

2000  
Annual Report on  
Air Quality in  
New England



United States  
Environmental Protection  
Agency  
Office of Environmental  
Measurement  
and Evaluation  
Lexington, MA 02421

June 2001

Ecosystems Assessment Unit

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## 2000 ANNUAL REPORT ON AIR QUALITY IN NEW ENGLAND

This report represents 2000 annual air quality information for all states in New England. The majority of the data included in this report were submitted to EPA by the states from their ambient monitoring networks in accordance with 40 CFR 58. The only data from industrial monitors which have been included are from the Massachusetts Industrial Network, EPA-required networks in New Hampshire and Maine's licensing program which supplements the state network.

This report reflects the status of the AIRS database as of June 2001. The majority of the data used have been evaluated and verified by EPA. However for determining potential nonattainment areas for planning purposes, the data may require further evaluation by both EPA and the states.

The first chart is the NAAQS which defines levels of pollution for the criteria pollutants. Following this is a list of health effects of the criteria pollutants.

The following section lists a summary of criteria pollutant data from sites in each state in New England, and from industrial sites in New Hampshire, Massachusetts, and Maine. The information presented compares the measured values to the level of each NAAQS; it includes the number of exceedences, the maximum and second high values, and the annual means (arithmetic mean or average for SO<sub>2</sub>, PM<sub>10</sub> and NO<sub>2</sub>). An annual mean is not valid for intermittent data unless there are four valid quarters. For PM<sub>10</sub>, 75% of the scheduled samples must be available for a quarter to be considered valid. For continuous data, 75% of the year must be available to calculate a valid annual average.

Included with this section, are graphs of selected air quality monitoring sites that show a ten-year span of data for PM<sub>10</sub>, CO, SO<sub>2</sub>, and NO<sub>2</sub>. A graph of the number of days ozone exceeded the standard during the last ten years is used. A discussion of the compliance status for each state is located in the front of the individual states section. In addition, state maps are included which display the location of monitoring sites.

The next table lists the precision and accuracy data submitted by the six New England states. The 95% probability limit for six criteria pollutants are given as a network average for each state.

On page 51 are maps of the PM-10, carbon monoxide and 1-hour ozone nonattainment areas in New England.

Appendix A is a list of AIRS state and regional Air Quality Contacts, their addresses and phone numbers.

NATIONAL AIR QUALITY STANDARDS<sup>a</sup>  
For Criteria Pollutants

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Primary Standards<sup>b</sup></u>	<u>Secondary Standards<sup>c</sup></u>
SO <sub>2</sub>	Annual Arithmetic Mean	80 ug/m <sup>3</sup> (0.03 ppm)	
	24 hours	365 ug/m <sup>3</sup> (0.14 ppm)	
	3 hours	--	1300 ug/m <sup>3</sup> (0.5 ppm)
Pmfine <sup>f</sup>	Annual (3-year average)	15.0 ug/m <sup>3</sup>	Same as Primary
	24 hours	3-year average of 98 <sup>th</sup> percentile values ≤65 ug/m <sup>3</sup>	Same as Primary
PM <sub>10</sub> <sup>d</sup>	Annual Arithmetic Mean	50 ug/m <sup>3</sup>	Same as Primary
	24 hours	150 ug/m <sup>3</sup>	Same as Primary
CO	8 hours	9 ppm	Same as Primary
	1 hour	35 ppm	Same as Primary
O <sub>3</sub> <sup>e</sup>	1 hour	0.125 ppm	Same as Primary
	8 hour	0.08 ppm	Same as Primary
NO <sub>2</sub>	Annual Arithmetic Mean	(0.05 ppm) 100 ug/m <sup>3</sup>	Same as Primary
	Calendar Quarter Arithmetic Mean	1.5 ug/m <sup>3</sup>	Same as Primary

<sup>a</sup> National standards, other than those based on annual arithmetic means, are not to be exceeded more than once a year.

<sup>b</sup> National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

<sup>c</sup> National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

<sup>d</sup> PM<sub>10</sub> replaced TSP as the ambient particulate standard effective July 31, 1987, and includes only those particles with an aerodynamic diameter of ≤ a nominal 10 microns. Expected number of exceedances shall not be more than one per year (3 year average) as determined by Appendix K and N of 40CFR Part 50.

<sup>e</sup> 1-Hour: Expected number of exceedance days shall not be more than one per year (3 year average) as determined by Appendix H of 40CFR Part 50.

8-Hour: The standards are met at an ambient air quality site when the average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to 0.08 ppm as determined by Appendix I of 40CFR 50.

<sup>f</sup> Appendix N of 40 CFR Part 50 gives the specific procedures for determining whether the PM<sub>2.5</sub> Primary and Secondary Annual and 24 Hour Standards are attained.

## Health Effects of Criteria Pollutants

### Lead (Pb)

Brain damage, kidney damage, and gastrointestinal distress are seen from short-term exposure to high levels of lead. Long-term exposure to lead in humans results in effects on the blood, central nervous system, blood pressure, kidneys, and Vitamin D metabolism. Children are particularly sensitive to the chronic effects of lead, with slowed cognitive development, reduced growth and other effects reported. The major sources of lead air pollution are lead smelters and battery manufacturing plants.

### Ozone (O<sub>3</sub>)

Ozone can irritate the respiratory system, causing coughing, throat irritation, and/or an uncomfortable sensation in the chest. Ozone can reduce lung function and make it more difficult to breathe deeply and vigorously. Ozone can aggravate asthma and increase susceptibility to respiratory infections. It injures vegetation, and has adverse effects on materials. Ozone is generally highest on sultry summer afternoons. Ozone is formed in the atmosphere by the reaction of nitrogen oxides, and hydrocarbons in the presence of sunlight.

### Sulfur Dioxide (SO<sub>2</sub>)

Children and adults with asthma who are active outdoors are most vulnerable to the health effects of sulfur dioxide. The primary effect they experience, even with brief exposure, is a narrowing of the airways, which may cause symptoms such as wheezing, chest tightness, and shortness of breath. Long-term exposure to both sulfur dioxide and fine particles can cause respiratory illness, alter the lung's defense mechanisms, and aggravate existing cardiovascular disease. It combines with water to form acid aerosols and sulfuric acid mist which falls to earth as acid rain, causing plant and structural damage, and acidifying bodies of water. Major sources include power plants and industrial boilers.

### Nitrogen Dioxide (NO<sub>2</sub>)

In children and adults with respiratory disease, nitrogen dioxide can cause respiratory symptoms such as coughing, wheezing, and shortness of breath, and affect lung function. In children, short-term exposure can increase the risk of respiratory illness. Studies suggest that long-term exposure may cause permanent structural changes in the lungs. The sources of nitrogen dioxide are motor-vehicle exhaust, and fuel combustion sources such as electric power generating facilities.

### Carbon Monoxide (CO)

People with cardiovascular disease, such as angina, may experience chest pain and more cardiovascular symptoms if they are exposed to carbon monoxide, particularly while exercising. In healthy individuals, exposure to higher levels of carbon monoxide can affect mental alertness and vision. Carbon monoxide forms when the carbon in fuels does not completely burn. Motor vehicles are the most significant source.

### Particulate Matter (PM<sub>2.5</sub> and PM<sub>10</sub>)

Both fine and coarse particles can accumulate in the respiratory system. When exposed to particulate matter (PM), people with existing heart or lung are at increased risk of premature death or admission to hospitals or emergency rooms. Children and people with existing lung disease may not be able to breathe as deeply or vigorously as they normally would, and they may experience symptoms such as coughing and shortness of breath. PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, causing more use of medication and more doctor visits. PM includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Sources of fine particles include all types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Sources of coarse particles include crushing or grinding operations, and dust from paved or unpaved roads.

Site Maps, Narratives, Summary  
Data  
and Charts for the Criteria  
Pollutants in the six New  
England States

### ABBREVIATIONS AND SYMBOLS USED IN TABLE 3

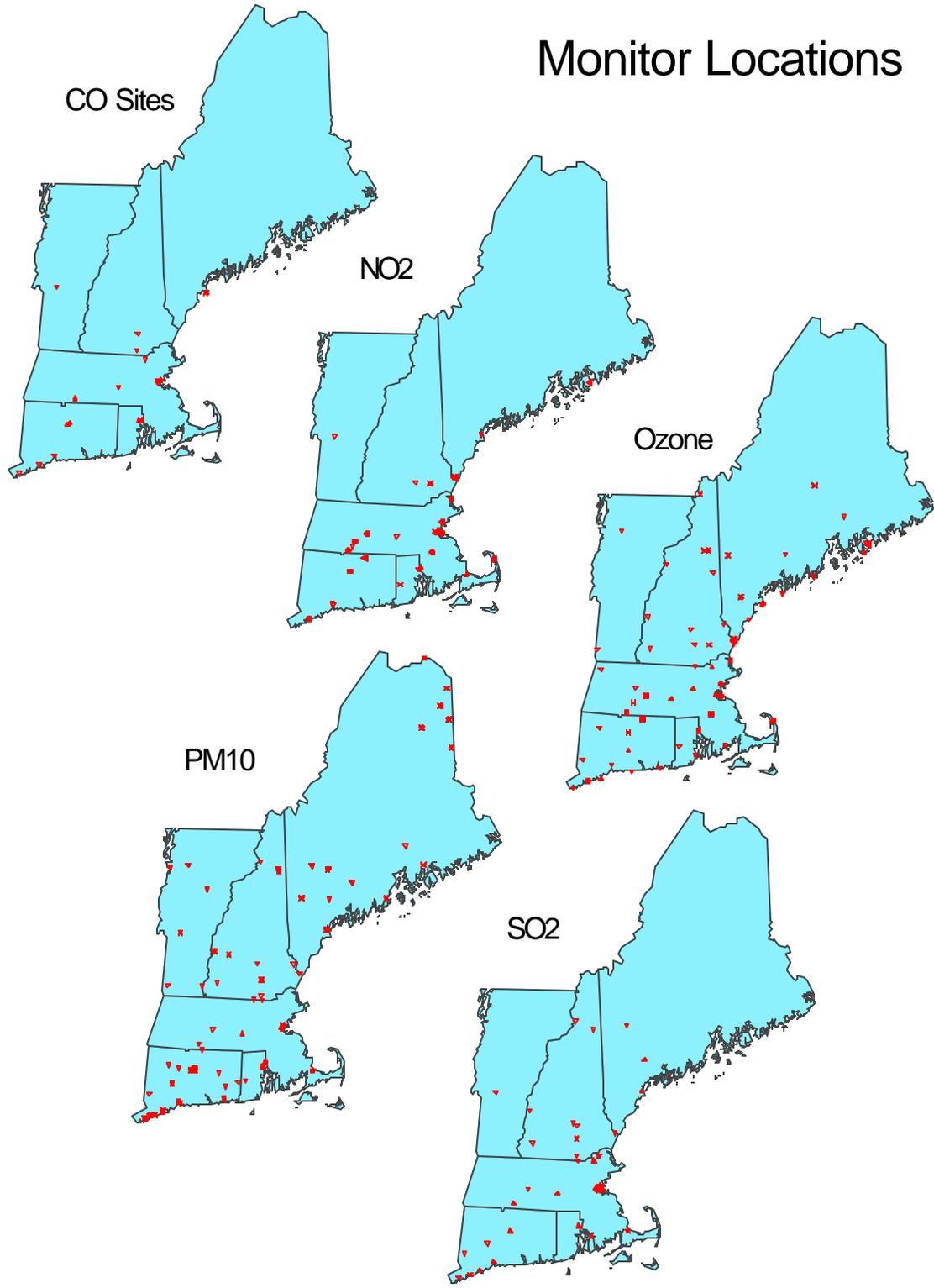
<b>SITE ID</b>	Site Identification number		than 35 ppm for CO
<b>POC</b>	Parameter Occurrence Code - differentiates between monitors for a given pollutant	<b>MAX 8-HR:</b>	1ST Highest 8-hour value recorded in the year 2ND Second highest 8-hour value recorded in the year
<b>MT</b>	Monitor type (1=NAMS, 2=SLAMS, 3=Other, 4=Industrial, 6,7,8=PAMS 0=Unknown, C=Non EPA Federal)	<b>OBS &gt; 9</b>	Number of 8-hour ave. greater than 9 ppm for CO
<b>YR</b>	Year	<b>OBS &gt; 365</b>	Number of 24-hour ave. greater than 365 ug/m <sup>3</sup> for SO <sub>2</sub>
<b>REP ORG</b>	Reporting Organization	<b>MAX 3-HR:</b>	1ST Highest 3-hour value recorded in the year 2ND Second highest 3-hour value recorded in the year
<b>#OBS</b>	Number of observations	<b>Obs &gt; 1300</b>	Number of 3-hour ave. greater than 1300 ug/m <sup>3</sup> for SO <sub>2</sub>
<b>MAX 24-HR:</b>	1ST Highest 24-hour value recorded in the year 2ND Second highest 24-hour value for the year 3RD Third highest 24-hour value for the year. 4TH Fourth highest 24-hour value for the year.	<b>NUM MEAS</b>	The valid number of days measured
<b>ARITH MEAN</b>	Arithmetic mean	<b>NUM REQ</b>	The valid number of days in the ozone season
<b>WTD ARITH MEAN</b>	Weighted arithmetic mean	<b>NUM OBS</b>	Number of observations
<b>GEO MEAN</b>	Geometric mean	<b>SCHEDULED NUM OBS</b>	Number of observations scheduled
<b>GEO STD</b>	Geometric standard deviation	<b>% OBS</b>	Percent completed of number of observations scheduled
<b>QUARTERLY ARITH MEANS:</b>		<b>VALID DAILY 1-HR MAXIMUM:</b>	Maximum hourly values for 1ST the highest day 2ND the second highest day 3RD the third highest day 4TH the fourth highest day
1ST	First quarter arithmetic mean	<b>VALS &gt; .125:</b>	<b>MEAS</b> Number of measured daily maximum $\geq$ 0.125 ppm <b>EST</b> Number of expected violations
2ND	Second quarter arithmetic mean	<b>MISS DAYS ASSUMED &lt; STANDARD</b>	Number of missing days assumed to be less than the standard
3RD	Third quarter arithmetic mean	<b>THE DATA IN TABLE 3 CONSISTS OF BOTH STATE AND PRIVATE NETWORKS.</b>	
4TH	Fourth quarter arithmetic mean		
<b>MEANS &gt; 1.5</b>	Number of quarterly means greater than 1.5 ug/m <sup>3</sup> for lead		
<b>MAX VALUES:</b>	1ST Highest 24-hour value recorded for the year 2ND Second highest 24-hour value recorded for the year.		
<b>METH</b>	Method		
<b>MAX 1-HR:</b>	1ST Highest 1-hour value recorded in the year 2ND Second highest 1-hour value recorded in the year		
<b>OBS &gt; 35</b>	Number of observations greater		

## 2000 NEW ENGLAND AMBIENT AIR QUALITY SUMMARY

Overall air quality in New England in 2000 was similar to 1998 and 1996. The summers of 1999 and 1997 were drier and hotter summers than the cooler and wetter summers of 2000, 1998 and 1996. Thus, ozone concentrations were relatively higher in 1999 and 1997 than in 2000, 1998 and 1996. Continued reductions in ozone precursor emissions throughout the last several years were major factors in mitigating these observed concentrations of ozone. In 2000 only eight ozone monitoring sites recorded one or more days over the 1-hour National Ambient Air Quality Standard (NAAQS) for ozone, while in 1999, twenty-one ozone monitoring sites recorded one or more days over the 1-hour standard. For comparison the number of ozone monitoring stations recording one or more days over the 1-hour standard was twenty in 1995, seven in 1996 (cool wet summer), twenty-five in 1997 and twelve in 1998 (cool wet summer). For the 8-hour ozone standard only seven monitoring sites reported a fourth high day equal to or above 85 parts per billion (ppb) in 2000 versus thirty-one in 1999. For comparison, twenty-six stations in 1998 and thirty-five stations in 1997 reported a fourth high day above 85 ppb. Ambient concentrations for the other criteria pollutants continued to be well below National Ambient Air Quality Standards (NAAQSs). Not a single site in New England reported data for any of the criteria air pollutants, other than ozone, above the NAAQSs.

In 1999 the New England states began monitoring for particulate matter of less than 2.5 microns in diameter (PM<sub>2.5</sub>). Currently there are 70 Federal Reference Method PM<sub>2.5</sub> samplers operating in New England. Typical of start-up of any new monitoring program of this magnitude, PM<sub>2.5</sub> data capture during 1999 was low. Both the 2000 and 1999 data show no exceedances of the 24-hour NAAQS and no station, which met the data capture requirements, exceeded the annual PM<sub>2.5</sub> NAAQS. There are some areas, including New Haven, Boston, Providence and Springfield, that have one or more sites with incomplete data that are slightly above the annual standard.

# Monitor Locations



- |                  |               |                  |                  |
|------------------|---------------|------------------|------------------|
| ▲ (B) NAMS       | ▼ (11) SLAMS  | × (1) Other      | + (D) Unknown    |
| ★ (D) Industrial | ○ (D) Tribal  | ◇ (D) Index Site | ◆ (D) Non-EPA    |
| ◀ (D) PAMS/VOC   | ■ (D) PAMS/NA | ● (D) PAMS/SL    | ◁ (D) PAMS(pend) |

## Use of Data Qualifiers for PM2.5 Data

EPA has developed a set of generic data qualifiers (flags) which allow data to be entered in AIRS that the State/locals believe have value, but are unsure of its quality. The approach tries to provide a balance of ease of use and specificity. Due to limitations in the current AIRS network, the only place for flags is in the exceptional event area where most letters are already in use. There are 4 flags already associated with PM2.5. The flags T, W, X and Y are the flags associated with the sampler acceptance criteria. These flags are associated with the sample being out of specifications for flow rate, filter temperature differential, and/or elapsed time. A "T" flag indicates the sample has multiple flags. There are 6 other flags associated with PM2.5. These are listed below:

1. Deviation from a Code of Federal Regulation requirement- Data collected did not or may not meet all of the critical criteria for sampling and analysis as specified in CFR and the Validation Template critical criteria table. State Agencies may use this flag when it is unclear of the effect of the deviation on data quality. This flag should be rarely used, but there may be instances where other QA/QC information tend to validate the sample or changes/updates to the critical criteria table may allow utilization of the data for some purposes.
2. Operational Deviations- Data quality may be impacted by sampling and analysis procedures which did not or may not comply with acceptable range or threshold values from either the Validation Template or the operational evaluations table.
3. Field Issue- Data that may have been effected by events occurring in the field that could potentially have compromised the integrity of the sample (oil crystallization, excessive dust etc.)
4. Laboratory Issue- Data that may have been effected by events occurring in the laboratory that could potentially have compromised the integrity of the sample (cassette off gassing, etc.)
5. Outlier - Data value that appears to be invalid either because it is outside the normal/expected range of concentrations or fails various statistical or comparison tests. However, there is no additional information available that would provide a reason to invalidate the value(s).
6. Quality Assurance Project Plan (QAPP) - Data collection prior to QAPP approval.

## CONNECTICUT SUMMARY

There are five carbon monoxide (CO) monitoring sites in Connecticut. In 2000 the Hartford Courthouse site recorded a maximum 8-hour concentration of 8.5 ppm (94% of the NAAQS). The 1999 data showed a maximum of 5.6 ppm, while the 1998 8-hour maximum concentration was 7.9 ppm. The 1997 8-hour concentration was 6.1 ppm, the 1996 maximum was 9.1 ppm and the 1995 maximum was 10.1 ppm. The ten-year trend graphs for CO show that the data are well below the standards and the trend lines have slight downward slopes.

At the end of 1996, lead (Pb) monitoring in Connecticut was discontinued at all sites, except Waterbury. There had been no exceedances or violations of the quarterly lead (Pb) NAAQS at any site in Connecticut for many years. In 2000 the Waterbury site reported a maximum quarterly average of 0.02 ug/m<sup>3</sup> or 1.4% of the NAAQS.

