site Exceedances
Abington	69	74	63	61	53	56	57	71	56	45	53	49	58	55	54	52	42	48	51	2
Cornwall	67	82	65	76	58	65	78	79	59	55	57	51	67	52	47	42	41	47	58	4
Danbury	68	85	60	73	58	72	85	83	68	56	64	55	75	59	50	55	47	50	70	6
East Hartford	67	84	59	73	69	41	73	82	69	48	64	47	64	61	48	53	60	48	61	4
Greenwich	72	76	66	73	81	64	81	82	77	72	89	70	82	72	75	71	66	61	87	14
Groton	76	73	70	40	49	58	70	76	62	60	81	61	59	49	69	71	50	61	64	5
Madison	82	75	75	50	66	60	78	77	61	68	81	62	64	55	64	81	74	71	69	9
Middletown	75	82	62	68	68	63	69	80	65	52	70	60	63	59	62	80	48	55	61	4
New Haven	58	66	64	50	65	66	80	72	69	54	66	66	61	52	64	82	49	60	54	3
Stafford	71	88	64	65	51	58	68	76	60	45	61	48	61	56	49	50	47	47	59	3
Stratford	77	72	69	57	75	63	81	86	76	70	89	73	70	62	72	86	74	66	77	12
Westport	79	78	70	72	80	63	79	82	71	68	89	74	75	74	74	79	69	60	76	14
Site Exceedances	7	11	1	5	3	1	8	12	3	1	5	2	3	2	3	7	2	1	3	80
# days > Federal Standard	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	

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 five ozone exceedance days reaching 'unhealthy' spread throughout April to September.

FORECASTED EXCEEDANCE DAYS

Actual Exceedance Days = 19 Forecast Exceedance Days = 11		
Month	Actual Dates	Forecast Dates
April	13 & 14	14
May	12	None
June	1, 2, 11, 30	1, 2
July	1, 6, 11, 12, 19, 26, 27, 28, 29	1, 5, 12, 26, 27, 28
August	21	None
September	3, 7	6, 7
Total	19	11

- Of the 19 exceedance days,
1. Forecasted USG for 9 days that exceeded the standard.
 2. Did not forecast USG for 10 days that exceeded the standard.
 3. Forecasted USG for 2 days that did not exceed the standard.

Some of the under-predicted days featured one or two sites that barely exceeded the standard. Elevated Smoke events also added to the uncertainty of an ozone exceedance for the other days

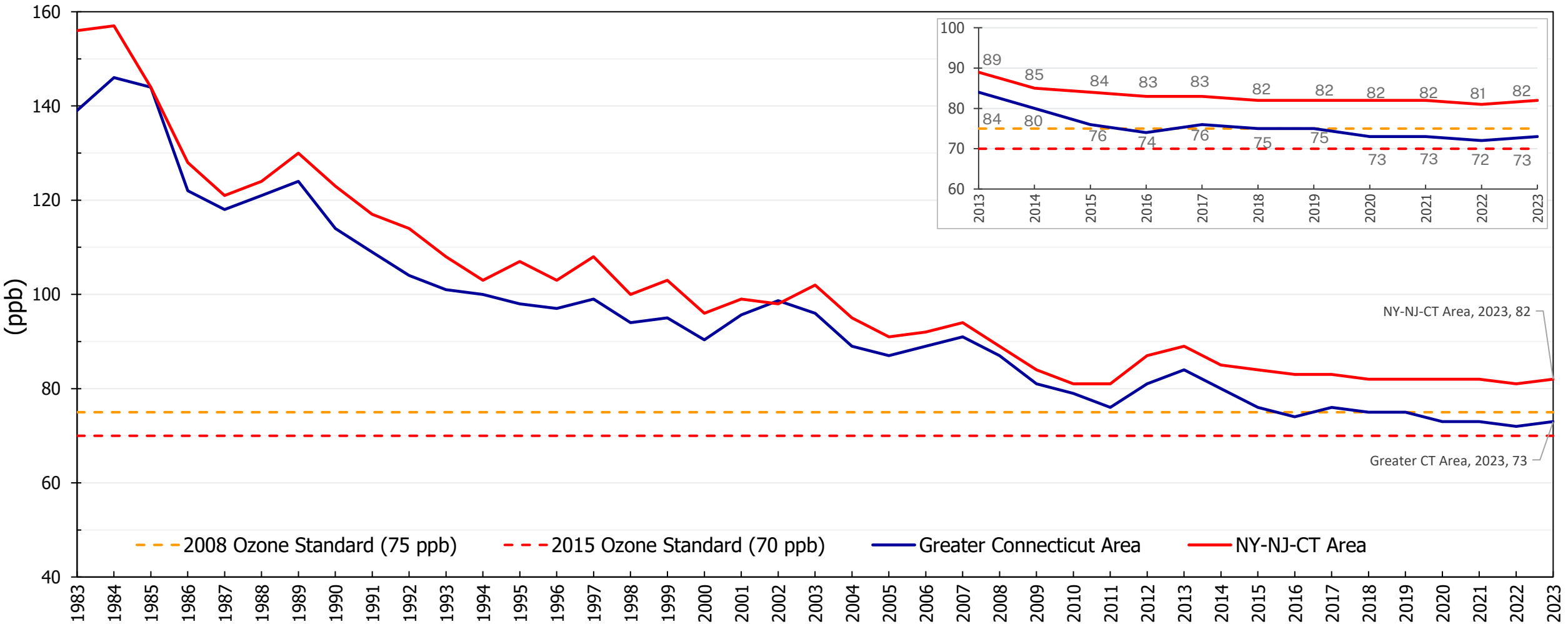
There were a lot of days with ozone values very close to the 70 ppb standard.