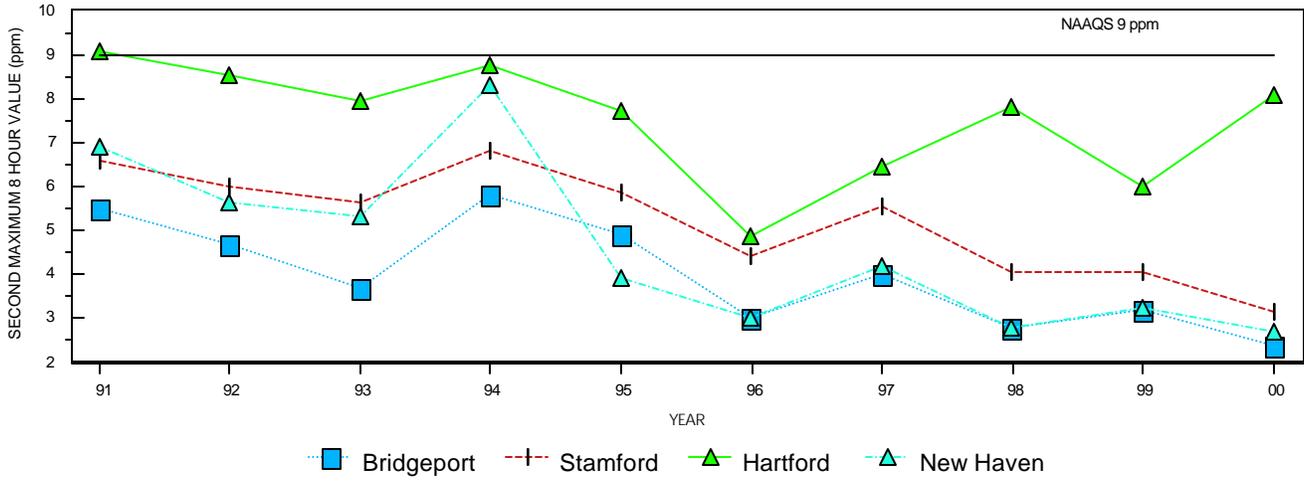
None of the five sites that monitored for nitrogen dioxide (NO<sub>2</sub>) in 2000 experienced any violations of the NAAQS. New Haven reported values that were 50% of the NAAQS. The photochemical assessment monitoring stations (PAMS) in Stafford Springs, Hamden and Westport that operate during the summer season and had seasonal arithmetic means of 12%, 24%, and 36% of the NAAQS. The PAMS site in East Hartford, which operated for the entire year, had an annual mean that was 34% of the NAAQS. The ten-year trend graphs show that the annual average NO<sub>2</sub> concentrations for these sites have been relatively constant with small year to year fluctuations.

In 2000 five of the twelve ozone (O<sub>3</sub>) sites in Connecticut had exceedances of the 1-hour ozone standard and/or were in violation of the 1-hour NAAQS. In 1999, all twelve ozone sites reported data above the 1-hour NAAQS for ozone. In 1998, seven of eleven sites reported exceedances above the level of 1-hour ozone NAAQS. In 1997, ten of eleven sites measured exceedances, while in 1996 only five sites reported levels of this magnitude. In 1995 eleven sites reported exceedances of the 1-hour NAAQS. The observed increases in ozone levels in 1999, 1997 and 1995 were due in part to the hotter, drier summers versus the cooler, wetter summers of 2000, 1998 and 1996. Middletown reported the highest 1-hour second maximum value of 0.136 ppm or 113% of the NAAQS. The ten-year trend lines for 1-hour ozone concentrations show large fluctuations in the number of days above the NAAQS. For the 8-hour ozone standard during 2000, five of the twelve ozone sites reported a fourth high day of at least 85 ppb. In 1999, all twelve O<sub>3</sub> sites reported a fourth high day of at least 85 ppb. The maximum 8-hour average for 2000 was recorded in both Stratford and Danbury at 0.90 ppm. In 1999 the highest 8-hour ozone site was Stratford at 0.133 ppm. In 1998 the site with the maximum 8-hour average was Stafford with a value of 0.118 ppm. In 1997 the site with the maximum 8-hour average of 0.151 ppm was Madison.

None of the Connecticut sites, which collected particulate matter of less than 10 microns in diameter (PM<sub>10</sub>), recorded any exceedances of the annual or 24-hour standards in 2000. The New Haven Stiles Street site reported the highest 24-hour second maximum value of 86 ug/m<sup>3</sup> or 57% of the NAAQS. The New Haven Stiles Street site had annual arithmetic mean of 64% of the NAAQS. The ten-year graphs show slight downward trends for PM<sub>10</sub>. For PM<sub>2.5</sub> Connecticut established a network of thirteen stations which began sampling in 1999. In general the New Haven area reported the highest PM<sub>2.5</sub> concentrations.

There were no exceedances or violations of the annual, 24-hour, or 3-hour SO<sub>2</sub> NAAQSs. The highest annual arithmetic mean was reported at New Haven at 6 ppb or 20% of the NAAQS, while the lowest annual arithmetic mean was reported at Danbury at 3 ppb or 10% of the NAAQS. New Haven reported the highest 24-hour second maximum of 31 ppb or 22% of the NAAQS. Overall the ten-year SO<sub>2</sub> trend graphs show decreasing trends.

# CONNECTICUT CARBON MONOXIDE

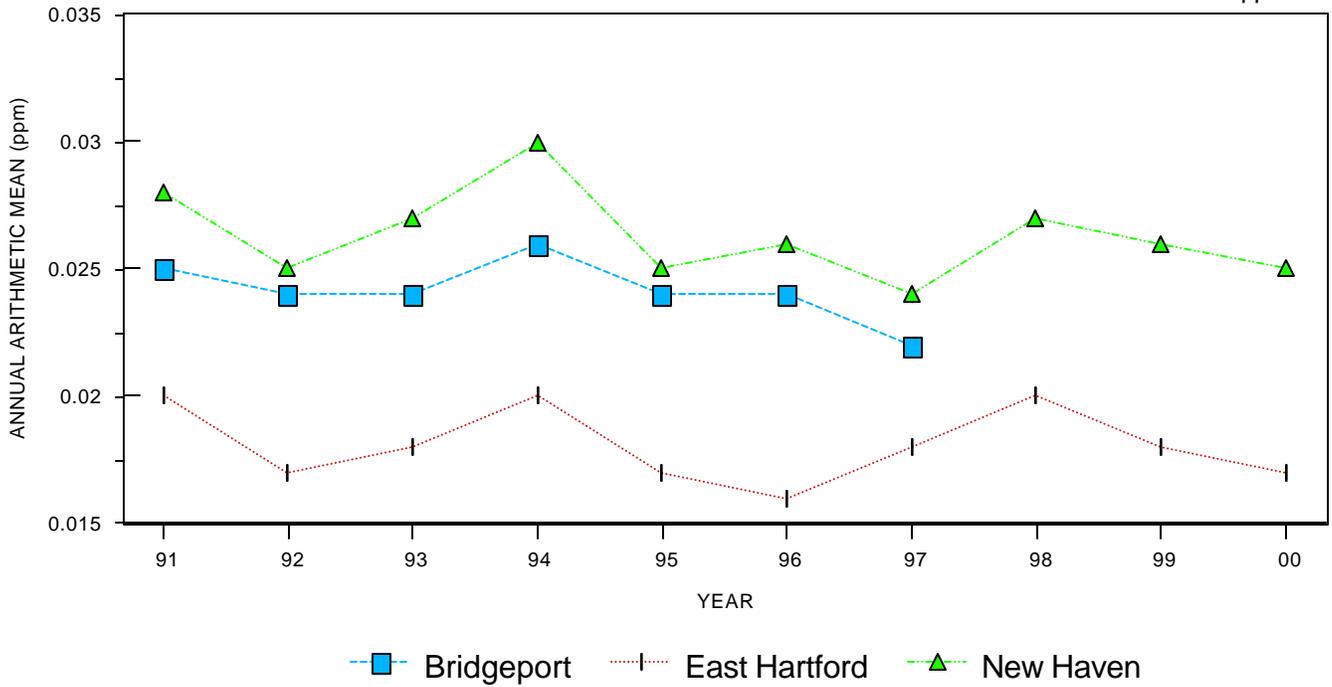


Carbon Monoxide - Connecticut

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX	1-HR	OBS>MAX	8-HR	OBS>	9 METH	
								1ST	2ND	35	1ST	2ND		
09-001-0004	1 2	BRIDGEPORT	FAIRFIELD	JASPER MCLEVY HALL, STAT	00	001	8334	4.9	4.6	0	2.6	2.4	0	54
09-001-0020	1 2	STAMFORD	FAIRFIELD	LIBRARY 96 BROAD ST STA	00	001	8497	7.6	6.0	0	3.2	3.0	0	54
09-003-0013	1 1	HARTFORD	HARTFORD	401 FLATBUSH AVENUE	00	001	8633	3.3	3.1	0	3.0	2.7	0	54
09-003-0017	1 1	HARTFORD	HARTFORD	COURTHOUSE, 155 MORGAN S	00	001	8670	18.0	15.2	0	8.5	7.3	0	54
09-009-0025	1 2	NEW HAVEN	NEW HAVEN	121 ELM STREET	00	001	8598	4.4	4.3	0	3.3	2.6	0	54

# CONNECTICUT NITROGEN DIOXIDE

NAAQS = 0.05 ppm

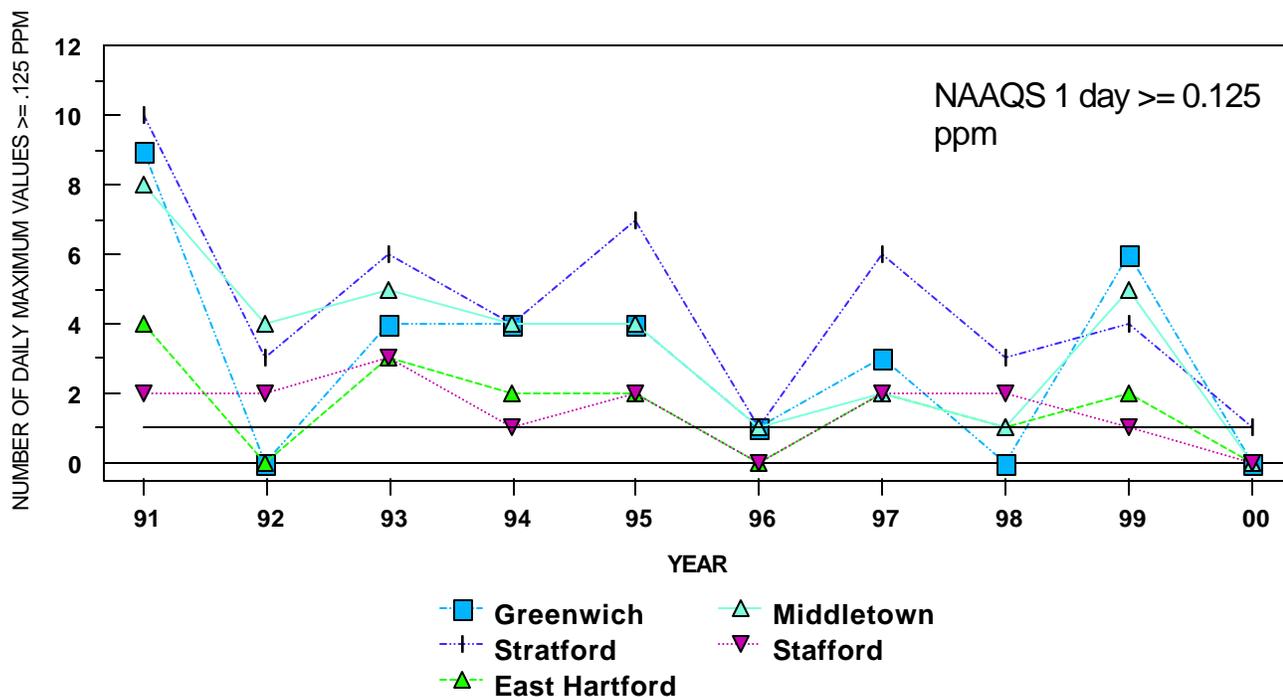


CONNECTICUT  
 NITROGEN DIOXIDE (NO2) UNITS: 007 PPM  
 P  
 O M

SITE ID	C	T	CITY	COUNTY	ADDRESS	REP YR	ORG	#OBS	MAX	1-HR	MAX	24-HR	ARIT	METH
									1ST	2ND	1ST	2ND	MEAN	
09-001-9003	1	8	WESTPORT	FAIRFIELD	SHERWOOD ISLAND STATE PARK	00	001	8515	0.10	0.09			0.018	74
09-003-1003	1	8	EAST HARTFORD	HARTFORD	MCAULIFFEE PARK	00	001	8426	0.07	0.07			0.017	74
09-009-1123	1	2	NEW HAVEN	NEW HAVEN	715 STATE STREET	00	001	8413	0.09	0.09			0.025	74
09-009-9005	1	2	HAMDEN	NEW HAVEN	MILL ROCK BASIN	00	001	4445	0.08	0.07			0.012 ?	74
09-013-1001	1	6	STAFFORD	TOLLAND	ROUTE 190, SHENIPSIT STATE	00	001	4538	0.04	0.04			0.006 ?	74

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# CONNECTICUT OZONE



CONNECTICUT  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

SITE ID	O M	C T CITY	COUNTY	ADDRESS	YR	REP	NUM	NUM	VALID DAILY 1-HR MAXIMUM				MISS DAYS			
									ORG	MEAS	REQ	1ST	2ND	3RD	4TH	MEAS
09-001-0017	1	2	GREENWICH	FAIRFIELD	00	001	182	183	0.12	0.123	0.114	0.111	0	0	1	47
09-001-1123	1	2	DANBURY	FAIRFIELD	00	001	166	183	0.13	0.124	0.106	0.105	1	1.1	0	47
09-001-3007	1	1	STRATFORD	FAIRFIELD	00	001	182	183	0.14	0.122	0.111	0.110	1	1	0	47
09-001-9003	1	7	WESTPORT	FAIRFIELD	00	001	176	183	0.14	0.116	0.114	0.110	1	1	1	47
09-003-1003	1	7	EAST HARTFORD	HARTFORD	00	001	174	183	0.12	0.101	0.100	0.096	0	0	1	47
09-005-0006	1	2	TORRINGTON	LITCHFIELD	00	001	183	183	0.12	0.113	0.108	0.100	0	0	0	47
09-007-0007	1	1	MIDDLETOWN	MIDDLESEX	00	001	156	183	0.12	0.116	0.111	0.107	0	0	1	47
09-009-3002	1	2	MADISON	NEW HAVEN	00	001	179	183	0.15	0.136	0.118	0.111	2	2	4	47
09-009-9005	1	2	HAMDEN	NEW HAVEN	00	001	151	183	0.12	0.118	0.116	0.104	0	0	2	47
09-011-0008	1	2	GROTON	NEW LONDON	00	001	181	183	0.14	0.135	0.115	0.102	2	2	0	47
09-013-1001	1	7	STAFFORD	TOLLAND	00	001	180	183	0.10	0.101	0.099	0.093	0	0	1	47

CONNECTICUT  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

AIRES Site No	State	Location	County	yr	1st Max 8-Hour	2d Max 8-Hour	3d Max 8-Hour	4th maxDays 8-Hour >0.08	
09-001-0017	CT	GREENWICH	FAIRFIELD CO	00	0.113	0.095	0.085	0.084	3
09-001-1123	CT	DANBURY	FAIRFIELD CO	00	0.097	0.096	0.092	0.090	7
09-001-3007	CT	STRATFORD	FAIRFIELD CO	00	0.124	0.094	0.091	0.090	4
09-001-9003	CT	WESTPORT	FAIRFIELD CO	00	0.120	0.089	0.085	0.084	3
09-003-1003	CT	EAST HARTFORD	HARTFORD CO	00	0.097	0.087	0.079	0.078	2
09-005-0006	CT	TORRINGTON	LITCHFIELD CO	00	0.097	0.087	0.086	0.085	4
09-007-0007	CT	MIDDLETOWN	MIDDLESEX CO	00	0.103	0.092	0.090	0.089	6
09-009-1123	CT	NEW HAVEN	NEW HAVEN CO	00					
09-009-3002	CT	MADISON	NEW HAVEN CO	00	0.121	0.104	0.093	0.087	6
09-009-9005	CT	HAMDEN	NEW HAVEN CO	00	0.104	0.088	0.083	0.081	2
09-011-0008	CT	GROTON	NEW LONDON CO	00	0.124	0.105	0.085	0.084	3
09-013-1001	CT	STAFFORD	TOLLAND CO	00	0.098	0.084	0.081	0.079	1

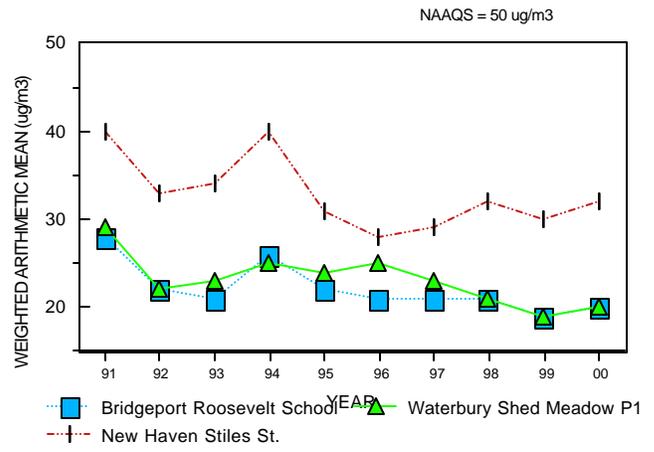
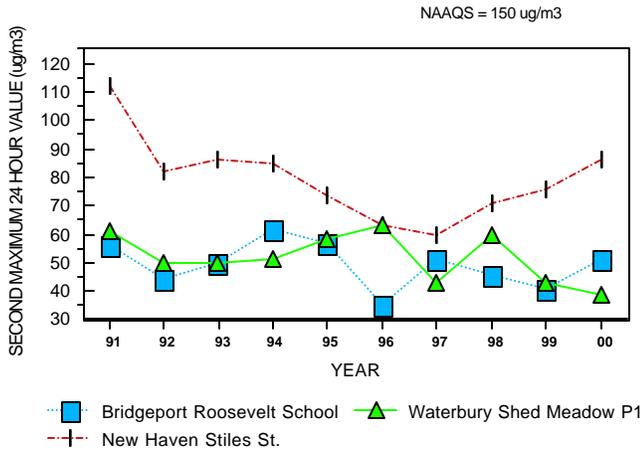
# PM 2.5 Connecticut

## PM 2.5 LOCAL CONDITIONS (88101) CONNECTICUT

SITE ID	O M C T	CITY	COUNTY	ADDRESS	REP		MAXIMUMVALUES				ARITH				
					YR	ORG	#OBS	1ST	2ND	3RD	4TH	MEAN	METH	UNITS	INT
09-001-0010	1 2	BRIDGEPORT	FAIRFIELD	ROOSEVELT SCHOOL PA	00	001	91	48.3	43.2	41.5	36.1	14.08	118	105	7
09-001-0010	2 3	BRIDGEPORT	FAIRFIELD	ROOSEVELT SCHOOL PA	00	001	55	48.9	42.8	42.2	35.0	16.28	118	105	7
09-001-0113	1 2	BRIDGEPORT	FAIRFIELD	SHED CONGRESS STREE	00	001	27	39.7	29.5	28.5	26.0	14.14 ?	118	105	7
09-001-1123	1 2	DANBURY	FAIRFIELD	TRAILER, W. CONNECT	00	001	108	46.0	36.5	32.9	31.1	12.81	118	105	7
09-001-2124	1 3	STAMFORD	FAIRFIELD	HILLANDALE AVENUE	00	001	99	51.1	43.3	36.3	33.1	13.23	118	105	7
09-001-3005	1 3	NORWALK	FAIRFIELD	NORWALK HEALTH DEPT	00	001	76	36.0	35.3	31.8	29.1	13.02 ?	118	105	7
09-001-9003	1 3	WESTPORT	FAIRFIELD	SHERWOOD ISLAND STA	00	001	50	43.6	33.4	31.1	28.6	13.49 ?	117	105	7
09-003-1003	1 2	EAST HARTFORD	HARTFORD	MCAULIFFEE PARK	00	001	283	37.7	35.7	33.1	33.0	10.48	118	105	7
09-003-1018	1 2	HARTFORD	HARTFORD	CORNER OF SHELDON S	00	001	95	39.4	31.2	29.0	24.0	11.92	118	105	7
09-009-0018	1 2	NEW HAVEN	NEW HAVEN	STILES STREET.	00	001	274	46.2	45.5	45.1	40.3	16.11	118	105	7
09-009-0018	2 3	NEW HAVEN	NEW HAVEN	STILES STREET.	00	001	52	45.9	44.8	42.2	37.6	19.32 ?	118	105	7
09-009-1123	1 2	NEW HAVEN	NEW HAVEN	715 STATE STREET	00	001	93	58.2	47.6	37.2	32.4	14.51	118	105	7
09-009-1123	2 3	NEW HAVEN	NEW HAVEN	715 STATE STREET	00	001	58	59.6	47.5	35.8	32.9	15.33	118	105	7
09-009-2123	1 2	WATERBURY	NEW HAVEN	SHED MEADOW AND BAN	00	001	94	41.6	36.1	32.7	32.3	13.51	118	105	7
09-009-2123	2 3	WATERBURY	NEW HAVEN	SHED MEADOW AND BAN	00	001	50	42.1	36.0	31.1	30.5	15.27 ?	118	105	7
09-009-9005	1 2	HAMDEN	NEW HAVEN	MILL ROCK BASIN	00	001	95	49.0	38.0	34.7	31.2	11.67	118	105	7
09-011-3002	1 2	NORWICH	NEW LONDON	22 COURT HOUSE SQUA	00	001	91	31.3	27.6	25.9	22.6	10.85	118	105	7

Please Note: in the calculation of PM2.5 summary statistics data points with data qualifiers were used.  
A list and discussion of data qualifiers for PM2.5 data is presented on Page 8.

# CONNECTICUT PM10



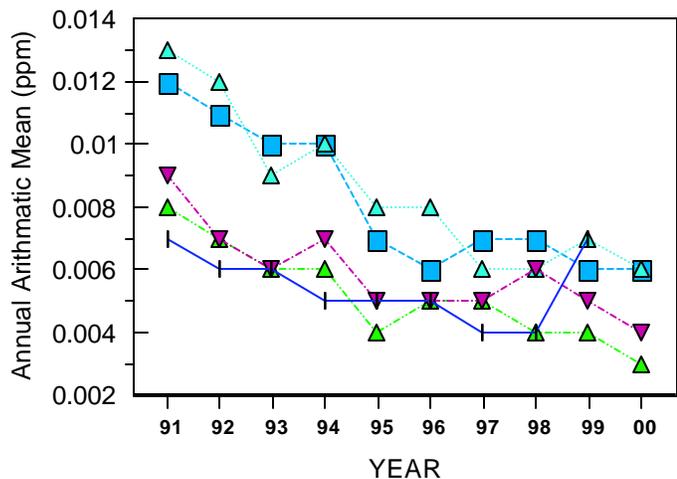
CONNECTICUT  
 PM10 TOTAL 0-10UM - 81102 UNITS-001 UG/CU METER(25 C)

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	REP YR	NUM ORG	SCHEDULED				***MAXIMUM VALUES***				WTD						
							NUM OBS	% OBS	NUM REQ	1ST	2ND	3RD	4TH	VALS > 150 MEAS	ARITH EST	METH					
09-001-0010	1	1	BRIDGEPORT	FAIRFIELD	ROOSEVELT SCHOOL PARK	00	001	59	59	63	64	60	51	45	42	0	0	20	?	62	
09-001-1401	1	1	DARIEN	FAIRFIELD	I-95 AT BROOKSIDE DRI	00	001	61	61	65	64	67	67	49	41	0	0	25	?	62	
09-001-2014	1	1	NORWALK	FAIRFIELD	I-95 AT WEST AVE	00	001	55	55	59	64	97	55	53	51	0	0	31	?	62	
09-001-9003	1	3	WESTPORT	FAIRFIELD	SHERWOOD ISLAND STATE	00	001	61	61	65	64	46	39	34	33	0	0	16	?	62	
09-003-0013	1	1	HARTFORD	HARTFORD	401 FLATBUSH AVENUE	00	001	58	58	62	64	41	39	32	29	0	0	17	?	62	
09-003-2001	1	2	BURLINGTON	HARTFORD	PUNCH BROOK ROAD AT F	00	001	58	58	62	64	27	24	24	22	0	0	11	?	62	
09-003-2006	1	1	EAST HARTF	HARTFORD	85 HIGH STREET EAST H	00	001	52	52	55	64	56	29	26	26	0	0	16	?	62	
09-003-2006	9	3	EAST HARTF	HARTFORD	85 HIGH STREET EAST H	00	001	55	55	59	64	58	34	30	30	0	0	18	?	62	
09-005-6001	1	2	TORRINGTON	LITCHFIELD	140 MAIN STREET	00	001	61	61	65	64	40	31	31	27	0	0	15	?	62	
09-009-0018	1	1	NEW HAVEN	NEW HAVEN	STILES STREET.	00	001	59	59	48	64	70	53	52	48	0	0	28	?	62	
09-009-0018	3	3	NEW HAVEN	NEW HAVEN	STILES STREET.	00	001	348	2	89	94	366	91	86	78	71	0	0	32	?	79
09-009-0018	4	3	NEW HAVEN	NEW HAVEN	STILES STREET.	00	001	348	3	48	95	366	91	86	78	71	0	0	32	?	79
09-009-1123	1	1	NEW HAVEN	NEW HAVEN	715 STATE STREET	00	001	57	57	61	64	73	59	41	38	0	0	21	?	62	
09-009-1123	2	2	NEW HAVEN	NEW HAVEN	715 STATE STREET	00	001	57	57	61	64	69	56	40	38	0	0	20	?	62	
09-009-2123	1	1	WATERBURY	NEW HAVEN	SHED MEADOW AND BANK	00	001	57	57	61	64	65	39	37	31	0	0	20	?	62	
09-009-2123	2	3	WATERBURY	NEW HAVEN	SHED MEADOW AND BANK	00	001	57	57	61	64	57	41	37	33	0	0	21	?	62	
09-011-0009	1	1	NEW LONDON	NEW LONDON	PERKINS ST TURN-AROUN	00	001	61	61	65	64	43	40	29	29	0	0	16	?	62	
09-011-3002	1	2	NORWICH	NEW LONDON	22 COURT HOUSE SQUARE	00	001	57	57	61	64	42	40	32	32	0	0	16	?	62	

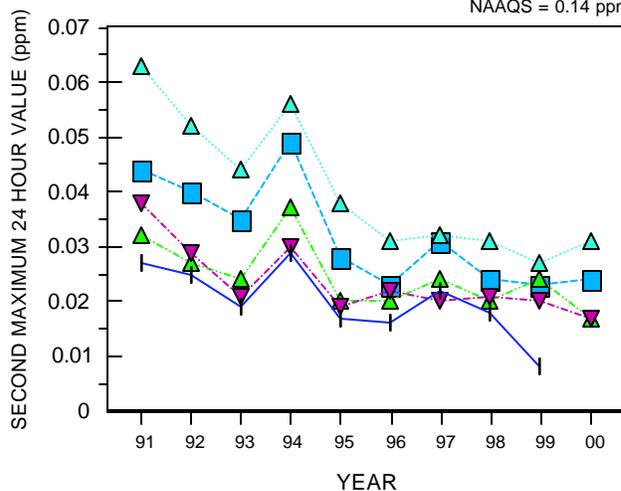
? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# CONNECTICUT SULFUR DIOXIDE

NAAQS = 0.03 ppm



NAAQS = 0.14 ppm



■ Bridgeport    ▲ New Haven    + Groton  
▲ Danbury    ▼ Waterbury

■ Bridgeport    ▲ New Haven    + Groton  
▲ Danbury    ▼ Waterbury

CONNECTICUT  
SULFUR DIOXIDE 42401 UNITS:007 PPM

SITE ID	O C	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	OBS >			OBS >			ARIT MEAN	METH		
									MAX 24-HR 1ST	2ND	STD	MAX 3-HR 1ST	2ND	STD			MAX 1-HR 1ST	2ND
09-001-0012	1	1	BRIDGEPORT	FAIRFIELD	115 BOSTON TERRAC	00	001	8219	0.026	0.024	0	0.039	0.036	0	0.048	0.047	0.006	60
09-001-1123	1	2	DANBURY	FAIRFIELD	TRAILER, W. CONNE	00	001	8165	0.018	0.017	0	0.032	0.031	0	0.036	0.035	0.003	60
09-001-2124	1	2	STAMFORD	FAIRFIELD	HILLANDALE AVENUE	00	001	8346	0.026	0.026	0	0.044	0.040	0	0.046	0.046	0.005	60
09-001-9003	1	3	WESTPORT	FAIRFIELD	SHERWOOD ISLAND S	00	001	8157	0.023	0.022	0	0.041	0.039	0	0.047	0.044	0.004	60
09-003-2006	1	1	EAST HARTFORD	HARTFORD	85 HIGH STREET EA	00	001	8256	0.023	0.021	0	0.041	0.033	0	0.043	0.041	0.004	60
09-009-1123	2	1	NEW HAVEN	NEW HAVEN	715 STATE STREET	00	001	8113	0.033	0.031	0	0.058	0.054	0	0.073	0.069	0.006	60
09-009-2123	1	2	WATERBURY	NEW HAVEN	SHED MEADOW AND B	00	001	8181	0.017	0.017	0	0.034	0.029	0	0.041	0.036	0.004	60

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

## MAINE SUMMARY

In 2000, Maine did not operate any carbon monoxide (CO) monitors. Lead (Pb) monitoring was discontinued several years ago due to the extremely low lead concentrations that were reported. In 2000, two photochemical assessment monitoring stations (PAMS) monitored nitrogen dioxide (NO<sub>2</sub>) during the summer. The Kittery PAMS operated throughout the year. None of these sites measured any exceedances or violations of the NO<sub>2</sub> NAAQS during 2000. The highest NO<sub>2</sub> annual arithmetic mean measured was at Kittery. The annual mean was about 2% of the NAAQS.

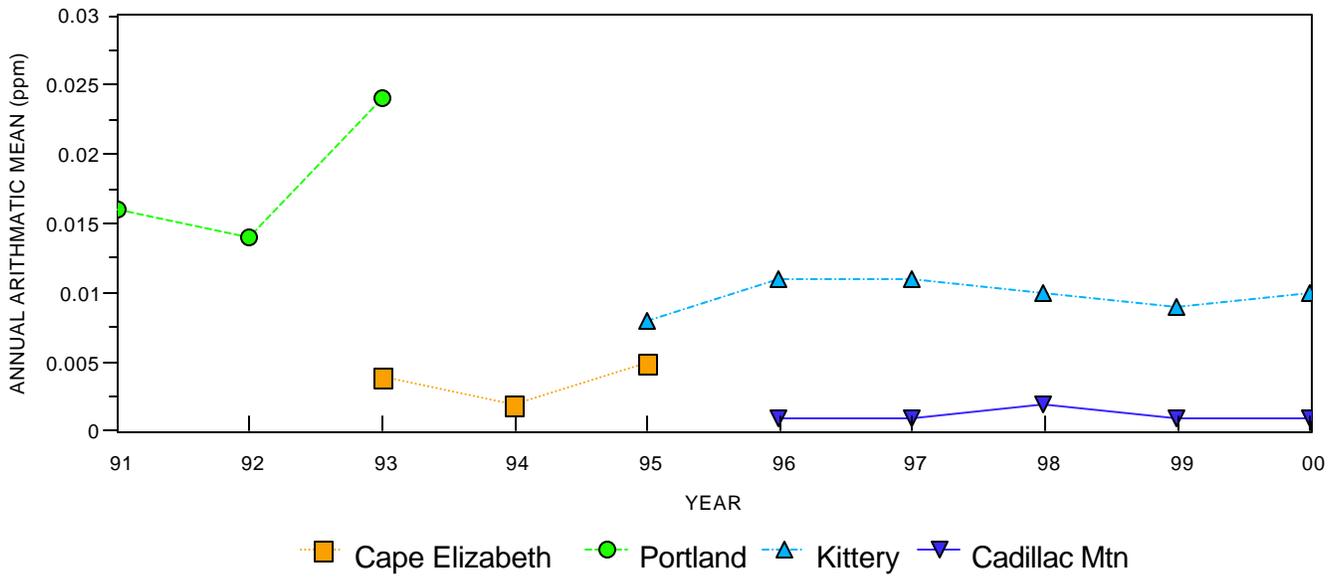
None of the Maine twelve ozone (O<sub>3</sub>) sites reported any exceedances of the 1-hour O<sub>3</sub> NAAQS in 2000. In 1999 three of the twelve ozone sites reported exceedance of the 1-hour ozone NAAQS. No sites reporting ozone levels above the 1-hour NAAQS in 1996 and seven sites reported at least one day above this NAAQS in 1997. In 1998 five sites reported one or more days over the 1-hour NAAQS. The Cadillac Mountain site in Acadia National Park reported the highest 1-hour second maximum ozone concentration of 0.098 ppm. For the 8-hour ozone standard in 2000, none of the twelve O<sub>3</sub> sites reported a fourth high day of at least 85 ppb. This is down from five sites in 1999. In 2000 the Cadillac site reported the maximum 8-hour average of 0.097 ppm. In 1999 the site in Kittery reported the maximum 8-hour concentration of 0.112 ppm. For 1998 two sites near Portland reported the state's maximum 8-hour average of 0.116 ppm. In 1997, the site in Phippsburg reported a maximum daily 8-hour value of 0.116 ppm ozone

In 2000 no site in Maine reported 24-hour particulate matter concentrations above the (PM<sub>10</sub>) NAAQS. The Portland Tukey's Bridge site reported a PM<sub>10</sub> concentration of 140 ug/m<sup>3</sup> or 93% of the NAAQS, which was the maximum daily concentration in Maine. There were no exceedances or violations of the annual standard in 2000. The Tukey's Bridge site also reported the maximum annual arithmetic mean of 27 ug/m<sup>3</sup> or 54% of the standard. The ten-year trend lines continue to show a slight downward trend. For PM<sub>2.5</sub> Maine established a network of 15 stations which began operation in 1999. In general the Portland area reported the highest PM<sub>2.5</sub> concentrations.

There were no exceedances or violations reported at any of the three sulfur dioxide (SO<sub>2</sub>) sites in 2000. The highest annual arithmetic mean was reported at the Portland Shelter site at 5 ppb or 17% of the NAAQS. The Lewiston site reported the highest 24-hour second maximum at 18 ppb or 13% of the standard. The highest 3-hour second maximum of 54 ppb or 11% of the standard was also recorded in Portland. The ten-year graphs show that SO<sub>2</sub> concentrations are well below the NAAQS with small year to year changes.

# MAINE NITROGEN DIOXIDE

NAAQS 0.05 ppm



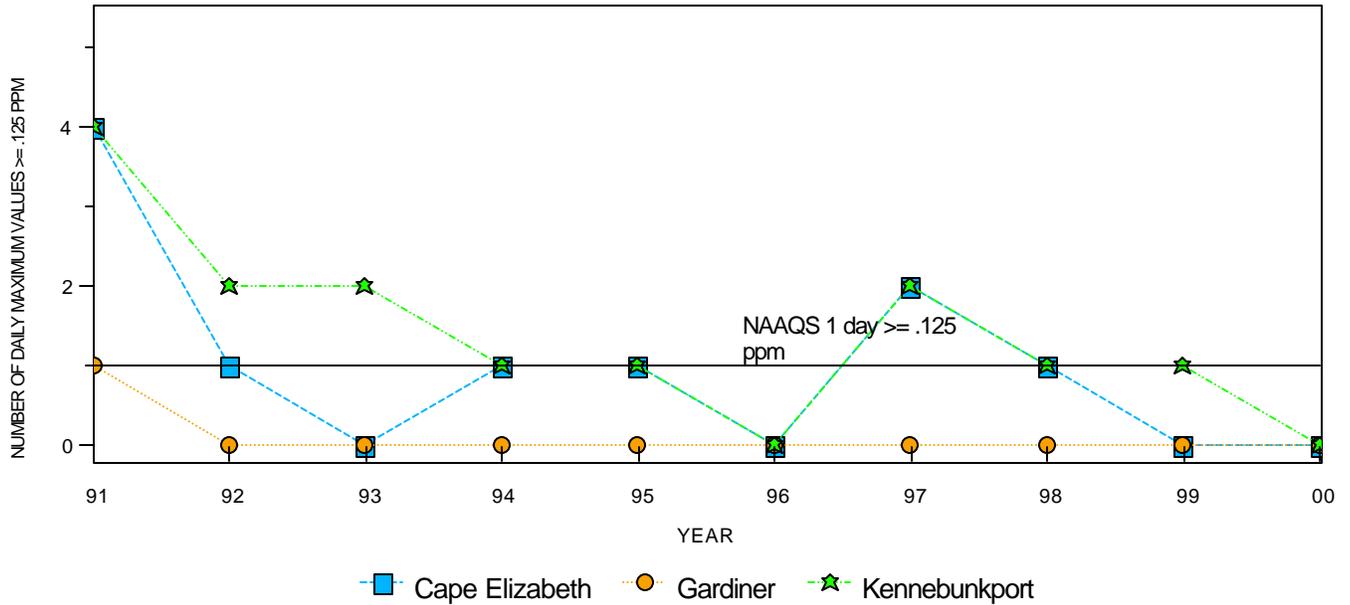
MAINE

NITROGEN DIOXIDE (NO2) UNITS: 007 PPM

SITE ID	C	T	CITY	COUNTY	ADDRESS	REP YR	ORG #	OBS	MAX	1-HR	MAX	24-HR	ARIT	METH
									1ST	2ND	1ST	2ND	MEAN	
23-009-0102	1	6	BAR HARBOR	HANCOCK	TOP OF CADILLAC MOUNTAIN	00	001	3510	0.01	0.01			0.001 ?	75
23-031-3002	1	6	KITTERY	YORK	FRISBEE SCHOOL, GOODSOE RO	00	019	8518	0.066	0.065			0.01	14