2023 DESIGN VALUES

		2023 Compliance Status x = Violating NAAQS							
		To Date: Prelim 2023 DV		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	73	X			1	more days > 81	ppb day(s) violate the	2008 NAAQS
	Greenwich	78	X	X		4	more days > 100	ppb day(s) violate the	1997 NAAQS
	Madison	79	X	X		4	more days > 95	ppb day(s) violate the	1997 NAAQS
	Middletown	75	X			1	more days > 76	ppb day(s) violate the	2008 NAAQS
	New Haven	70				1	more days > 69	ppb day(s) violate the	2015 NAAQS
	Stratford	82	X	X		3	more days > 87	ppb day(s) violate the	1997 NAAQS
	Westport	82	X	X		3	more days > 87	ppb day(s) violate the	1997 NAAQS
Greater CT	Cornwall	71	X			4	more days > 89	ppb day(s) violate the	2008 NAAQS
	East Hartford	71	X			4	more days > 87	ppb day(s) violate the	2008 NAAQS
	Groton	73	X			4	more days > 81	ppb day(s) violate the	2008 NAAQS
	Stafford	68				3	more days > 77	ppb day(s) violate the	2015 NAAQS
	Abington	65				4	more days > 80	ppb day(s) violate the	2015 NAAQS
Number of Exceedance Days to Date			19			The 1997 standard was repealed with the 2008 Implementation rule. Effective April 6, 2015			

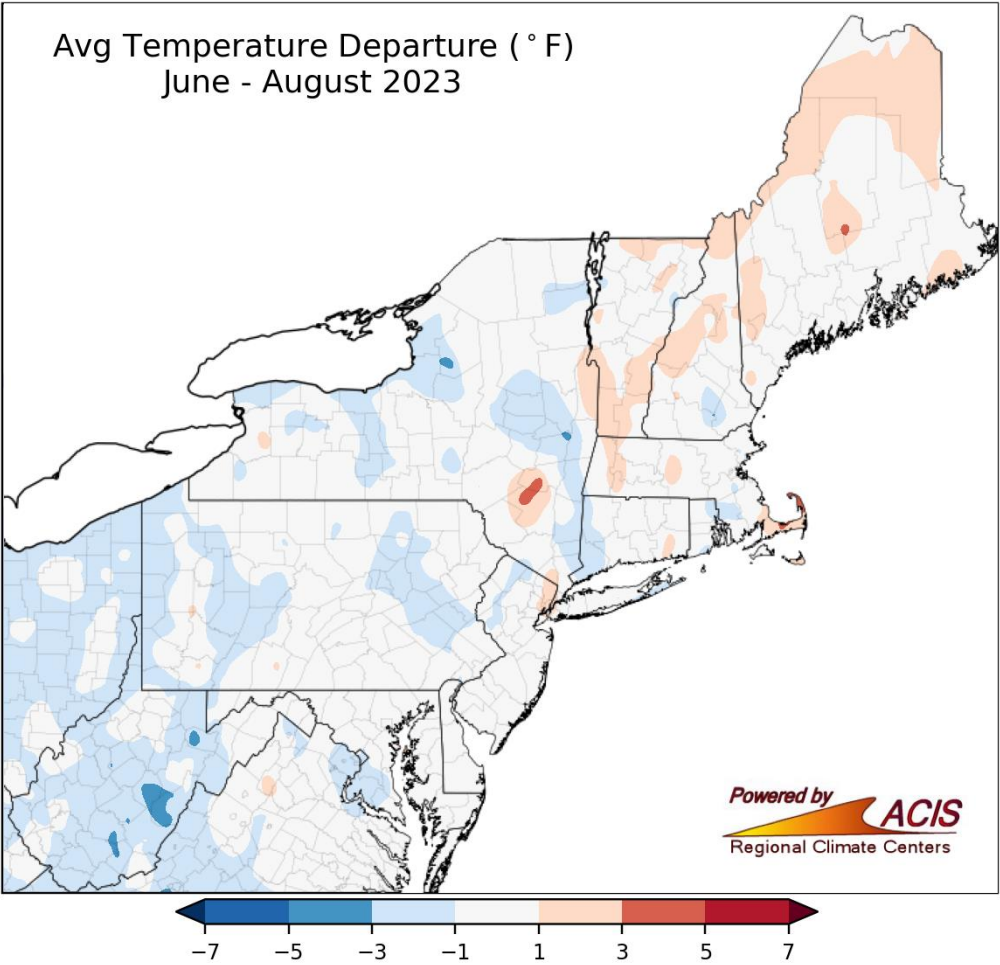
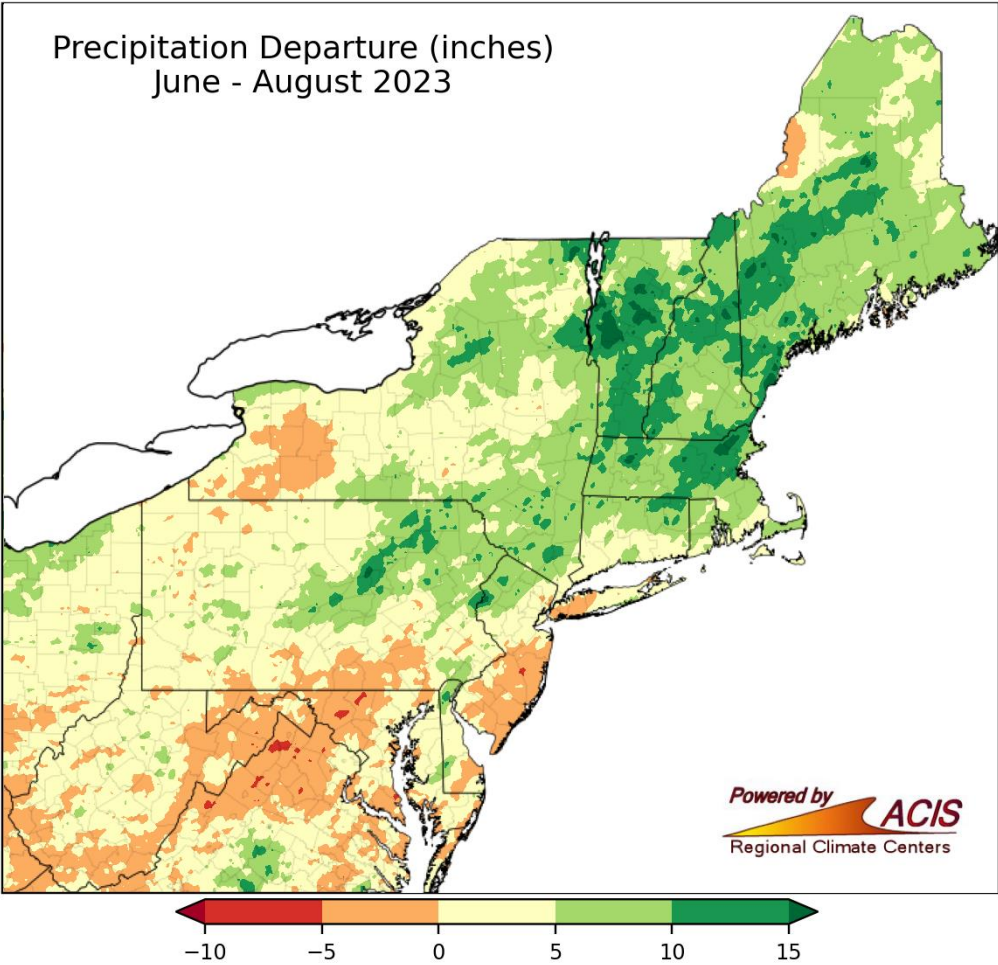
DESIGN VALUE UPDATE

Ozone Design Value Trends Connecticut's Two Nonattainment Areas



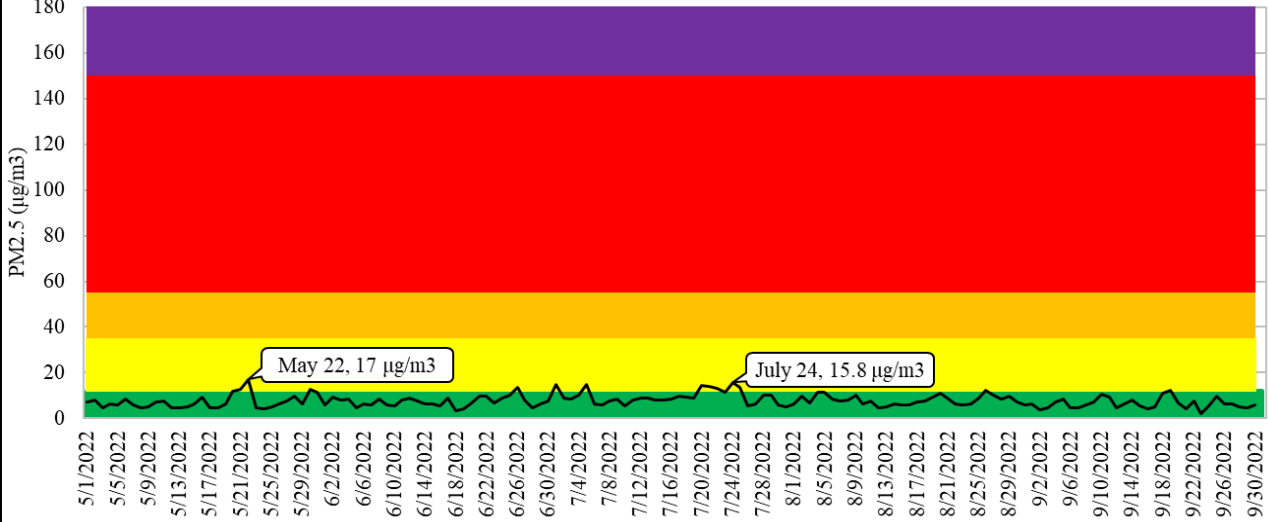
SUMMER 2023 PRECIPITATION & TEMPERATURE SUMMARY

Overall, we had more precipitation and average temperatures.