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# MAINE OZONE



MAINE  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

SITE ID	O M	C T CITY	COUNTY	ADDRESS	REP YR	NUM ORG	NUM MEAS	NUM REQ	VALID DAILY 1-HR MAXIMUM *****MAXIMA*****				VALS>0.125		MISS DAYS ASSUMED <		
									1ST	2ND	3RD	4TH	MEAS	EST	STANDARD	METH	
23-005-2003	1	8	CAPE ELIZABET	CUMBERLAND	TWO LIGHTS STATE	00	001	182	183	0.09	0.077	0.076	0.076	0	0	1	47
23-009-0001	1	3	BAR HARBOR	HANCOCK	SEAWALL-RANGER G	00	001	141	183	0.09	0.079	0.076	0.074	0	0	4	19
23-009-0102	1	6	BAR HARBOR	HANCOCK	TOP OF CADILLAC	00	001	179	183	0.11	0.098	0.096	0.089	0	0	0	47
23-009-0103	1	2	BAR HARBOR	HANCOCK	MCFARLAND HILL-D	00	001	183	183	0.09	0.080	0.080	0.080	0	0	0	47
23-011-2005	1	2	GARDINER	KENNEBEC	PRAY STREET SCHO	00	001	183	183	0.09	0.081	0.076	0.075	0	0	0	47
23-013-0004	2	2	NOT IN A CITY	KNOX	PORT CLYDE, MARS	00	001	180	183	0.09	0.092	0.086	0.086	0	0	0	47
23-017-3001	1	3	NOT IN A CITY	OXFORD	ROUTE 5, NORTH L	00	001	182	183	0.07	0.062	0.062	0.061	0	0	1	47
23-019-4008	1	2	NOT IN A CITY	PENOBSCOT	SUMMIT OF RIDER	00	001	135	183	0.09	0.077	0.071	0.070	0	0	1	47
23-021-0003	1	3	DOVER-FOXCROF	PISCATAQUIS	DOVER-ANDREWS PR	00	001	171	183	0.08	0.068	0.066	0.064	0	0	2	47
23-023-0003	1	2	NOT IN A CITY	SAGADAHOC	NAVY ROAD	00	001	182	183	0.10	0.093	0.091	0.086	0	0	1	47
23-031-0038	1	3	NOT IN A CITY	YORK	PLAINS ROAD, HOL	00	001	178	183	0.09	0.083	0.077	0.075	0	0	5	47
23-031-2002	1	2	NOT IN A CITY	YORK	OCEAN AVE/PARSON	00	001	179	183	0.10	0.087	0.087	0.083	0	0	0	47
23-031-3002	1	6	KITTERY	YORK	FRISBEE SCHOOL,	00	019	172	183	0.10	0.089	0.080	0.078	0	0	2	0

MAINE  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

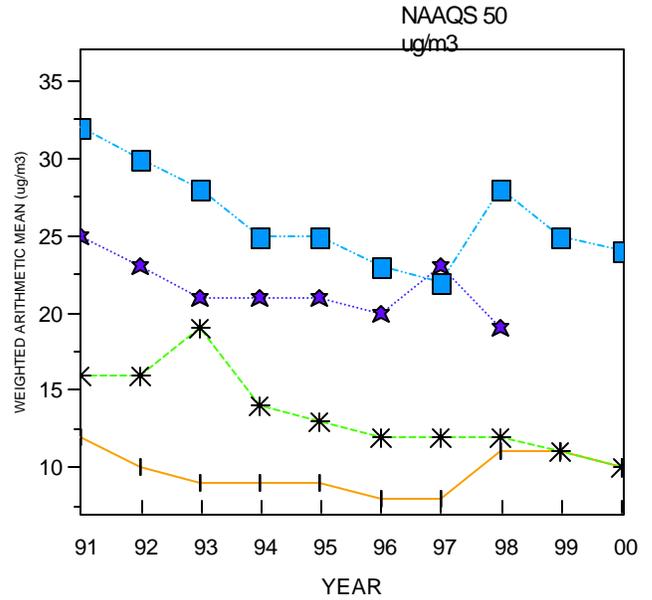
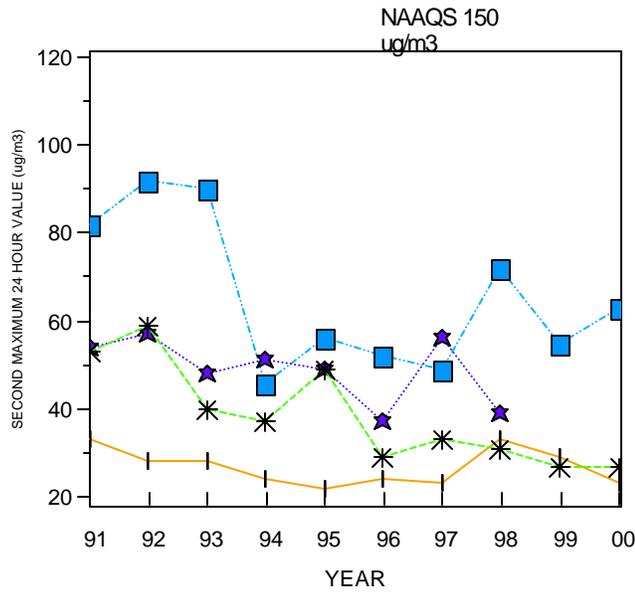
AIRS Site No	State	Location	County	yr	1st Max	2d Max	3d Max	4th max	Days
					8-Hour	8-Hour	8-Hour	8-Hour	>0.08
23-005-2003	ME	CAPE ELIZABETH	CUMBERLAND CO	00	0.080	0.069	0.068	0.067	0
23-009-0001	ME	BAR HARBOR	HANCOCK CO	00	0.073	0.073	0.063	0.062	0
23-009-0102	ME	BAR HARBOR	HANCOCK CO	00	0.097	0.088	0.086	0.078	3
23-009-0103	ME	BAR HARBOR	HANCOCK CO	00	0.073	0.073	0.070	0.070	0
23-011-2005	ME	GARDINER	KENNEBEC CO	00	0.075	0.069	0.068	0.063	0
23-013-0004	ME	NOT IN A CITY	KNOX CO	00	0.084	0.081	0.072	0.070	0
23-017-3001	ME	NOT IN A CITY	OXFORD CO	00	0.065	0.058	0.057	0.054	0
23-019-4008	ME	NOT IN A CITY	PENOBSCOT CO	00	0.072	0.071	0.065	0.061	0
23-021-0003	ME	DOVER-FOXCROFT	PISCATAQUIS CO	00	0.068	0.064	0.061	0.060	0
23-023-0003	ME	NOT IN A CITY	SAGADAHOC CO	00	0.087	0.082	0.078	0.075	1
23-031-0038	ME	NOT IN A CITY	YORK CO	00	0.075	0.069	0.067	0.066	0
23-031-2002	ME	NOT IN A CITY	YORK CO	00	0.089	0.076	0.074	0.073	1
23-031-3002	ME	KITTERY	YORK CO	00	0.082	0.073	0.071	0.070	0

# PM 2.5 Maine

## PM2.5 LOCAL CONDITIONS (88101) MAINE

SITE	C	T	CITY	COUNTY	ADDRESS	REP		MAXIMUMVALUES				ARITH		MET#	UNITS	INT
						YR	ORG	#OBS	1ST	2ND	3RD	4TH	MEAN			
23-001-0011	1	3	LEWISTON	ANDROSCOGGIN	COUNTRY KITCHEN LOT	00	001	107	36.5	26.8	25.8	22.1	9.65	118	105	7
23-001-0011	3	3	LEWISTON	ANDROSCOGGIN	COUNTRY KITCHEN LOT	00	001	8051	144.7	127.6	79.9	69.7	8.82	701	105	1
23-003-0013	1	2	MADAWASKA	AROOSTOOK	BIG DADDY'S RESTAUR	00	001	122	31.7	28.7	23.7	23.1	10.56	118	105	7
23-003-1011	1	2	PRESQUE ISLE	AROOSTOOK	RIVERSIDE STREET PR	00	001	118	22.5	20.2	19.1	18.6	7.56	118	105	7
23-005-0015	1	3	PORTLAND	CUMBERLAND	TUKEY'S BRIDGE-BEAN	00	001	57	41.4	35.0	31.3	21.2	11.18	117	105	7
23-005-0027	1	2	PORTLAND	CUMBERLAND	26 MARGINAL WAY, PO	00	001	108	39.3	33.6	33.1	21.8	10.78	118	105	7
23-005-0027	3	2	PORTLAND	CUMBERLAND	26 MARGINAL WAY, PO	00	001	7899	105.0	61.2	58.2	57.7	10.42	701	105	1
23-005-0028	1	3	WESTBROOK	CUMBERLAND	MECHANIC'S STREET,	00	001	53	28.3	20.7	19.2	15.3	9.28	117	105	7
23-005-2003	1	3	CAPE ELIZABETH	CUMBERLAND	TWO LIGHTS STATE PA	00	001	83	21.1	21.1	20.8	20.3	8.33	118	105	7
23-009-0103	1	2	BAR HARBOR	HANCOCK	MCFARLAND HILL-DISP	00	001	82	18.7	13.5	13.3	13.0	5.90	118	105	7
23-011-0016	1	3	AUGUSTA	KENNEBEC	LINCOLN STREET ELEM	00	001	58	31.4	30.6	24.7	19.4	9.52	117	105	7
23-011-2002	1	3	WATERVILLE	KENNEBEC	COREY'S MUSIC-99 MA	00	001	55	36.9	27.2	25.6	22.9	10.44 ?	117	105	7
23-013-2001	1	3	THOMASTON	KNOX	MITCHELL PROP.-2 DE	00	001	42	17.7	15.5	14.4	11.8	6.06 ?	117	105	7
23-017-2011	1	3	RUMFORD	OXFORD	RUMFORD AVENUE AREA	00	001	52	28.8	24.6	22.9	20.1	10.35 ?	0	105	7
23-019-0002	1	2	BANGOR	PENOBSCOT	PUMP STATION-WASHIN	00	001	113	23.2	22.9	22.8	21.2	9.03	118	105	7
23-019-0002	3	2	BANGOR	PENOBSCOT	PUMP STATION-WASHIN	00	001	7916	50.8	48.9	46.4	45.2	6.07	701	105	1
23-019-4003	1	3	OLD TOWN	PENOBSCOT	MARSH ISLAND APTS-S	00	001	56	24.7	23.7	22.1	20.7	8.49	117	105	7
23-031-0008	1	3	SACO	YORK	68 FRONT STREET, SA	00	001	58	25.8	23.9	22.2	20.5	9.42	117	105	7

# MAINE PM10



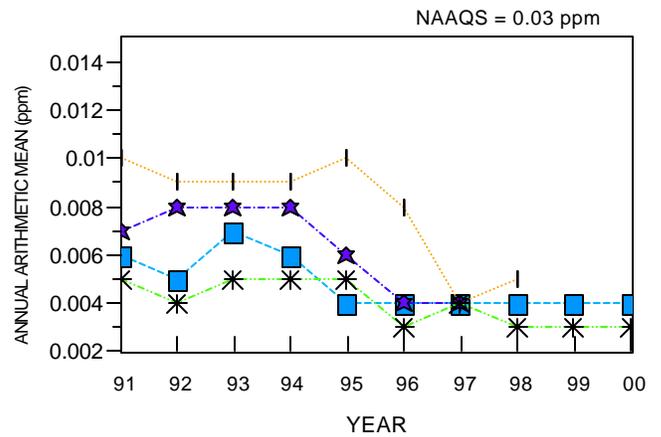
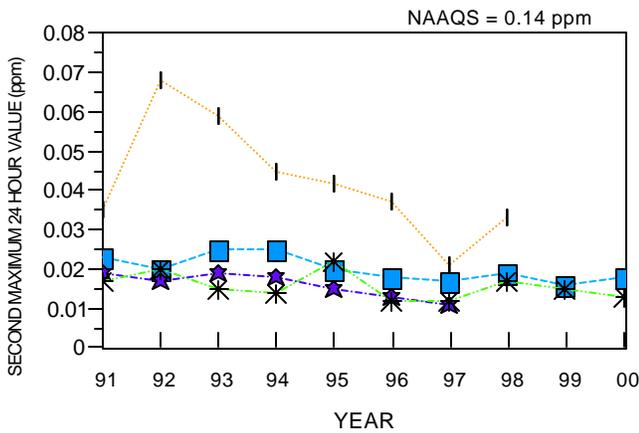
■ Madawaska   
 ★ Portland Oxford St.   
 ✱ Jay Bomaster Prop.   
 + Bridgton

■ Madawaska   
 ★ Portland Oxford St.   
 ✱ Jay Bomaster Prop.   
 + Bridgton

MAINE  
PM10 TOTAL 0-10UM - 81102 UNITS-001 UG/CU METER(25 C)

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	SCHEDULED										WTD					
					REP	NUM	NUM	%	NUM	***MAXIMUM VALUES***				VALS > 150		ARITH	METH			
					YR	ORG	OBS	OBS	OBS	REQ	1ST	2ND	3RD	4TH	MEAS	EST	MEAN			
23-001-0011	1 2	LEWISTON	ANDROSCOGG	COUNTRY KITCHEN LOT-C	00	001	51	51	80	64	47	36	34	32	0	0	18	?	64	
23-003-0013	2 2	MADAWASKA	AROOSTOOK	BIG DADDY'S RESTAURAN	00	001	62	61	95	64	104	63	56	46	0	0	24	?	64	
23-003-1008	1 3	PRESQUE IS	AROOSTOOK	PI REG OFF 58 CENTRAL	00	001	61	61	95	64	28	25	25	24	0	0	12	?	63	
23-003-1011	2 2	PRESQUE IS	AROOSTOOK	RIVERSIDE STREET PRES	00	001	352	3	52	96	366	93	87	78	76	0	0	18	?	79
23-003-1012	1 3	LORING AFB	AROOSTOOK	BUILDING 5100 LORING	00	001	61	61	95	366	28	22	22	17	0	0	9	?	64	
23-003-1014	1 3		AROOSTOOK	MAIN STREET MARS HILL	00	001	53	51	80	64	85	48	39	38	0	0	23	?	64	
23-003-1016	1 3		AROOSTOOK	MAIN STREET (ROUTE 11	00	001	58	58	91	64	66	50	46	42	0	0	22	?	63	
23-003-1017	1 3	HOULTON	AROOSTOOK	HOULTON PIONEER TIMES	00	001	61	61	95	64	133	70	66	60	0	0	23	?	64	
23-005-0002	2 3	BRIDGTON	CUMBERLAND	UPPER RIDGE ROAD, ROU	00	001	55	55	86	64	25	23	22	20	0	0	10	?	62	
23-005-0015	1 1	PORTLAND	CUMBERLAND	TUKEY'S BRIDGE-BEAN P	00	001	60	60	94	64	140	74	64	60	0	0	27	?	64	
23-005-0027	1 1	PORTLAND	CUMBERLAND	26 MARGINAL WAY, PORT	00	001	58	58	91	64	136	69	56	55	0	0	25	?	62	
23-007-0003	1 4	JAY	FRANKLIN	JEWELL PROPERTY-CRASH	00	103	61	61	49	124	30	29	28	22	0	0	12	?	63	
23-007-0004	3 2	JAY	FRANKLIN	BOMASTER PROPERTY-JAY	00	103	61	61	49	124	29	27	26	20	0	0	10	?	62	
23-011-0014	1 2	AUGUSTA	KENNEBEC	RINES HILL PARKING LO	00	001	39	39	81	48	90	64	46	46	0	0	22	?	64	
23-011-0016	1 2	AUGUSTA	KENNEBEC	LINCOLN STREET ELEMEN	00	001	20	20	91	22	24	21	19	16	0	0	12	?	64	
23-013-2001	1 2	THOMASTON	KNOX	MITCHELL PROP.-2 DEXT	00	106	63	63	51	124	35	32	30	26	0	0	12	?	63	
23-017-0008	1 2	MEXICO	OXFORD	LABONVILLE'S-ROUTE#2	00	104	140	1	40	76	184	33	31	28	26	0	0	14	?	62
23-017-2007	1 2	RUMFORD	OXFORD	VILLAGE GREEN-ROUTE#1	00	104	151	1	51	82	64	25	25	24	24	0	0	10	?	62
23-019-0002	2 2	BANGOR	PENOBSCOT	PUMP STATION-WASHINGT	00	001	55	53	83	64	42	37	36	34	0	0	17	?	62	

# MAINE SULFUR DIOXIDE



- Lewiston Country Kitchen
- ◆ Madawaska US Post Office
- ★ Mexico
- \* Rumford

- Lewiston Country Kitchen
- ◆ Madawaska US Post Office
- ★ Mexico
- \* Rumford

MAINE  
SULFUR DIOXIDE 42401 UNITS:007 PPM

SITE ID	P O M C T CITY	COUNTY	ADDRESS	REP YR ORG #OBS	MAX 24-HR		OBS > STD		MAX 3-HR		OBS > STD		MAX 1-HR		ARIT	
					1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND	MEAN	METH		
23-001-0011	1 1 LEWISTON	ANDROSCOGGIN	COUNTRY KITCHEN L	00 001 7776	0.020	0.018	0	0.044	0.043	0	0.121	0.114	0.004	60		
23-005-0027	1 1 PORTLAND	CUMBERLAND	26 MARGINAL WAY,	00 001 8699	0.024	0.018	0	0.059	0.054	0	0.065	0.065	0.005	60		
23-017-2007	2 2 RUMFORD	OXFORD	VILLAGE GREEN-ROU	00 104 8237	0.014	0.013	0	0.023	0.022	0	0.028	0.027	0.003	9		

## MASSACHUSETTS SUMMARY

Massachusetts maintains nine carbon monoxide (CO) monitoring sites. Four sites are located in Boston (Kenmore Square, Visconti Street-East Boston, Breman Street-East Boston, and the Federal Post Office Building). Two sites are in Springfield (East Columbus Avenue and Liberty Street) and in Worcester (Central Street and Franklin Street), and a single site is in Lowell (Old City Hall). No exceedances or violations of the one-hour or 8-hour NAAQS for CO were recorded at any of the Massachusetts CO monitoring sites in 2000, 1999, 1998 or 1997. In 1996 there were two exceedances of the 8-hour NAAQS 9.5 ppm at the Lowell site and 10.5 ppm at the Springfield East Columbus Avenue site. Overall, the maximum one-hour and 8-hour concentrations of CO were slightly higher in 1999 when compared with 2000, 1998 and 1997. This variability in CO concentrations is evident from the ten year data records (1991 - 2000) and is due in part to changes in meteorology and emission source characteristics. The data, show a small general decrease in the concentration of CO over this period.

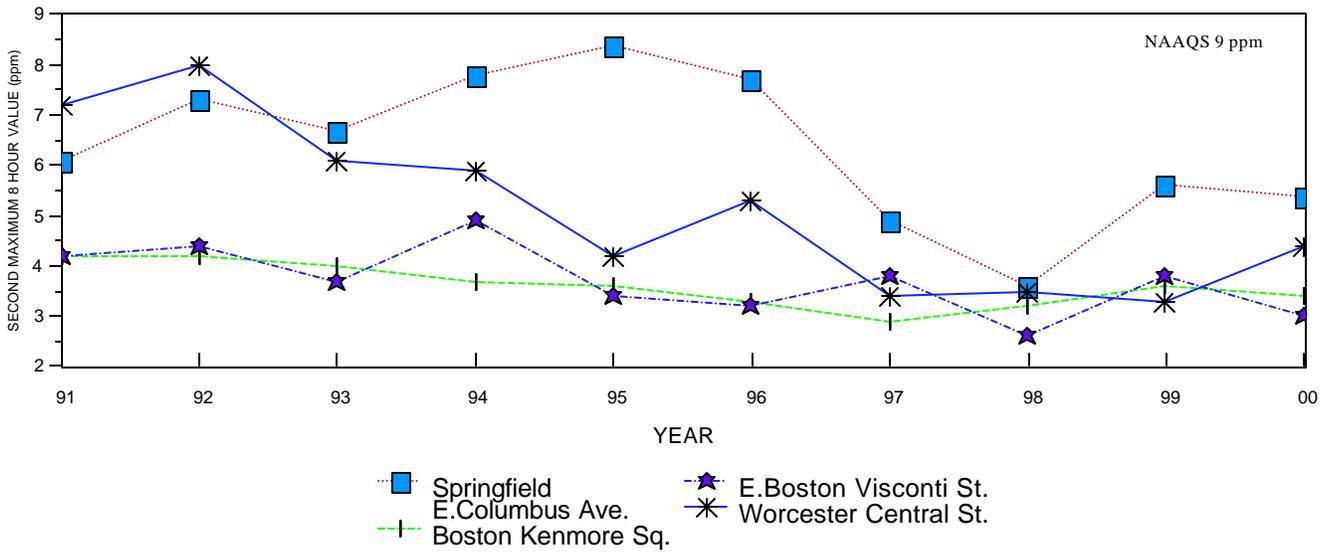
In 1996 Massachusetts discontinued lead (Pb) monitoring at all but one monitoring site in Boston, because air quality levels were well below the NAAQS and at the lowest levels of detection. The maximum 2000 quarterly average at the Kenmore Square site in Boston was 0.02 ug/m<sup>3</sup> or 1.4% of the NAAQS. Nitrogen dioxide (NO<sub>2</sub>) measurements were made at fourteen monitoring sites throughout the Commonwealth. The highest annual average concentrations were recorded in the Metropolitan Boston area, Worcester, and Springfield. The lowest concentrations were recorded at some of the rural sites, Quabbin Summit and Newbury. The Kenmore Square monitor recorded the highest 2000 average annual NO<sub>2</sub> concentrations of 0.029 ppm. The rural sites recorded average annual concentrations of 0.006 ppm. Yearly variability for the Massachusetts average annual NO<sub>2</sub> data is small and no upward or downward trend is evident for the sites over the past ten years.