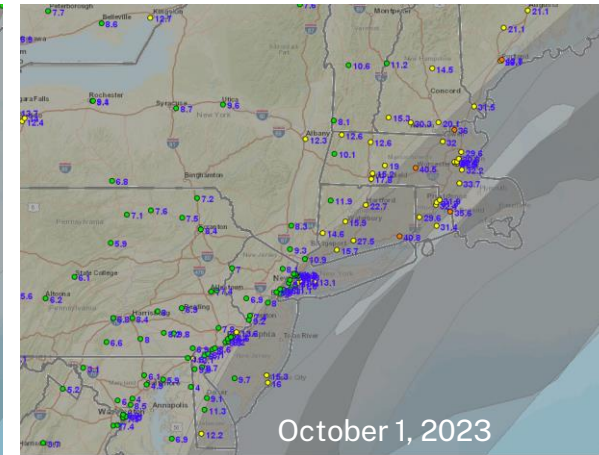
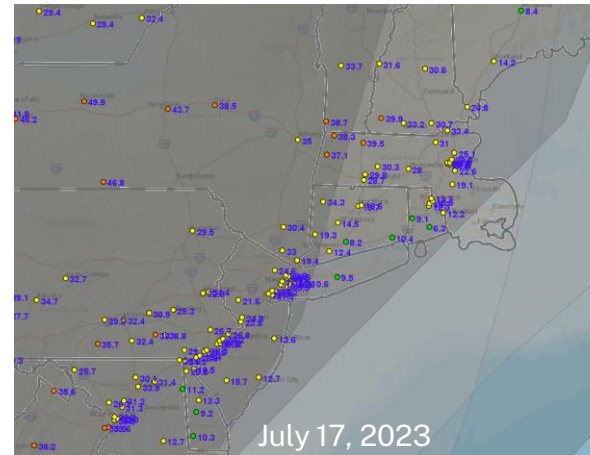
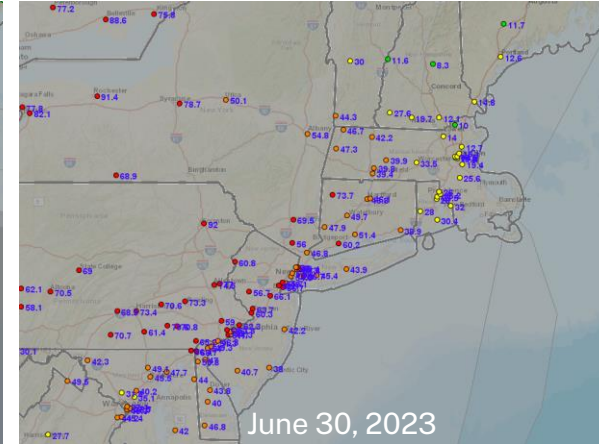
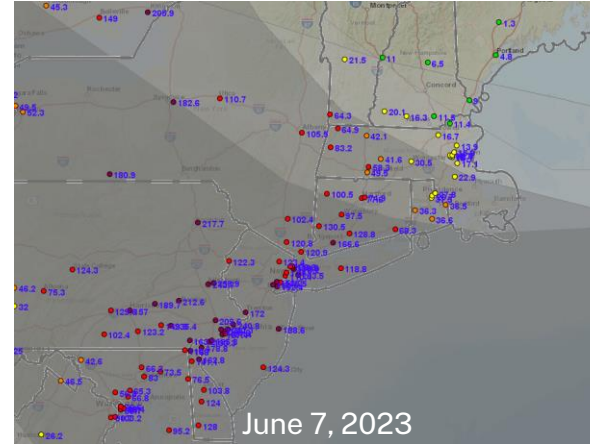
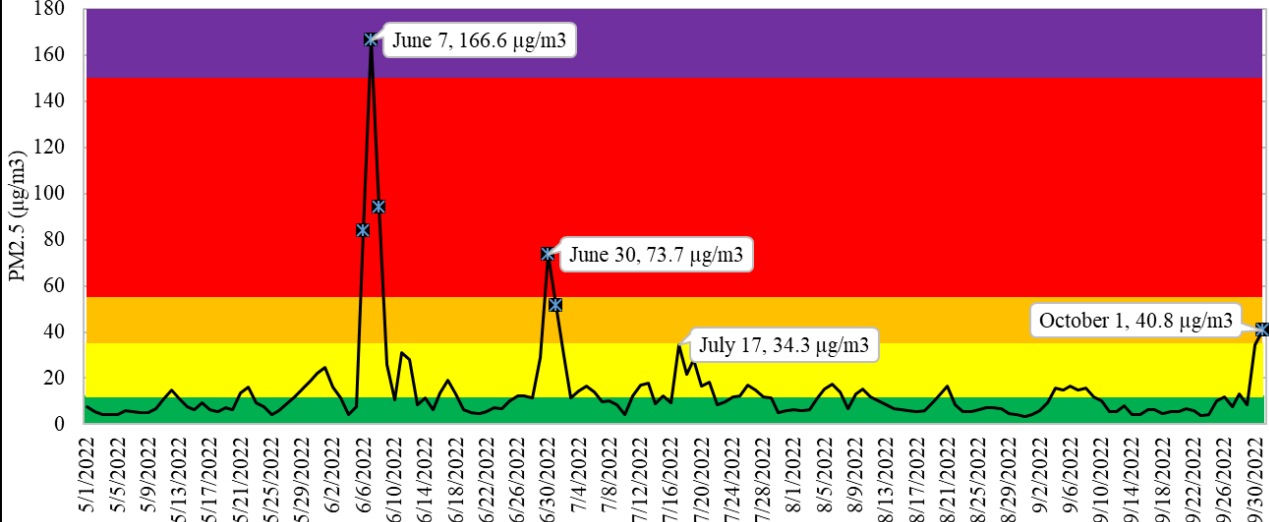