Fifteen ozone monitoring sites were operated and maintained during the 2000 summer ozone season. One monitoring site recorded concentrations above the 1-hour NAAQS for ozone. Ozone concentrations recorded during 2000 and 1998 were generally lower than those recorded in 1999 and 1997. Part of this difference may be due to the drier and hotter summer of 1999 and 1997 than the cooler and wetter summers of 2000 and 1998. The highest 1-hour ozone concentration was recorded at the Truro (0.141 ppm) monitoring sites. For the 8-hour ozone standard in 2000, none of the fifteen O<sub>3</sub> sites reported a fourth high day of at least 85 ppb. The maximum 8-hour average in 2000 was in Truro at 0.126 ppm. Over the most recent five years, the maximum concentration of ozone and the frequency of concentration in excess of the ozone NAAQS have fluctuated due to changes in the emissions of ozone precursors and with changes in meteorology.

There are eight particulate matter (PM<sub>10</sub>) monitoring sites in Massachusetts. With the exception of the Quabbin Summit site, all of the sites are located within urban areas of the Commonwealth. The highest annual average concentrations of PM<sub>10</sub> were recorded in Springfield (28 ug/m<sup>3</sup>), Boston-City Square (29 ug/m<sup>3</sup>), and Boston-Kenmore Sq. (25 ug/m<sup>3</sup>). The highest 24-hour PM<sub>10</sub> concentration was recorded at Worcester (80 ug/m<sup>3</sup>). In contrast the lowest average annual concentration was recorded at the Quabbin Summit (11 ug/m<sup>3</sup>). Over the past ten years the concentrations of PM<sub>10</sub> at the urban sites have shown considerable variability. For PM<sub>2.5</sub> Massachusetts established a network of 21 stations which began operation in 1999. In general the Boston and Springfield areas reported the highest PM<sub>2.5</sub> concentrations.

Twelve sulfur dioxide (SO<sub>2</sub>) monitoring sites were operated in Massachusetts during 2000. No exceedance or violation of the annual or 24-hour (primary) or the 3-hour (secondary) NAAQS for SO<sub>2</sub> was recorded. The highest short-term (3-hour) SO<sub>2</sub> concentrations were recorded at the Stoneham monitoring site (117 ppb). The Fall River site recorded the maximum and second maximum 24-hour concentrations of 55 and 42 ppb. The lowest annual average SO<sub>2</sub> concentrations was recorded at Quabbin Summit (2 ppb). The highest annual SO<sub>2</sub> concentration was recorded in Stoneham (14 ppb). All SO<sub>2</sub> monitoring sites in Massachusetts showed a general decline in SO<sub>2</sub> levels over the past ten years.

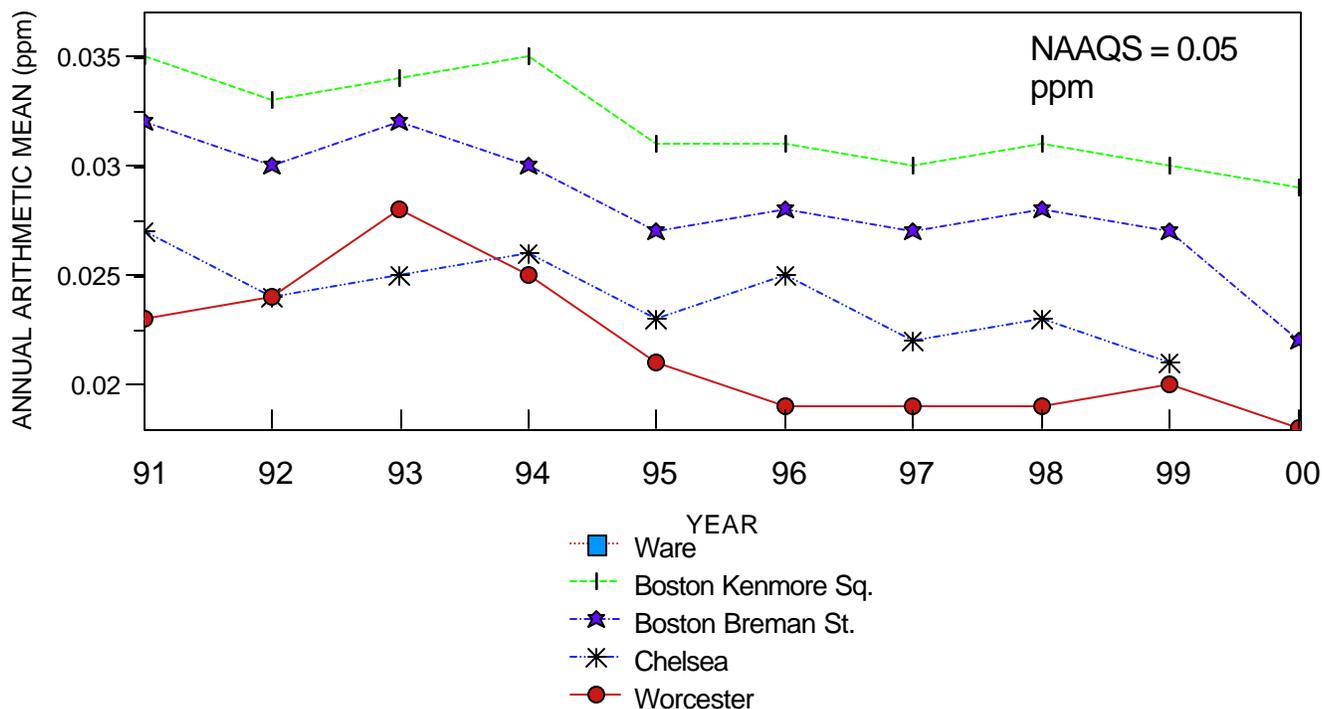
## MASSACHUSETTS CARBON MONOXIDE



### Carbon Monoxide - Massachusetts

SITE ID	P		CITY	COUNTY	ADDRESS	REP YR	MAX 1ST	1-HR 2ND	OBSMAX 35		8-HR 1ST 2ND		OBS> 9 METH	
	O	M							1ST	2ND				
25-013-0016	1	1	SPRINGFIELD	HAMPDEN	LIBERTY STREET PARKING L	00 001	8219	5.1	5.1	0	4.4	4.0	0	67
25-013-2007	1	1	SPRINGFIELD	HAMPDEN	EAST COLUMBUS AVENUE	00 001	8207	6.5	5.4	0	4.0	3.6	0	93
25-017-0007	1	2	LOWELL	MIDDLESEX	OLD CITY HALL, MERRIMACK	00 001	8230	6.0	5.3	0	3.5	3.2	0	93
25-025-0002	1	2	BOSTON	SUFFOLK	KENMORE SQUARE, 590 COMM	00 001	7589	3.6	3.4	0	3.0	2.3	0	0
25-025-0021	1	1	BOSTON	SUFFOLK	340 BREMAN STREET, EAST	00 001	8109	3.5	3.0	0	2.4	2.4	0	67
25-025-0038	1	1	BOSTON	SUFFOLK	FEDERAL POST OFF BLDG, M	00 001	7863	3.0	2.9	0	2.2	2.1	0	67
25-027-0020	1	2	WORCESTER	WORCESTER	CENTRAL STREET FIRE STAT	00 001	8029	4.8	4.4	0	2.8	2.6	0	0
25-027-0022	1	2	WORCESTER	WORCESTER	FRANKLIN STREET PARKING	00 001	8028	9.5	9.0	0	6.1	3.3	0	0

# MASSACHUSETTS NITROGEN DIOXIDE

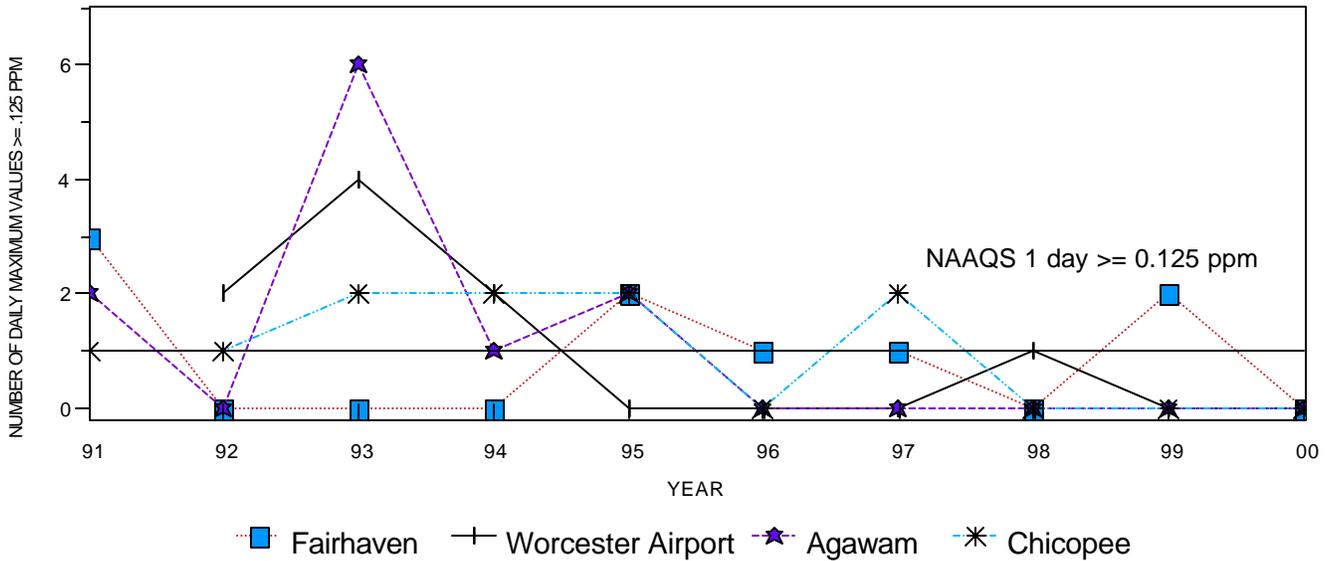


MASSACHUSETTS  
NITROGEN DIOXIDE (NO2) UNITS: 007 PPM

SITE ID	O C	M T	CITY	COUNTY	ADDRESS	YR	REP ORG	MAX #OBS	1-HR 1ST	1-HR 2ND	MAX 24-HR 1ST	MAX 24-HR 2ND	ARIT MEAN	METH
25-001-0002	1	8	TRURO	BARNSTABLE	FOX BOTTOM AREA-CAPE COD N	00	001	6303	0.04	0.03			0.003 ?	74
25-005-1005	1	8	EASTON	BRISTOL	1 BORDERLAND ST.	00	001	5293	0.05	0.05			0.007 ?	82
25-009-2006	1	8	LYNN	ESSEX	390 PARKLAND AVE. (LYNN WA	00	001	5102	0.06	0.06			0.011 ?	82
25-009-4004	1	8	NEWBURY	ESSEX	SUNSET BOULEVARD	00	001	6333	0.04	0.04			0.006 ?	74
25-013-0003	1	8	AGAWAM	HAMPDEN	152 SOUTH WESTFIELD STREET	00	001	6311	0.05	0.05			0.009 ?	74
25-013-0008	1	8	CHICOPEE	HAMPDEN	ANDERSON ROAD AIR FORCE BA	00	001	6138	0.06	0.06			0.013 ?	82
25-013-0016	1	2	SPRINGFIELD	HAMPDEN	LIBERTY STREET PARKING LOT	00	001	8385	0.10	0.10			0.026	0
25-015-4002	1	8	WARE	HAMPSHIRE	QUABBIN SUMMIT	00	001	7480	0.05	0.05			0.006	82
25-025-0002	1	3	BOSTON	SUFFOLK	KENMORE SQUARE, 590 COMMON	00	001	7591	0.09	0.09			0.029	82
25-025-0021	1	1	BOSTON	SUFFOLK	340 BREMAN STREET, EAST BO	00	001	7575	0.08	0.08			0.022	74
25-025-0040	1	4	BOSTON	SUFFOLK	531A EAST FIRST STREET	00	005	8300	0.10	0.08			0.020	74
25-025-0041	1	8	BOSTON	SUFFOLK	LONG ISLAND HOSPITAL ROAD	00	001	5407	0.07	0.07			0.011 ?	0
25-025-0042	1	1	BOSTON	SUFFOLK	HARRISON AVENUE	00	001	3119	0.06	0.06			0.024 ?	74
25-027-0020	1	2	WORCESTER	WORCESTER	CENTRAL STREET FIRE STATIO	00	001	7786	0.07	0.06			0.018	74

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# MASSACHUSETTS OZONE



MASSACHUSETTS  
 OZONE - 44201 UNITS:007 PPM  
 OZONE SEASON: APR01 TO SEP 30

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	YR	REP ORG	NUM MEAS	NUM REQ	VALID DAILY 1-HR MAXIMUM *****MAXIMA*****				VALS>0.125 MEASEST	MISS DAYS ASUMD	STANDARD METH		
									1ST	2ND	3RD	4TH					
25-001-0002	1	8	TRURO	BARNSTABLE	FOX BOTTOM AREA-	00	001	179	183	0.14	0.107	0.105	0.100	1	1	4	87
25-003-4002	1	2	ADAMS	BERKSHIRE	MT. GREYLOCK SUM	00	001	125	183	0.09	0.088	0.079	0.079	0	0	2	87
25-005-1002	1	2	FAIRHAVEN	BRISTOL	LEROY WOOD SCHOO	00	001	175	183	0.11	0.101	0.094	0.092	0	0	0	87
25-005-1005	1	7	EASTON	BRISTOL	1 BORDERLAND ST.	00	001	171	183	0.10	0.088	0.083	0.083	0	0	2	87
25-009-0005	1	1	LAWRENCE	ESSEX	HIGH STREET, STO	00	001	174	183	0.08	0.072	0.070	0.067	0	0	7	87
25-009-2006	1	8	LYNN	ESSEX	390 PARKLAND AVE	00	001	179	183	0.10	0.085	0.079	0.077	0	0	2	87
25-009-4004	1	7	NEWBURY	ESSEX	SUNSET BOULEVARD	00	001	178	183	0.10	0.085	0.082	0.082	0	0	3	87
25-013-0003	1	8	AGAWAM	HAMPDEN	152 SOUTH WESTFI	00	001	170	183	0.10	0.096	0.096	0.091	0	0	4	87
25-013-0008	1	7	CHICOPEE	HAMPDEN	ANDERSON ROAD AI	00	001	181	183	0.11	0.099	0.093	0.089	0	0	2	87
25-015-0103	1	2	AMHERST	HAMPSHIRE	NORTH PLEASANT S	00	001	182	183	0.10	0.090	0.077	0.074	0	0	1	87
25-015-4002	1	7	WARE	HAMPSHIRE	QUABBIN SUMMIT	00	001	177	183	0.10	0.096	0.093	0.088	0	0	2	87
25-017-1102	1	1	STOW	MIDDLESEX	US MILITARY RESE	00	001	162	183	0.10	0.086	0.083	0.081	0	0	7	87
25-025-0041	1	8	BOSTON	SUFFOLK	LONG ISLAND HOSP	00	001	176	183	0.09	0.089	0.089	0.083	0	0	2	87
25-025-0042	1	1	BOSTON	SUFFOLK	HARRISON AVENUE	00	001	183	183	0.09	0.078	0.069	0.068	0	0	0	0
25-027-0015	1	1	WORCESTER	WORCESTER	WORCESTER AIRPOR	00	001	179	183	0.10	0.098	0.091	0.088	0	0	2	87

MASSACHUSETTS  
 OZONE - 44201 UNITS:007 PPM  
 OZONE SEASON: APR01 TO SEP 30

AIRS Site No	State	Location	County	yr	1st Max	2d Max	3d Max	4th max	Days
					8-Hour	8-Hour	8-Hour	8-Hour	
25-001-0002	MA	TRURO	BARNSTABLE CO	00	0.126	0.094	0.091	0.083	3
25-003-4002	MA	ADAMS	BERKSHIRE CO	00	0.090	0.078	0.074	0.072	1
25-005-1002	MA	FAIRHAVEN	BRISTOL CO	00	0.105	0.090	0.085	0.082	3
25-005-1005	MA	EASTON	BRISTOL CO	00	0.081	0.077	0.074	0.072	0
25-009-0005	MA	LAWRENCE	ESSEX CO	00	0.067	0.062	0.062	0.060	0
25-009-2006	MA	LYNN	ESSEX CO	00	0.089	0.073	0.073	0.070	1
25-009-4004	MA	NEWBURY	ESSEX CO	00	0.082	0.074	0.074	0.071	0
25-013-0003	MA	AGAWAM	HAMPDEN CO	00	0.089	0.080	0.073	0.071	1
25-013-0008	MA	CHICOPEE	HAMPDEN CO	00	0.090	0.084	0.084	0.079	1
25-015-0103	MA	AMHERST	HAMPSHIRE CO	00	0.086	0.082	0.066	0.065	1
25-015-4002	MA	WARE	HAMPSHIRE CO	00	0.091	0.089	0.080	0.076	2
25-017-1102	MA	STOW	MIDDLESEX CO	00	0.099	0.077	0.075	0.073	1
25-017-4003	MA	WALTHAM	MIDDLESEX CO	00	.	.	.	.	.
25-025-0041	MA	BOSTON	SUFFOLK CO	00	0.084	0.076	0.073	0.072	0
25-025-0042	MA	BOSTON	SUFFOLK CO	00	0.081	0.062	0.061	0.061	0
25-025-1003	MA	CHELSEA	SUFFOLK CO	00	.	.	.	.	.
25-027-0015	MA	WORCESTER	WORCESTER CO	00	0.095	0.081	0.077	0.076	1

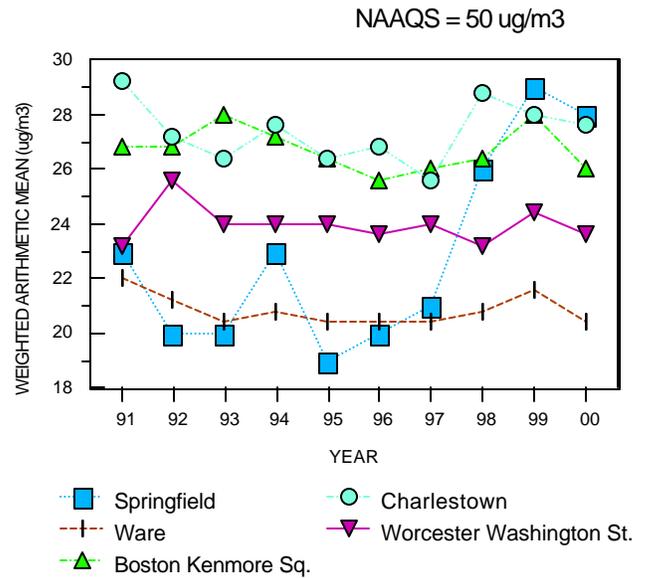
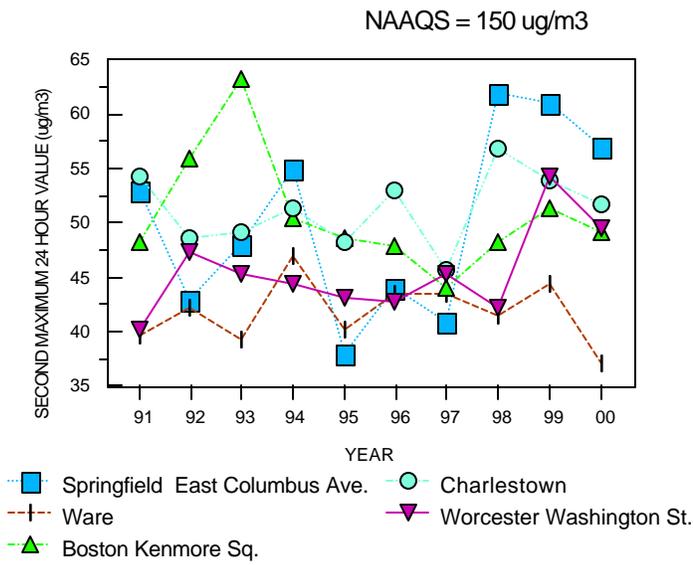
## PM 2.5 Massachusetts