SMOKE INFLUENCE

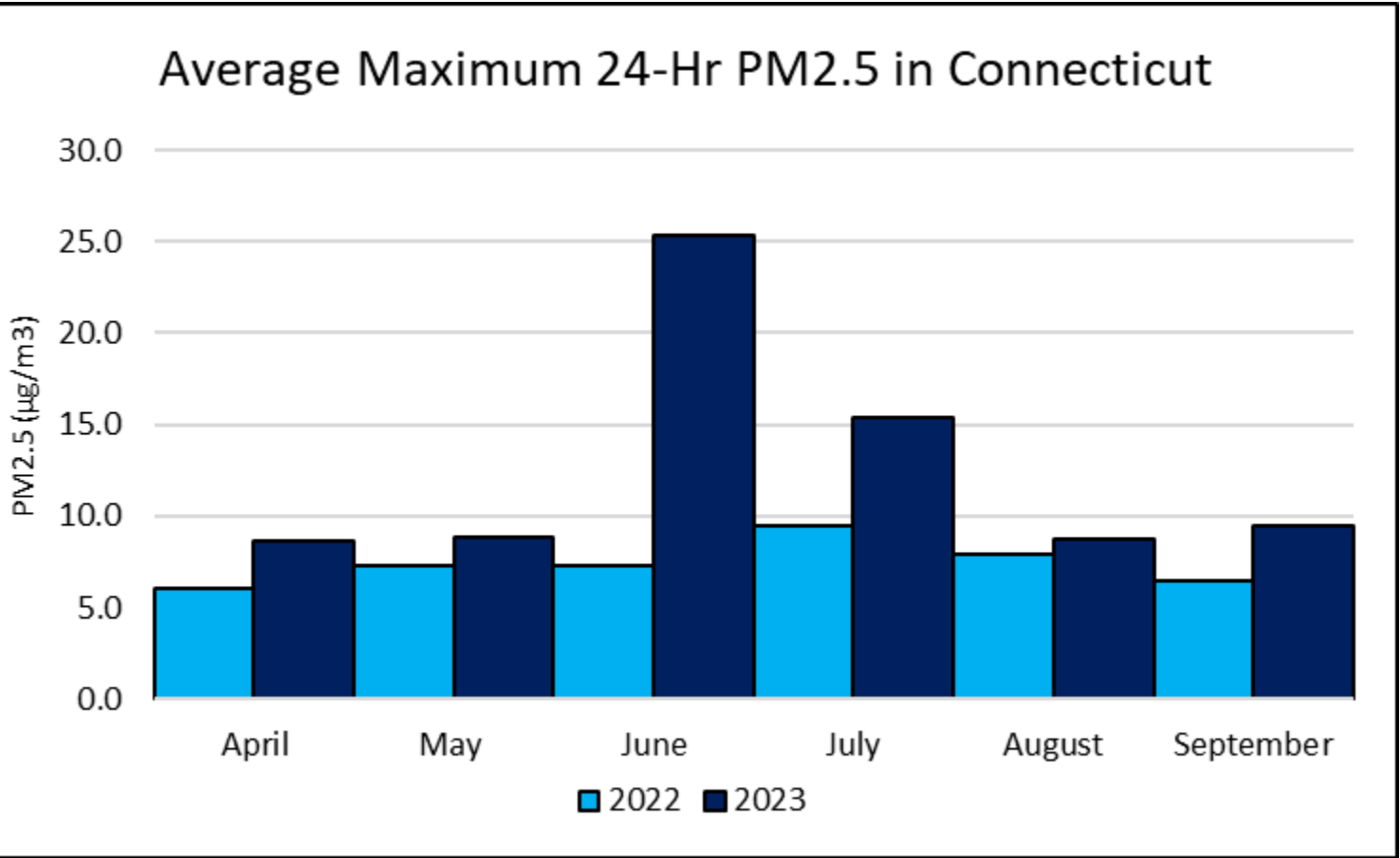
2022 Maximum 24-Hr Average PM_{2.5} in Connecticut



2023 Maximum 24-Hr Average PM_{2.5} in Connecticut



24-HR PM2.5 COMPARISON



Average Maximum 24-Hr PM2.5 by Month						
	April	May	June	July	August	September
2022	6.0	7.3	7.3	9.5	7.9	6.4
2023	8.6	8.8	25.4	15.4	8.8	9.4

EXCEPTIONAL EVENTS

Monitors

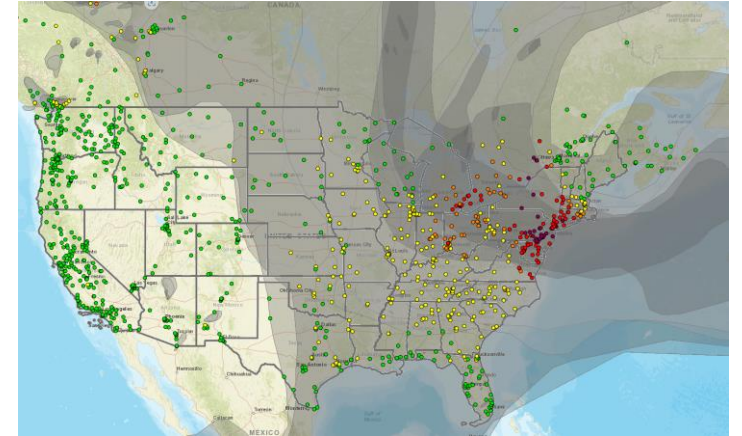
Cornwall, East Hartford, and Groton:

Events

April 13-14, 2023

June 30-July 1, 2023

July 12, 2023



[AirNow-Tech Navigator \(airnowtech.org\)](https://airnowtech.org)



[Wildfires cause 'very unhealthy' air quality in CT \(ctinsider.com\)](https://ctinsider.com)

Greater Connecticut						
			Ignoring EE		Excluding All EE	
Site	2021 4 th High	2022 4 th High	Current 4 th High	Current DV	Resulting 4 th High	Resulting DV
Cornwall	68	70	76	71	65	67
East Hartford	66	74	73	71	69	69
Groton	75	71	73	73	64	70

Draft out for Public Comment until May 10, 2024.

[2023 Exceptional Events \(ct.gov\)](https://ct.gov)

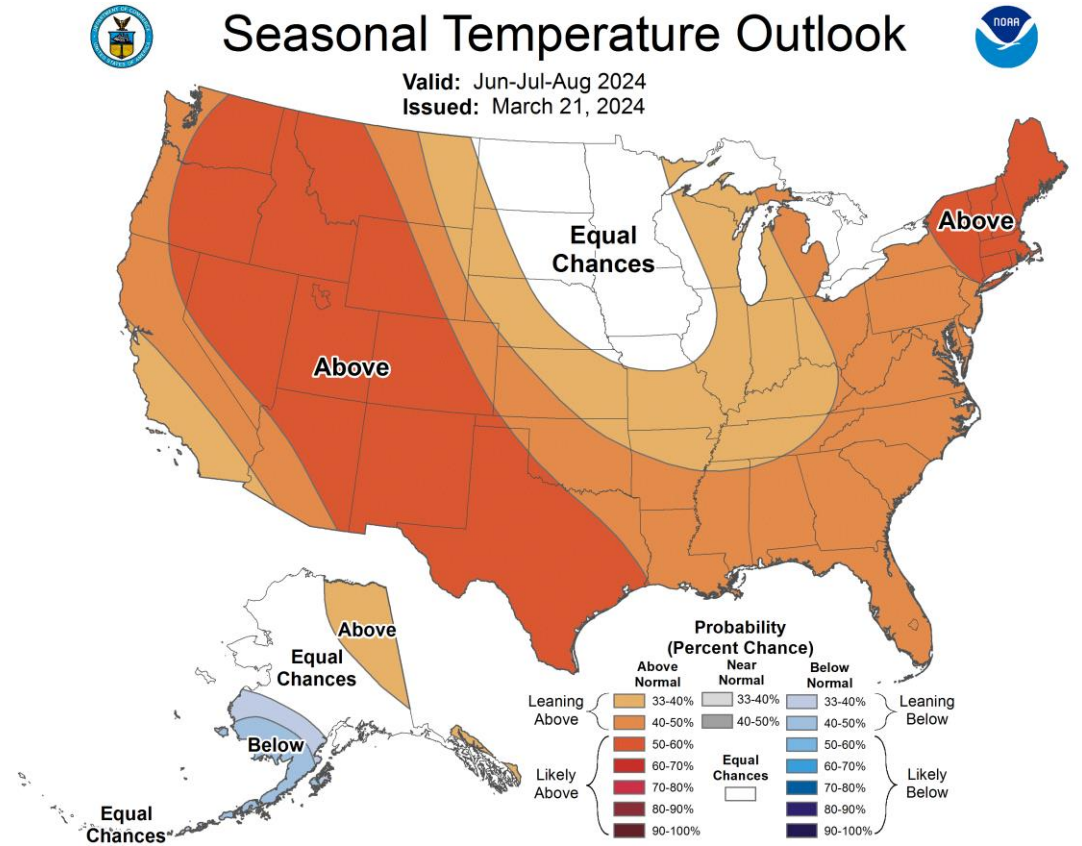
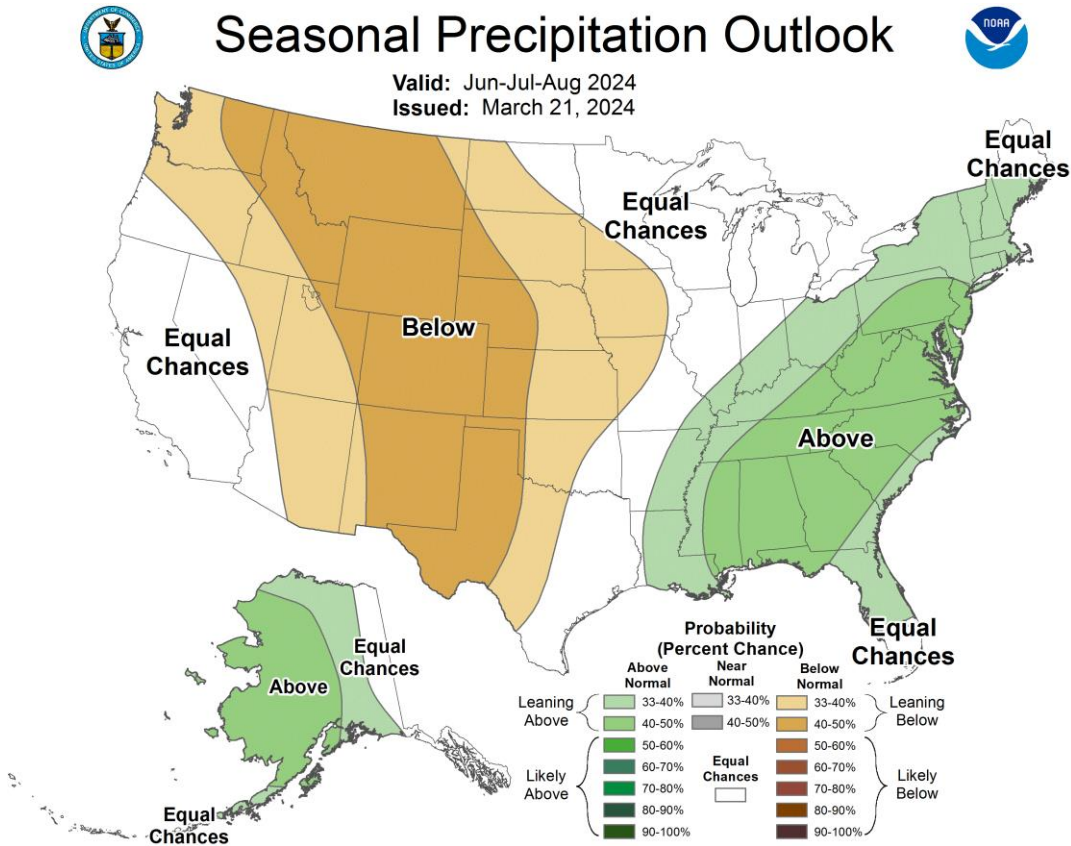
2023 OZONE SEASON SUMMARY