PM 2.5 LOCAL CONDITIONS (88101) MASSACHUSETTS

SITE ID	C	T	CITY	COUNTY	ADDRESS	REP		MAXIMUM VALUES				ARITH					
						YR	ORG	#OBS	1ST	2ND	3RD	4TH	MEAN	METH	UNITS	INT	
025-003-5001	1	2	PITTSFIELD	BERKSHIRE	78 CENTER STREET, P	00	001	106	45.2	38.4	28.8	26.2	11.8	5	120	105	7
25-005-2004	1	2	NEW BEDFORD	BRISTOL	YMCA, 25 WATER STRE	00	001	85	29.3	27.6	27.4	26.2	11.8	?	120	105	7
25-005-3001	1	2	FALL RIVER	BRISTOL	CENTRAL FIRE STATIO	00	001	110	47.1	29.6	28.8	27.7	11.7	?	120	105	7
25-009-2006	1	2	LYNN	ESSEX	390 PARKLAND AVE. (	00	001	93	28.0	27.2	26.3	22.9	11.5	?	120	105	7
25-009-5005	1	2	Haverhill	ESSEX	WASHINGTON ST. (CON	00	001	102	36.0	31.5	27.3	26.2	11.0	?	120	105	7
25-009-6001	1	2	LAWRENCE	ESSEX	WALL EXPERIMENT STA	00	001	72	25.6	19.1	19.0	18.4	9.8	?	119	105	7
25-013-0008	1	2	CHICOPEE	HAMPDEN	ANDERSON ROAD AIR F	00	001	215	49.6	32.3	30.3	30.0	10.4	?	120	105	7
25-013-0008	5	T	CHICOPEE	HAMPDEN	ANDERSON ROAD AIR F	00	822	3	10.0	9.2	3.5		7.6	?	830	105	7
25-013-0016	1	2	SPRINGFIELD	HAMPDEN	LIBERTY STREET PARK	00	001	117	46.1	37.6	36.7	35.7	13.8	?	120	105	7
25-013-0016	2	3	SPRINGFIELD	HAMPDEN	LIBERTY STREET PARK	00	001	92	47.0	38.0	36.6	33.0	13.2	?	120	105	7
25-013-2007	1	2	SPRINGFIELD	HAMPDEN	EAST COLUMBUS AVENU	00	001	201	52.4	39.5	37.2	36.5	15.4	?	120	105	7
25-015-4002	1	2	WARE	HAMPSHIRE	QUABBIN SUMMIT	00	001	112	28.1	26.0	25.2	21.7	8.9	?	120	105	7
25-017-0008	1	2	LOWELL	MIDDLESEX	50 FRENCH STREET, L	00	001	34	27.4	21.1	16.9	16.6	10.0	?	120	105	7
25-017-1102	1	2	STOW	MIDDLESEX	US MILITARY RESERVA	00	001	73	28.3	26.8	19.2	18.4	9.2	?	120	105	7
25-021-0007	1	2	QUINCY	NORFOLK	HANCOCK STREET	00	001	63	29.7	26.4	23.4	18.6	9.9	?	120	105	7
25-021-0007	2	3	QUINCY	NORFOLK	HANCOCK STREET	00	001	43	26.5	25.4	24.0	15.4	9.8	?	120	105	7
25-023-0004	1	2	BROCKTON	PLYMOUTH	120 COMMERCIAL ST,	00	001	95	27.3	25.7	25.5	25.4	10.6	?	120	105	7
25-023-0004	2	3	BROCKTON	PLYMOUTH	120 COMMERCIAL ST,	00	001	85	27.3	26.1	24.6	23.8	9.8	?	120	105	7
25-023-0004	3	2	BROCKTON	PLYMOUTH	120 COMMERCIAL ST,	00	001	65	28.0	25.7	24.6	22.0	11.6	?	118	105	7
25-025-0002	1	2	BOSTON	SUFFOLK	KENMORE SQUARE, 590	00	001	93	35.5	29.5	27.6	27.1	13.5	?	120	105	7
25-025-0027	1	2	BOSTON	SUFFOLK	ONE CITY SQUARE, CH	00	001	103	38.9	38.2	38.0	35.9	13.9	?	120	105	7
25-025-0027	2	3	BOSTON	SUFFOLK	ONE CITY SQUARE, CH	00	001	31	23.8	23.5	20.1	19.8	12.3	?	120	105	7
25-025-0042	1	2	BOSTON	SUFFOLK	HARRISON AVENUE	00	001	278	36.6	36.0	34.7	34.1	13.0	?	120	105	7
25-025-0042	3	3	BOSTON	SUFFOLK	HARRISON AVENUE	00	001	6883	51.1	51.0	45.5	44.4	8.2	?	711	105	1
25-025-0042	4	3	BOSTON	SUFFOLK	HARRISON AVENUE	00	001	3658	65.9	62.9	60.6	57.3	14.4	?	0	105	1
25-025-0042	5	T	BOSTON	SUFFOLK	HARRISON AVENUE	00	822	47	34.7	24.8	24.0	20.2	12.1	?	820	105	7
25-025-0042	6	T	BOSTON	SUFFOLK	HARRISON AVENUE	00	822	48	25.9	21.8	21.8	20.0	11.3	?	820	105	7
25-025-0042	7	T	BOSTON	SUFFOLK	HARRISON AVENUE	00	822	36	25.3	22.6	18.7	18.5	10.0	?	830	105	7
25-025-0043	1	2	BOSTON	SUFFOLK	174 NORTH STREET BO	00	001	88	38.0	35.2	33.0	31.5	15.6	?	120	105	7
25-027-0016	1	2	WORCESTER	WORCESTER	2 WASHINGTON STREET	00	001	104	34.0	27.4	26.6	26.0	11.8	?	120	105	7
25-027-0020	2	3	WORCESTER	WORCESTER	CENTRAL STREET FIRE	00	001	85	34.6	31.8	28.9	27.2	11.9	?	120	105	7
25-027-2004	1	2	FITCHBURG	WORCESTER	67 RINDGE ROAD, FIT	00	001	88	23.2	21.1	20.7	20.4	9.8	?	120	105	7

Please Note: in the calculation of PM2.5 summary statistics data points with data qualifiers were used. A list and discussion of data qualifiers for PM2.5 data is presented on Page 8.

# MASSACHUSETTS PM10

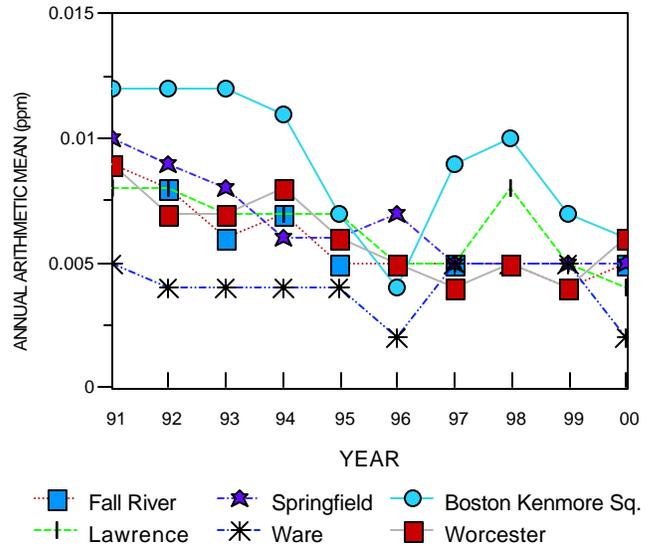
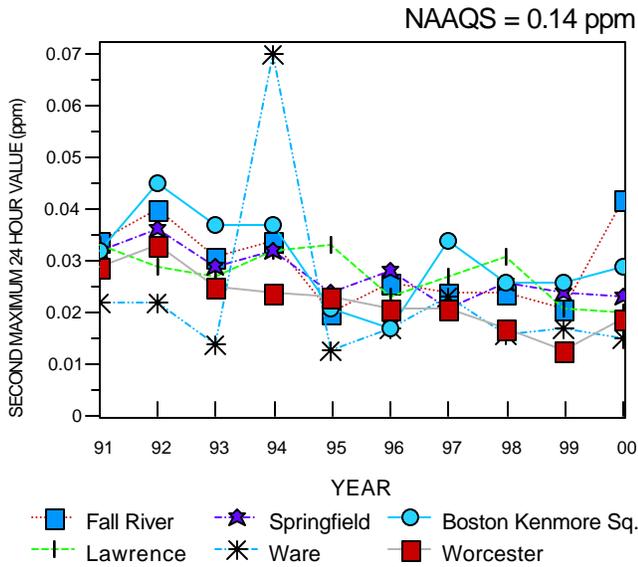


MASSACHUSETTS  
PM10 TOTAL 0-10UM - 81102 UNITS-001 UG/CU METER(25 C)

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	REP YR	NUM ORG	SCHEDULED NUM OBS	NUM %	NUM REQ	***MAXIMUM VALUES***				VALS > 150		WTD ARITH		
										1ST	2ND	3RD	4TH	MEAS	EST	MEAN	METH	
25-013-0011	2 2	SPRINGFIEL	HAMPDEN	59 HOWARD STREET	00	001	55	55	86	64	53	52	43	38	0	0	21	63
25-013-2007	1 1	SPRINGFIEL	HAMPDEN	EAST COLUMBUS AVENUE	00	001	58	58	91	64	77	57	56	53	0	0	28	63
25-013-2007	3 3	SPRINGFIEL	HAMPDEN	EAST COLUMBUS AVENUE	00	001	51	51	80	64	79	57	57	52	0	0	28 ?	63
25-015-4002	1 2	WARE	HAMPSHIRE	QUABBIN SUMMIT	00	001	58	58	91	64	54	25	22	22	0	0	11	62
25-025-0002	1 1	BOSTON	SUFFOLK	KENMORE SQUARE, 590 C	00	001	57	57	89	64	73	53	47	46	0	0	25	63
25-025-0012	1 1	BOSTON	SUFFOLK	115 SOUTHAMPTON STREE	00	001	42	42	66	64	42	34	34	33	0	0	18 ?	62
25-025-0012	2 3	BOSTON	SUFFOLK	115 SOUTHAMPTON STREE	00	001	13	13	81	16	33	31	26	26	0	0	20 ?	62
25-025-0024	1 1	BOSTON	SUFFOLK	200 COLUMBUS AVENUE	00	001	48	48	75	64	57	46	45	36	0	0	24 ?	63
25-025-0027	1 1	BOSTON	SUFFOLK	ONE CITY SQUARE, CHAR	00	001	55	55	86	64	70	59	58	56	0	0	29	63
25-025-0027	3 3	BOSTON	SUFFOLK	ONE CITY SQUARE, CHAR	00	001	50	50	78	64	63	59	56	55	0	0	29 ?	63
25-027-0016	1 1	WORCESTER	WORCESTER	2 WASHINGTON STREET	00	001	57	57	89	64	80	54	45	41	0	0	19	62

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# MASSACHUSETTS SULFUR DIOXIDE



MASSACHUSETTS  
SULFUR DIOXIDE 42401 UNITS:007 PPM

SITE ID	P O M C	T	CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR			MAX 3-HR			MAX 1-HR		ARIT MEAN	METH
									1ST	2ND	STD	1ST	2ND	STD	1ST	2ND		
25-005-1004	1	1	FALL RIVER	BRISTOL	GLOBE STREET	00	001	8515	0.055	0.042	0	0.096	0.094	0	0.146	0.126	0.005	77
25-009-0005	1	1	LAWRENCE	ESSEX	HIGH STREET, STOR	00	001	8378	0.020	0.020	0	0.057	0.047	0	0.070	0.066	0.004	60
25-013-0016	1	1	SPRINGFIELD	HAMPDEN	LIBERTY STREET PA	00	001	8573	0.025	0.023	0	0.060	0.044	0	0.081	0.060	0.005	60
25-015-4002	1	2	WARE	HAMPSHIRE	QUABBIN SUMMIT	00	001	8226	0.015	0.015	0	0.022	0.022	0	0.031	0.024	0.002	0
25-017-1701	1	4	STONEHAM	MIDDLESEX	HILL STREET	00	025	1888	0.043	0.034	0	0.117	0.059	0	0.238	0.088	0.014 ?	9
25-025-0002	1	1	BOSTON	SUFFOLK	KENMORE SQUARE, 5	00	001	8539	0.033	0.029	0	0.050	0.050	0	0.059	0.055	0.006	61
25-025-0019	1	4	BOSTON	SUFFOLK	LONG ISLAND, BOST	00	005	8360	0.023	0.019	0	0.042	0.041	0	0.065	0.062	0.004	60
25-025-0020	1	4	BOSTON	SUFFOLK	DEWAR STREET, DOR	00	005	5934	0.035	0.035	0	0.055	0.049	0	0.063	0.055	0.006 ?	60
25-025-0021	1	1	BOSTON	SUFFOLK	340 BREMAN STREET	00	001	8075	0.022	0.017	0	0.045	0.044	0	0.054	0.052	0.004	0
25-025-0021	2	4	BOSTON	SUFFOLK	340 BREMAN STREET	00	005	8372	0.029	0.027	0	0.054	0.047	0	0.061	0.060	0.006	60
25-025-0040	1	4	BOSTON	SUFFOLK	531A EAST FIRST S	00	005	8339	0.032	0.030	0	0.067	0.057	0	0.089	0.072	0.006	60
25-025-0042	1	1	BOSTON	SUFFOLK	HARRISON AVENUE	00	001	5027	0.027	0.023	0	0.041	0.037	0	0.071	0.058	0.007 ?	60
25-027-0020	1	1	WORCESTER	WORCESTER	CENTRAL STREET FI	00	001	8589	0.019	0.019	0	0.031	0.031	0	0.040	0.038	0.006	60

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

## NEW HAMPSHIRE SUMMARY

In 2000, there were no exceedances or violations of the 8-hour or 1-hour NAAQSs at either of the two carbon monoxide monitoring (CO) sites in the state. This is the fourth year in a row with no exceedances. The last exceedance of the 8-hour carbon monoxide NAAQS was in 1996 with Manchester reporting a value of 13.5 ppm. Nashua reported the highest second maximum 8-hour average in 2000 of 4.1 ppm or 46% of the NAAQS. The ten year graphs of CO levels show significant year to year fluctuations.

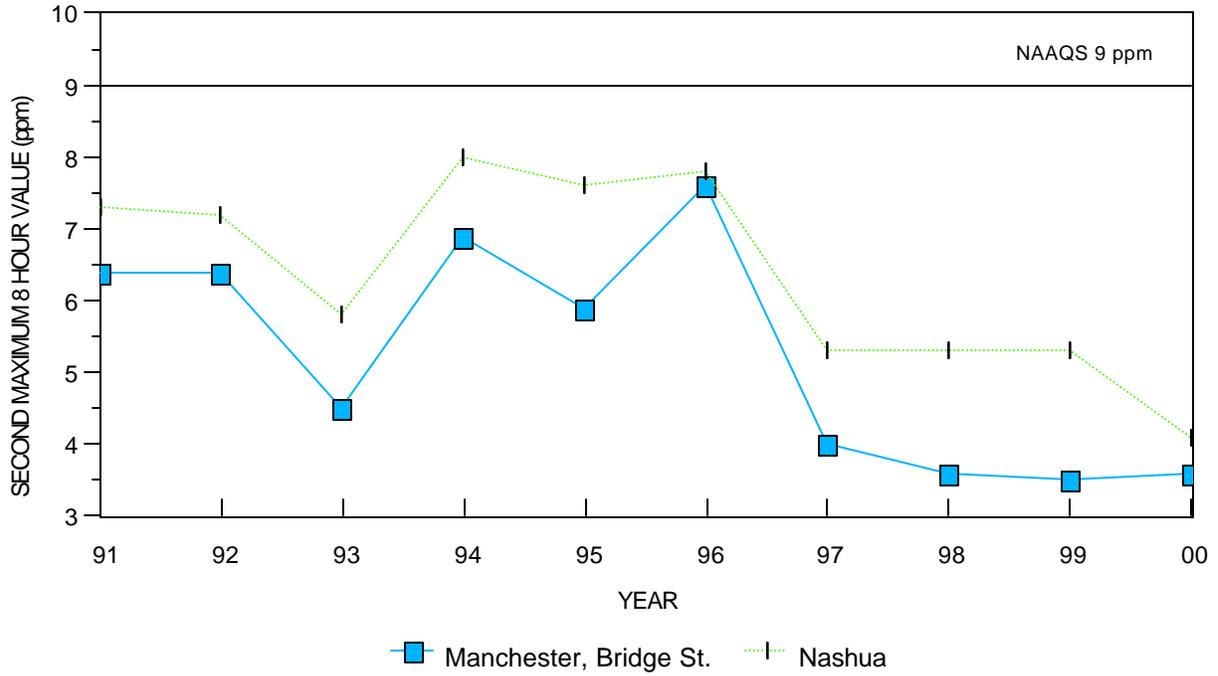
In 1996 New Hampshire discontinued lead (Pb) monitoring, because air quality levels were well below the NAAQS and approaching minimum detection levels. In 2000 nitrogen dioxide (NO<sub>2</sub>) monitoring was conducted at three sites. The Manchester site measured the maximum NO<sub>2</sub> annual average of 11 ppb or 22% of the NAAQS. There have been no significant trends for NO<sub>2</sub> in the last ten years.

None of the thirteen ozone (O<sub>3</sub>) sites operating in New Hampshire reported violations of the 1-hour NAAQS in 2000. The Rye Harbor site reported the highest daily maximum 1-hour value of 0.102 ppm or 85% of the standard. 1997 was the last year any sites in New Hampshire reported exceedances or violations to the ozone 1-hour NAAQS. For the 8-hour ozone standard in 2000, none of the thirteen O<sub>3</sub> sites reported a fourth high day of at least 85 ppb. The maximum 8-hour average in 2000 was in Keene at 0.092 ppm

None of the thirteen Particulate Matter (with a mass mean diameters of less than 10 microns) (PM<sub>10</sub>) sites in New Hampshire had any exceedances or violations of the annual or 24-hour NAAQS for PM<sub>10</sub> in 2000, 1999, 1998 or 1997. The highest 24 hour values were reported at Berlin with a highest second maximum value of 72 ug/m<sup>3</sup> or 48% of the daily standard. The maximum annual average was also recorded in Berlin with a reported concentration of 28 ug/m<sup>3</sup> or 56% of the NAAQS. Over the past ten years all the New Hampshire PM<sub>10</sub> monitoring sites have recorded particulate matter concentrations below the annual and the 24-hour NAAQS. Yearly variability in the data is common, in part determined by meteorology, transport of particulate matter from distant sources, and changes in the emission strength of local sources. For PM<sub>2.5</sub> New Hampshire established a network of 9 stations which began operation in 1999. The Portsmouth and Manchester areas reported the highest PM<sub>2.5</sub> concentrations.