- **Connecticut had 19 ozone exceedance days in 2023, compared to 23 ozone exceedance days in 2022.**
- **Design values in Southwest Connecticut continue to exceed the 2008 and 2015 standards.**
- **Design Values in Greater CT for three sites exceed the 2015 standard.**
- **Although we had lower exceedance days this year (19), we had higher site exceedances (80) caused by smoke enhancement.**
- **PM2.5 values were significantly higher this year due to wildfire smoke events, this also influenced elevated ozone exceedances.**
- **With the approval of our exceptional Event Demonstration, we expect GRCT to comply with the 2015.**

A LOOK INTO 2024!



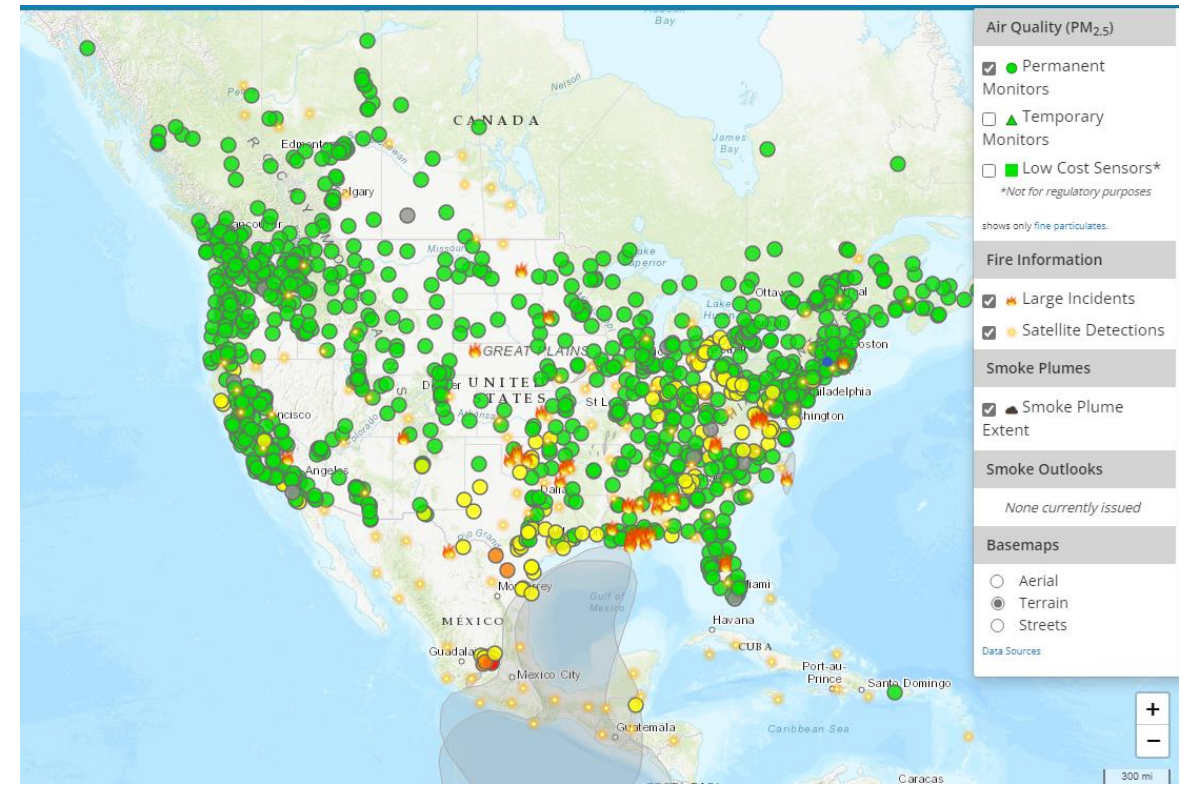
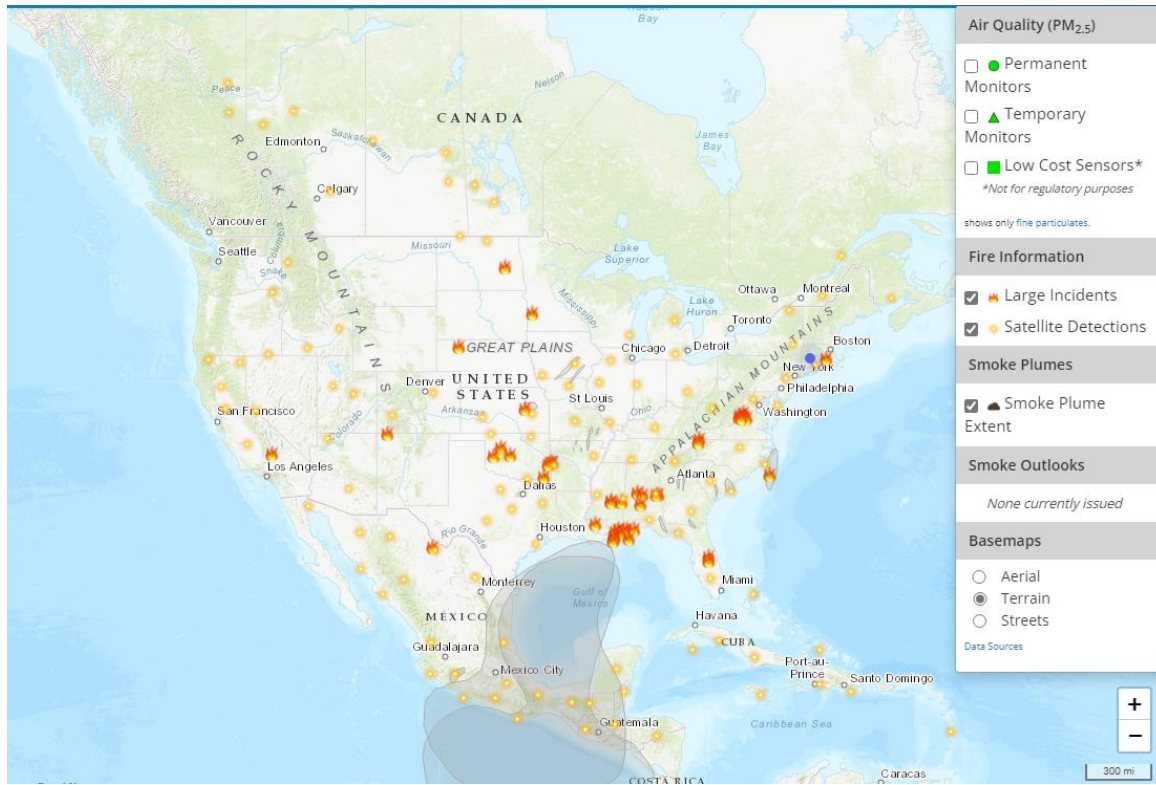
2024 FORECASTED PRECIPITATION & TEMPERATURE