There were no exceedances or violations reported at any of the ten sulfur dioxide (SO<sub>2</sub>) sites in 2000. The highest annual arithmetic mean was reported in Keene at 6 ppb or 20% of the NAAQS. Pembroke reported the highest 24-hour second maximum of 48 ppb or 34% of the standard, and reported the highest 3-hour second maximum of 194 ppb or 39% of NAAQS. Statewide, the SO<sub>2</sub> ten-year data showed no significant trends.

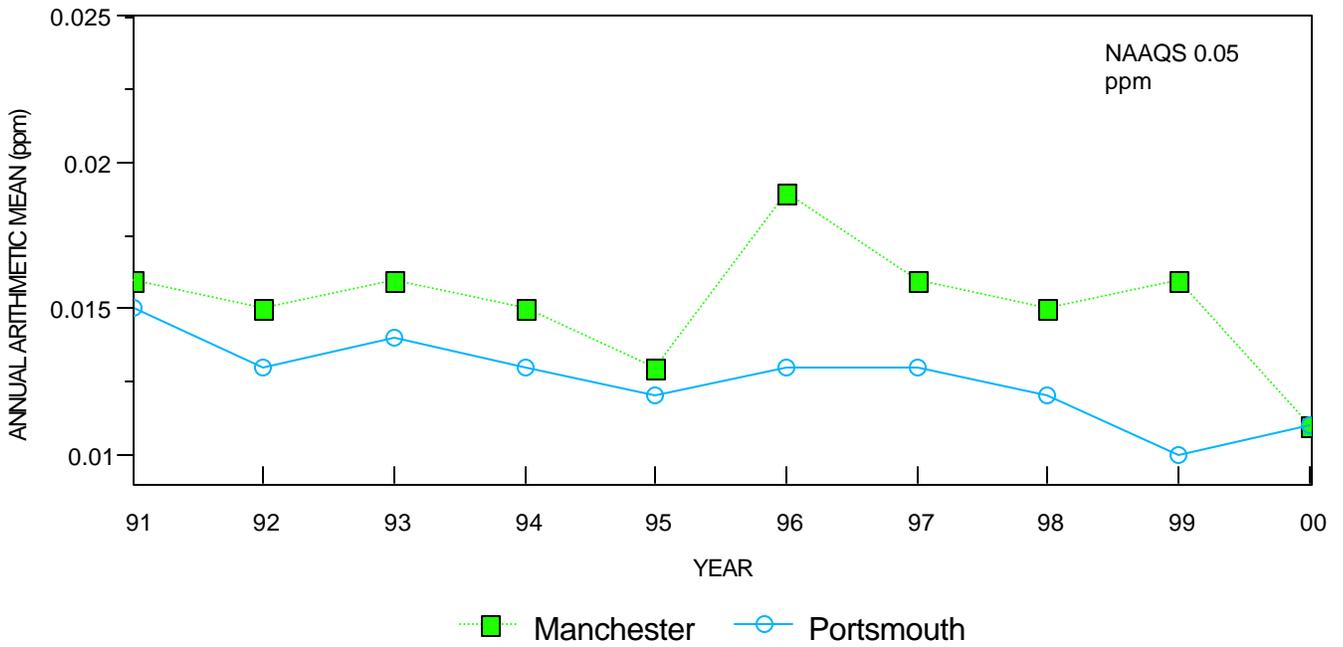
# NEW HAMPSHIRE CARBON MONOXIDE



Carbon Monoxide - New Hampshire

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	REP		MAX 1ST	1-HR 2ND	OBS 35	MAX 1ST	8-HR 2ND	OBS 9	METH	
					YR	ORG #OBS								
33-011-0018	1 2	MANCHESTER	HILLSBOROUGH	20 BRIDGE STREET	00	001	8593	7.1	7.1	0	4.2	3.6	0	11
33-011-1009	1 2	NASHUA	HILLSBOROUGH	25 MAIN STREET, MATARAZZ	00	001	7773	11.0	8.0	0	4.6	4.1	0	11

# NEW HAMPSHIRE NITROGEN DIOXIDE

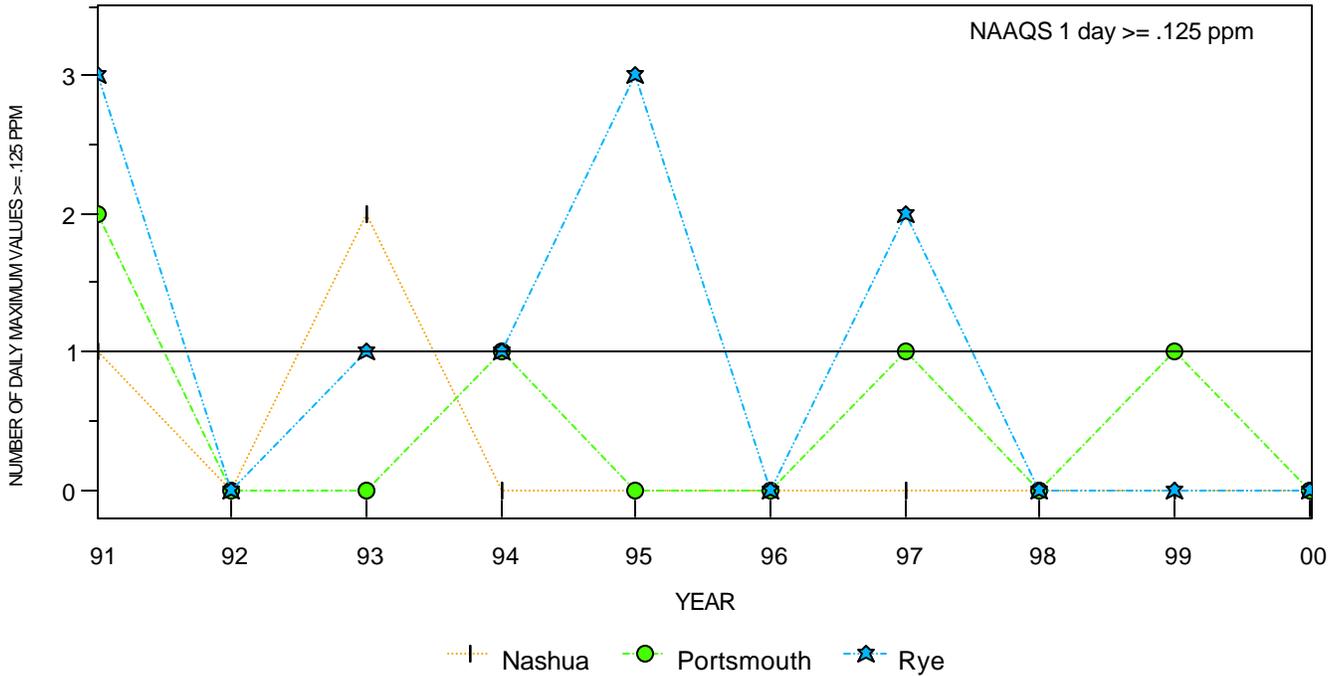


NEW HAMPSHIRE  
 NITROGEN DIOXIDE (NO2) UNITS: 007 PPM

SITE ID	O C	M T	CITY	COUNTY	ADDRESS	REP			MAX	1-HR	MAX	24-HR	ARIT	METH
						YR	ORG	#OBS	1ST	2ND	1ST	2ND	MEAN	
33-011-0019	1	2	MANCHESTER	HILLSBOROUGH	NORTH COMMERCIAL STREET	00	001	8022	0.05	0.05			0.011	14
33-015-0009	1	2	PORTSMOUTH	ROCKINGHAM	VAUGHAN STREET	00	001	6156	0.06	0.06			0.011 ?	14
33-015-0013	1	3		ROCKINGHAM	SOUTH ROAD BRENTWOOD NH	00	001	8404	0.05	0.04			0.006	14

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# NEW HAMPSHIRE OZONE



NEW HAMPSHIRE  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

SITE ID	P O M C T CITY	COUNTY	ADDRESS	YR	REP ORG	NUM MEAS	NUM REQ	VALID DAILY 1-HR MAXIMUM				MISS DAYS			
								1ST	2ND	3RD	4TH	VALS>0.125	ASSUMED <		
33-003-1002	1 2 CONWAY	CARROLL	KANKAMAUGUS HIGH	00	001	183	183	0.078	0.069	0.067	0.065	0	0	0	0
33-005-0007	1 2 KEENE	CHESHIRE	RAILROAD STREET	00	001	172	183	0.096	0.080	0.080	0.077	0	0	3	0
33-007-4001	1 3	COOS	MT. WASHINGTON	00	002	124	183	0.085	0.079	0.074	0.074	0	0	3	20
33-007-4002	1 3	COOS	CAMP DODGE, ROUT	00	002	125	183	0.069	0.068	0.067	0.066	0	0	0	20
33-009-0008	1 2 HAVERHILL	GRAFTON	HAVERHILL ARMORY	00	001	180	183	0.083	0.082	0.076	0.074	0	0	1	0
33-011-0019	1 2 MANCHESTER	HILLSBOROUGH	NORTH COMMERCIAL	00	001	171	183	0.094	0.089	0.076	0.072	0	0	4	0
33-011-1010	1 2 NASHUA	HILLSBOROUGH	SANDERS ASSOCIAT	00	001	165	183	0.099	0.089	0.081	0.080	0	0	3	11
33-013-0007	1 2 CONCORD	MERRIMACK	STORRS STREET	00	001	166	183	0.095	0.082	0.072	0.071	0	0	8	11
33-015-0009	1 1 PORTSMOUTH	ROCKINGHAM	VAUGHAN STREET	00	001	180	183	0.097	0.084	0.084	0.079	0	0	1	0
33-015-0012	1 2 RYE	ROCKINGHAM	RYE HARBOR STATE	00	001	177	183	0.102	0.081	0.078	0.077	0	0	4	0
33-015-0013	1 3	ROCKINGHAM	SOUTH ROAD BRENT	00	001	173	183	0.076	0.070	0.070	0.069	0	0	1	0
33-017-3002	1 2 ROCHESTER	STRAFFORD	ROCHESTER HILL R	00	001	180	183	0.079	0.078	0.076	0.076	0	0	0	0
33-019-0003	1 2 CLAREMONT	SULLIVAN	SOUTH STREET	00	001	176	183	0.095	0.081	0.077	0.076	0	0	4	0

NEW HAMPSHIRE  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

AIRES Site No	State	Location	County	yr	1st Max 8-Hour	2d Max 8-Hour	3d Max 8-Hour	4th max 8-Hour	Days >0.08
33-001-2003	NH	LACONIA	BELKNAP CO	00	.	.	.	.	.
33-003-1002	NH	CONWAY	CARROLL CO	00	0.073	0.060	0.060	0.058	0
33-005-0007	NH	KEENE	CHESHIRE CO	00	0.092	0.070	0.069	0.063	1
33-007-4001	NH	NOT IN A CITY	COOS CO	00	0.074	0.069	0.068	0.067	0
33-007-4002	NH			00	0.064	0.063	0.062	0.059	0
33-009-0008	NH	HAVERHILL	GRAFTON CO	00	0.077	0.070	0.067	0.062	0
33-011-0016	NH	MANCHESTER	HILLSBOROUGH CO	00	.	.	.	.	.
33-011-0019	NH			00	0.079	0.078	0.070	0.063	0
33-011-1010	NH	NASHUA	HILLSBOROUGH CO	00	0.090	0.078	0.072	0.070	1
33-013-0007	NH	CONCORD	MERRIMACK CO	00	0.076	0.075	0.065	0.065	0
33-015-0009	NH	PORTSMOUTH	ROCKINGHAM CO	00	0.078	0.076	0.075	0.067	0
33-015-0012	NH	RYE	ROCKINGHAM CO	00	0.081	0.073	0.070	0.068	0
33-015-0013	NH	NOT IN A CITY	ROCKINGHAM CO	00	0.066	0.064	0.063	0.061	0
33-017-3002	NH	ROCHESTER	STRAFFORD CO	00	0.072	0.071	0.070	0.065	0
33-019-0003	NH	CLAREMONT	SULLIVAN CO	00	0.089	0.071	0.069	0.067	1

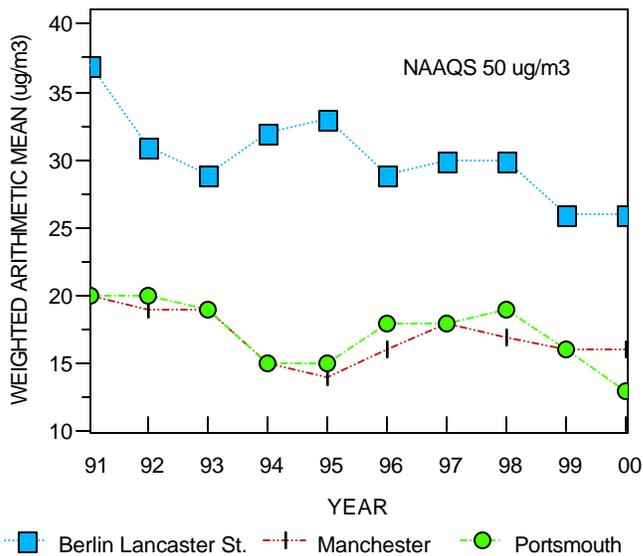
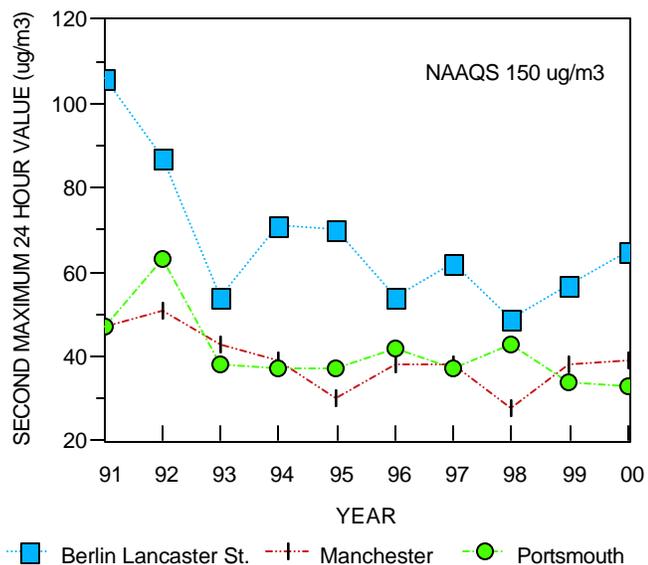
## PM 2.5 New Hampshire

PM 2.5 LOCAL CONDITIONS (88101) NEW HAMPSHIRE

SITE ID	C	T	CITY	COUNTY	ADDRESS	REP		#OBS	MAXIMUM VALUES				ARITH	MET	UNITS	INT
						YR	ORG		1ST	2ND	3RD	4TH	MEAN			
33-001-2003	1	2	LACONIA	BELKNAP	LACONIA MUNICIPAL A	00	001	15	24.2	22.1	12.9	12.5	10.85 ?	119	105	7
33-005-0007	1	2	KEENE	CHESHIRE	RAILROAD STREET	00	001	31	35.1	27.5	26.0	21.6	13.49 ?	119	105	7
33-007-0014	1	2	BERLIN	COOS	LANCASTER STREET TR	00	001	46	20.3	19.7	19.0	16.4	9.22 ?	120	105	7
33-007-0014	2	3	BERLIN	COOS	LANCASTER STREET TR	00	001	23	21.9	21.8	18.0	16.4	11.57 ?	120	105	7
33-011-0019	1	2	MANCHESTER	HILLSBOROUGH	NORTH COMMERCIAL ST	00	001	66	33.6	31.6	26.8	24.4	11.31 ?	120	105	7
33-011-0019	2	3	MANCHESTER	HILLSBOROUGH	NORTH COMMERCIAL ST	00	001	26	32.1	20.4	20.1	19.6	11.01 ?	120	105	7
33-011-1007	1	2	NASHUA	HILLSBOROUGH	MAIN STREET	00	001	59	26.1	20.8	19.9	19.9	10.64 ?	120	105	7
33-013-0003	1	2	CONCORD	MERRIMACK	NO. STATE HOUSE	00	001	53	35.0	32.9	30.9	30.3	12.08 ?	120	105	7
33-013-5001	1	2		MERRIMACK	MT. SUNAPEE	00	001	28	15.0	12.8	12.7	10.8	5.76 ?	119	105	7
33-015-0009	1	2	PORTSMOUTH	ROCKINGHAM	VAUGHAN STREET	00	001	52	26.9	24.0	20.5	18.6	10.26 ?	120	105	7
33-019-0003	1	2	CLAREMONT	SULLIVAN	SOUTH STREET	00	001	26	25.6	22.8	19.5	18.1	10.65 ?	119	105	7

Please Note: in the calculation of PM2.5 summary statistics data points with data qualifiers were used. A list and discussion of data qualifiers for PM2.5 data is presented on Page 8.

# NEW HAMPSHIRE PM10

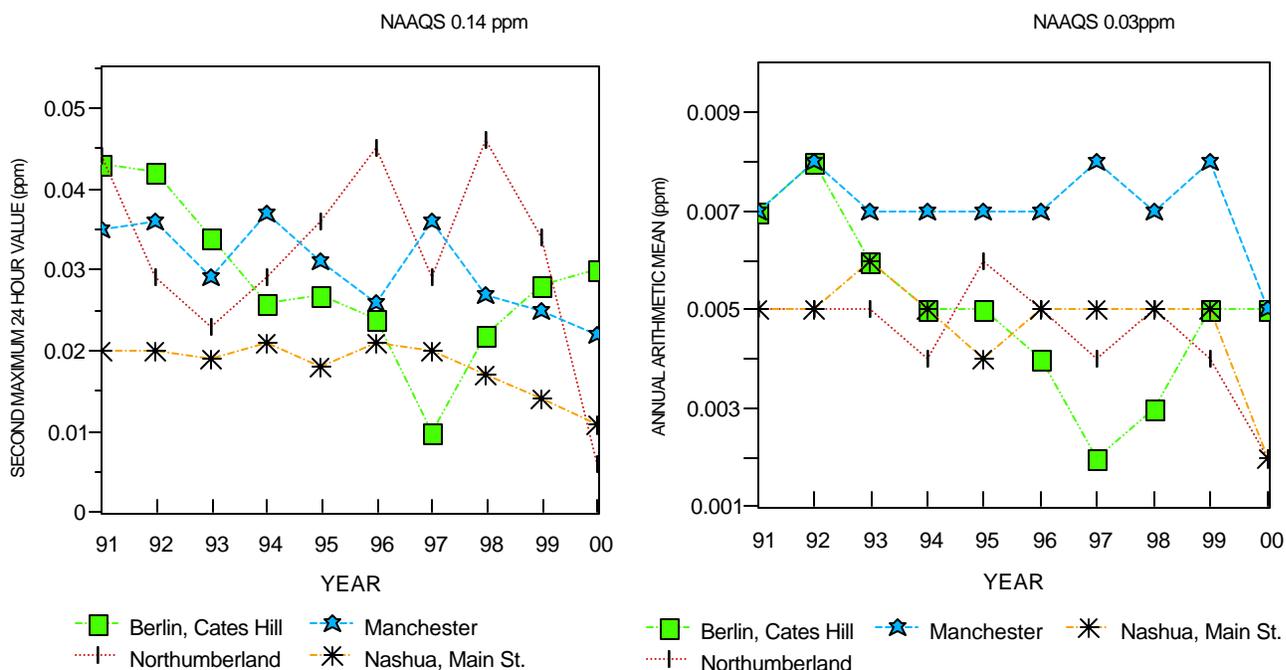


NEW HAMPSHIRE  
PM10 TOTAL 0-10UM - 81102 UNITS-001 UG/CU METER(25 C)