Precipitation is forecasted to be slightly above average, while temperatures will be above average

AIR NOW FIRE AND SMOKE MAP

Fire and Smoke Map (airnow.gov)



2024 OZONE FORECASTING SEASON


Ozone Forecasting Season is May 1- Sept 30.


CTDEEP forecasts are available through:

1. List-server emails
2. Phone messaging
3. [CTDEEP AQI web page](#)
4. EPA Airnow forecasts

Receive notices of Daily AQI:

- [EnviroFlash](#) - Subscribe to receive air quality information by e-mail.
- Subscribe to the [DEEP Air Quality Information listserv](#) 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 listserv](#) to receive a daily 8-hour ozone forecast that is disseminated to Connecticut’s regulated community from May 1 through September 30.





Friday, September 30, 2022

Thursday's Forecasted Air Quality	G	
Friday's Forecasted Air Quality	G	

Predicted Daily Maximums for Friday, September 30, 2022				
Town	8-Hour Ozone		Particulate Matter	
	AQI Value	Air Quality	AQI Value	Air Quality
Bridgeport			38	G
Cornwall	27	G	21	G
Danbury	31	G	29	G
East Hartford	28	G	33	G
Greenwich	32	G		
Groton	29	G	25	G
Madison	30	G		
Middletown	28	G		
New Haven	30	G	29	G
Stafford	25	G		
Stratford	31	G		
Waterbury			38	G
Westport	32	G		

Air Quality Index (AQI) value of 100 = Federal Health Standard

Air Quality Index Value	Air Quality Descriptor
0 - 50	(G) Good
51 - 100	(M) Moderate
101 - 150	(USG) Unhealthy For Sensitive Groups
151 - 200	(U) Unhealthy
201 - 300	(VU) Very Unhealthy

DEEP's Air Quality Index: (860) 424-4167 or (800) 249-1234
 State clean air programs: (800) 249-1234
 Connecticut Department of Energy and Environmental Protection
 79 Elm Street, Hartford, CT 06106-5127

If you have questions about the Air Quality Forecast, call (860) 424-3027

REMINDERS FOR AN OZONE ACTION DAY

Drive Less

- Walk or ride a bicycle
- Use public transportation
- Join a carpool or vanpool
- Telecommute
- Combine errands



Around the House

- Set air conditioners to 78°
- Select water based paint
- Wait until 8 to use energy intensive appliances
- Use energy efficient products
- Buy environmentally friendly cleaners



Drive Clean

- Consider purchasing or leasing a plug in electric vehicle
- Tune your car regularly
- Avoid idling your vehicle unnecessarily
- Test vehicle emissions on time

In the Yard

- Use electric or hand powered equipment
- Reduce use of garden chemicals
- Delay mowing your lawn or using gas powered equipment until evening
- Refrain from recreational wood burning



Be a Smart Driver

- Refuel your vehicle after dusk
- Stop refueling when the nozzle clicks off
- Drive at fuel saving, moderate speeds



AIR QUALITY AWARENESS WEEK 2024

When

May 6th – May 10th



Where

[Air Quality Awareness Week | US EPA](#)

Theme

“Knowing Your Air”

Daily Topics!



Monday

Wildland Fires and Smoke



Wednesday

Air Quality and Climate



Tuesday

Asthma and Your Health

Friday

Air, Animals, and Plants



Thursday

Air Quality and Environmental Justice