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	YR	ORG	OBS	OBS	OBS	SCHEDULED				***MAXIMUM VALUES***		VALS > 150		WTD	
										REQ	1ST	2ND	3RD	4TH	MEAS	EST	MEAN	METH	
33-005-0007	1 2	KEENE	CHESHIRE	RAILROAD STREET	00	001	59	58	91	64	47	41	41	36	0	0	19	64	
33-007-0014	1 2	BERLIN	COOS	LANCASTER STREET TRAI	00	902	56	56	88	64	72	65	61	44	0	0	26	64	
33-007-0014	2 3	BERLIN	COOS	LANCASTER STREET TRAI	00	902	54	54	84	64	80	72	52	46	0	0	28	62	
33-007-0019	1 2	BERLIN	COOS	CATES HILL RD	00	902	54	54	84	64	36	27	23	23	0	0	12	64	
33-007-1007	1 2	NORTHUMBER	COOS	ROUTES 110 AND 3, COV	00	902	44	43	90	48	31	29	29	28	0	0	15 ?	64	
33-011-0015	1 1	MANCHESTER	HILLSBOROU	351 CHESTNUT STREET,	00	001	51	50	78	64	43	39	26	25	0	0	16 ?	64	
33-011-0015	3 3	MANCHESTER	HILLSBOROU	351 CHESTNUT STREET,	00	001	52	51	80	64	45	37	35	34	0	0	15 ?	64	
33-011-1007	1 2	NASHUA	HILLSBOROU	MAIN STREET	00	001	57	56	88	64	34	29	29	29	0	0	15	64	
33-011-1010	1 2	NASHUA	HILLSBOROU	SANDERS ASSOCIATES, P	00	001	58	57	89	64	34	33	31	27	0	0	15	64	
33-011-2001	1 2	HOLLIS	HILLSBOROU	RTE. 122, SILVER LAKE	00	001	48	48	75	64	30	30	30	25	0	0	11 ?	64	
33-013-0003	1 2	CONCORD	MERRIMACK	NO. STATE HOUSE	00	001	48	47	73	64	27	26	24	23	0	0	11 ?	64	
33-013-5001	1 3		MERRIMACK	MT. SUNAPEE	00	001	45	45	70	64	19	17	15	15	0	0	6 ?	64	
33-015-0009	1 2	PORTSMOUTH	ROCKINGHAM	VAUGHAN STREET	00	001	52	51	80	64	34	33	31	27	0	0	13 ?	64	
33-017-0001	1 2	DOVER	STRAFFORD	CENTRAL AVE	00	001	59	57	89	64	35	29	27	26	0	0	13	64	
33-019-0003	1 2	CLAREMONT	SULLIVAN	SOUTH STREET	00	001	53	52	81	64	28	24	22	21	0	0	13 ?	64	
33-019-0003	2 3	CLAREMONT	SULLIVAN	SOUTH STREET	00	001	14	14	88	16	22	18	18	16	0	0	12 ?	64	

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# NEW HAMPSHIRE SULFUR DIOXIDE



NEW HAMPSHIRE  
 SULFUR DIOXIDE 42401 UNITS:007 PPM

SITE ID	O M C	T CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	OBS			OBS			ARIT MEAN	METH			
								MAX 24-HR 1ST	2ND	> STD	MAX 3-HR 1ST	2ND	> STD			MAX 1-HR 1ST	2ND	
33-005-0007	1	2	KEENE	CHESHIRE	RAILROAD STREET	00	001	7828	0.026	0.022	0	0.050	0.045	0	0.056	0.055	0.006	23
33-007-0019	1	2	BERLIN	COOS	CATES HILL RD	00	902	8646	0.037	0.030	0	0.095	0.077	0	0.132	0.131	0.005	39
33-007-1007	1	2	NORTHUMBERLAND	COOS	ROUTES 110 AND 3,	00	004	8398	0.007	0.006	0	0.016	0.015	0	0.024	0.024	0.002	23
33-011-0019	1	3	MANCHESTER	HILLSBOROUGH	NORTH COMMERCIAL	00	001	8199	0.024	0.022	0	0.054	0.052	0	0.083	0.079	0.005	23
33-011-1009	1	2	NASHUA	HILLSBOROUGH	25 MAIN STREET, M	00	001	6841	0.013	0.011	0	0.031	0.030	0	0.071	0.058	0.002	23
33-011-1010	1	2	NASHUA	HILLSBOROUGH	SANDERS ASSOCIATE	00	001	8094	0.023	0.020	0	0.037	0.036	0	0.051	0.045	0.004	23
33-013-0007	1	2	CONCORD	MERRIMACK	STORRS STREET	00	001	7833	0.018	0.015	0	0.068	0.064	0	0.102	0.100	0.003	23
33-013-1003	1	2	PEMBROKE	MERRIMACK	PEMBROKE HILL, BR	00	001	8336	0.048	0.044	0	0.194	0.125	0	0.249	0.212	0.005	23
33-015-0009	1	2	PORTSMOUTH	ROCKINGHAM	VAUGHAN STREET	00	001	8473	0.013	0.013	0	0.050	0.040	0	0.083	0.063	0.003	23
33-019-0003	1	2	CLAREMONT	SULLIVAN	SOUTH STREET	00	001	8565	0.016	0.015	0	0.030	0.030	0	0.033	0.033	0.004	23

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

## RHODE ISLAND SUMMARY

Neither of the two carbon monoxides (CO) monitors exceeded nor violated the 1-hour or 8-hour NAAQS. The Dorrance Street site in Providence reported the highest 8-hour second maximum value of 3.5 ppm or 39% of the NAAQS. In 1999 this site's highest second maximum 8-hour average reported was 3.9ppm, in 1998 it was 4.7 ppm and in 1997 this site reported a second maximum 8-hour average of 6 ppm. CO was also measured at the photochemical assessment monitoring station (PAMS) in East Providence in 2000, 1999 and 1998. In 2000 this site reported a second maximum value of 2.4 ppm or 27% of the NAAQS. The ten-year graphs show that CO levels have a slight downward trend.

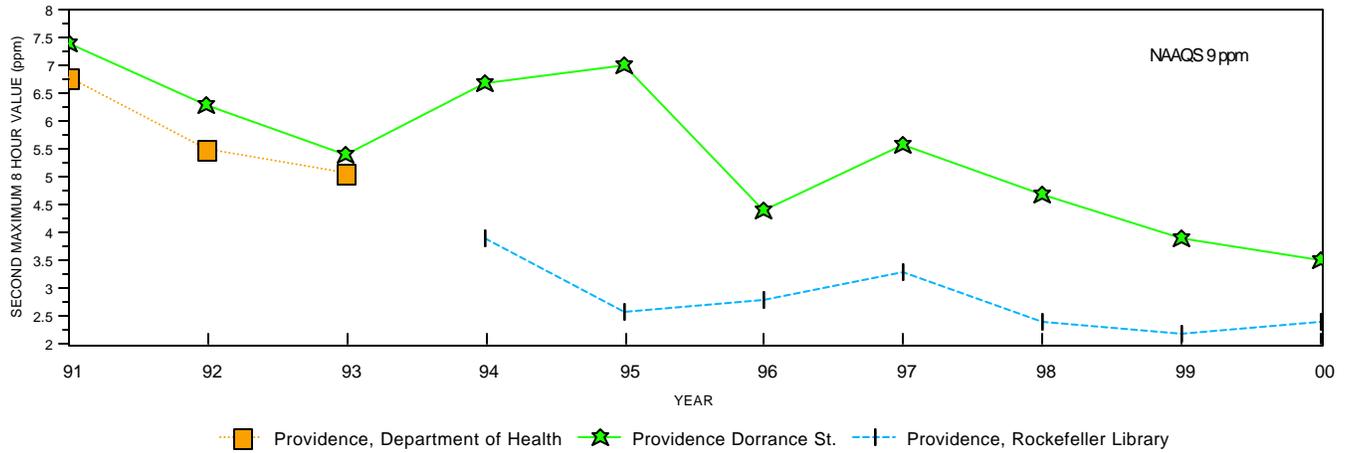
Rhode Island discontinued lead (Pb) monitoring in the state due to the extremely low lead concentrations monitored over the past few years. In 2000, three sites monitored for nitrogen dioxide (NO<sub>2</sub>). Two of these sites were photochemical assessment monitoring stations (PAMS) that operated during the summer season. None of the sites experienced any exceedances or violations of the NAAQS. The Rockefeller Library site in Providence reported the highest annual arithmetic mean, which was 0.020 ppm or 40% of the NAAQS. The ten-year graphs show that NO<sub>2</sub> levels have remained stable.

Two of the three ozone (O<sub>3</sub>) sites reported an exceedance of the 1-hour NAAQS during 2000 and 1999. No site reported an exceedance in 1998, only one site in 1997, and none of these sites reported levels above the NAAQS in 1996. The Narrangansett site had the highest 1-hour second maximum value of 0.149 ppm or 124% of the 1-hour NAAQS. For the 8-hour ozone standard, two of the three O<sub>3</sub> sites reported a fourth high day of at least 85 ppb in both 2000 and 1999. The maximum 8-hour average in 2000 was at the Narrangansett site at 0.126 ppm.

None of the four particulate matter (PM<sub>10</sub>) sites in Rhode Island had any exceedances or violations of the annual or 24-hour standards in 2000, 1999, 1998 or 1997. The Allens Avenue site reported both the highest 24-hour second maximum value (91 ug/m<sup>3</sup> or 61% of the standard) and the highest annual arithmetic mean (29 ug/m<sup>3</sup> or 58% of the standard). The ten-year graphs show no discernable trends for PM<sub>10</sub>. For PM<sub>2.5</sub>, Rhode Island established a network of 7 stations which began operation in 1999. In general, the Providence area reported the highest PM<sub>2.5</sub> concentrations.

Two sites in Rhode Island monitored for sulfur dioxide (SO<sub>2</sub>) this year. There were no exceedances or violations of the annual, 24-hour, or 3-hour NAAQS. Rockefeller Library in Providence reported the highest annual arithmetic mean at 7 ppb or 23% of the NAAQS. The Rockefeller Library reported the highest 24-hour second maximum of 26 ppb or 19% of the NAAQS and reported the highest 3-hour second maximum at 46 ppb or 9% of the NAAQS. The ten-year graphs show a slight downward trend.

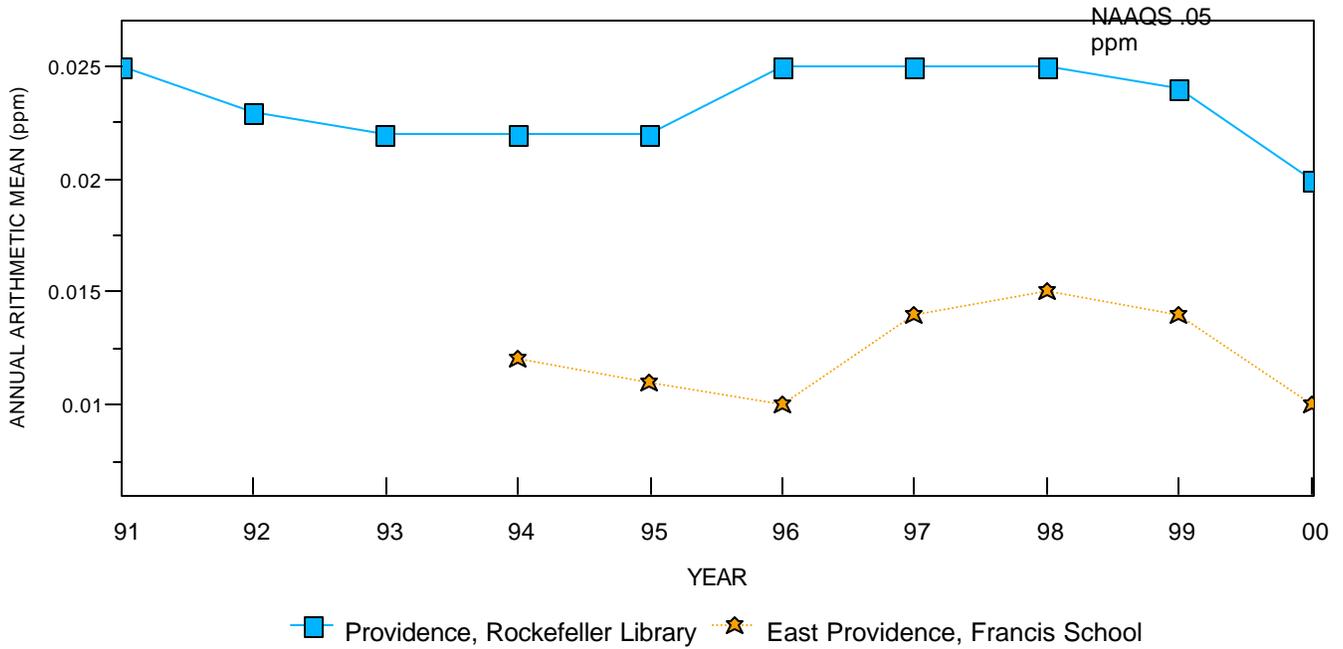
### RHODE ISLAND CARBON MONOXIDE



Carbon Monoxide - Rhode Island

SITE ID	P O C	M T	CITY	COUNTY	ADDRESS	REP YR	MAX #OBS	1-HR 1ST	OBS 2ND	MAX 35	8-HR		OBS 9	METH	
											1ST	2ND			
44-007-1009	1	1	PROVIDENCE	PROVIDENCE	76 DORRANCE STREET.	00	001	8283	6.5	5.4	0	4.6	3.5	0	11
44-007-1010	1	1	EAST PROVIDENCE	PROVIDENCE	FRANCIS SCHOOL, 64 BOURN	00	001	8138	4.7	3.9	0	2.6	2.4	0	0

## RHODE ISLAND NITROGEN DIOXIDE

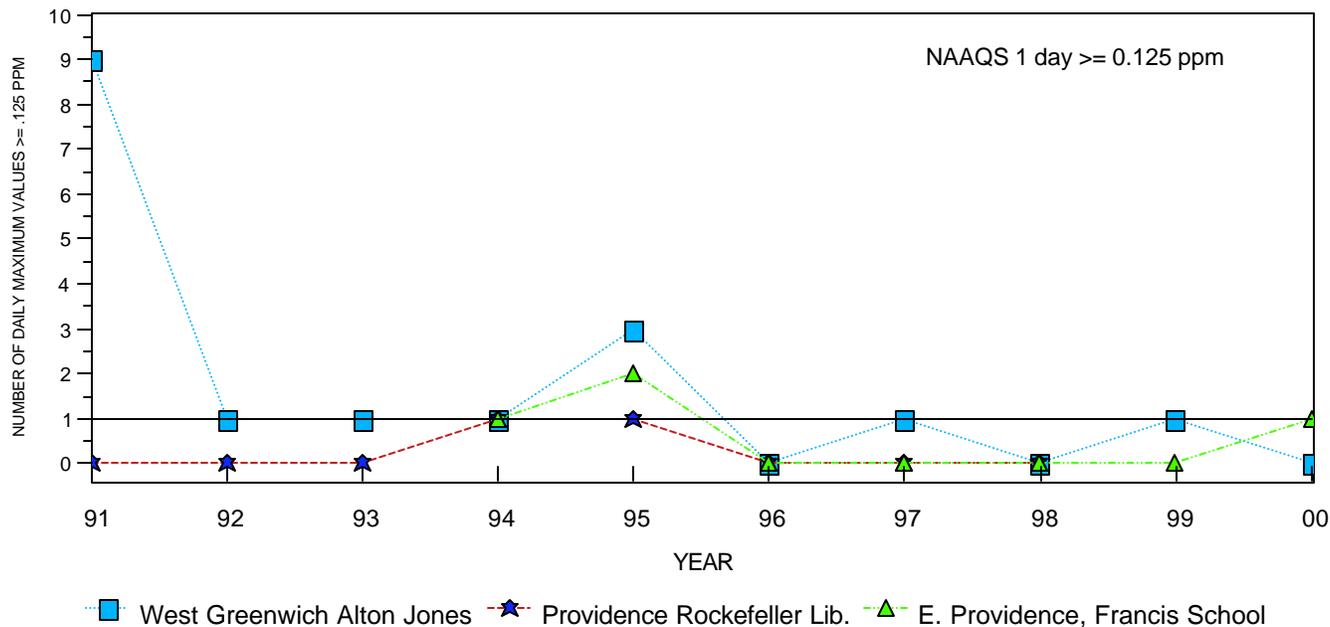


RHODE ISLAND  
 NITROGEN DIOXIDE (NO2) UNITS: 007 PPM

SITE ID	O C	M T	CITY	COUNTY	ADDRESS	REP YR	ORG	#OBS	MAX		1-HR		24-HR		ARIT MEAN	METH
									1ST	2ND	1ST	2ND	1ST	2ND		
44-003-0002	1	3		KENT	W. ALTON JONES CAMPUS URI	00	001	1961	0.016	0.015					0.003 ?	14
44-007-0012	2	2	PROVIDENCE	PROVIDENCE	ROCKEFELLER LIBRARY, PROSP	00	001	8313	0.072	0.071					0.020	14
44-007-1010	1	8	EAST PROVIDENCE	PROVIDENCE	FRANCIS SCHOOL, 64 BOURNE	00	001	1890	0.117	0.048					0.010 ?	14

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

## RHODE ISLAND OZONE



RHODE ISLAND  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

SITE ID	C	T	QTY	COUNTY	ADDRESS	YR	REP	NUM	MEAS	REQ	VALID DAILY 1-HR MAXIMUM				MISS DAYS		
											1ST	2ND	3RD	4TH	MEAS	EST	STANDARD
44-003-0002	1	2		KENT	W. ALTON JONES C	00	001	167	183	0.121	0.118	0.112	0.105	0	0	10	0
44-007-1010	1	7	EAST PROVIDEN	PROVIDENCE	FRANCIS SCHOOL,	00	001	176	183	0.127	0.115	0.105	0.096	1	1	5	0
44-009-0007	1	2	NARRAGANSETT	WASHINGTON	TARWELL ROAD, NA	00	001	182	183	0.149	0.116	0.101	0.098	1	1	1	14

RHODE ISLAND  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

AIRS Site No	State	Location	County	yr	1st Max 8-Hour	2d Max 8-Hour	3d Max 8-Hour	4th max 8-Hour	Days >0.08
44-003-0002	RI	NOT IN A CITY	KENT CO	00	0.098	0.094	0.089	0.087	5
44-007-1010	RI	EAST PROVIDENCE	PROVIDENCE CO	00	0.112	0.089	0.082	0.080	2
44-009-0007	RI	NARRAGANSETT	WASHINGTON CO	00	0.126	0.087	0.085	0.085	4

# PM 2.5 Rhode Island

## PM2.5 LOCAL CONDITIONS (88101) RHODE ISLAND

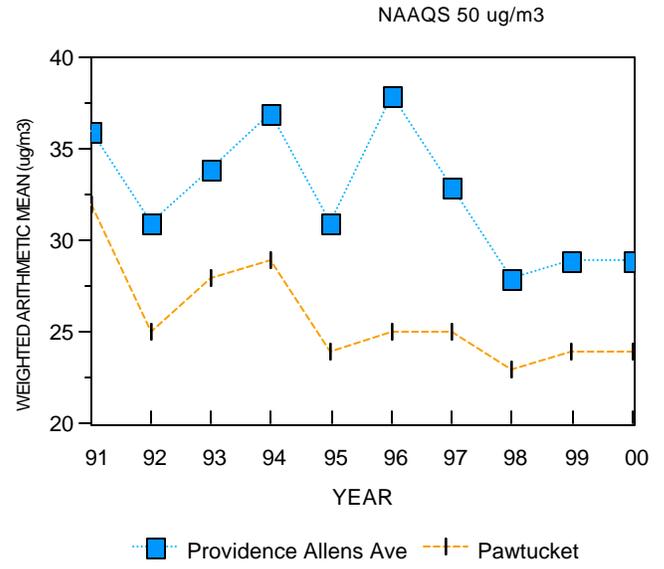
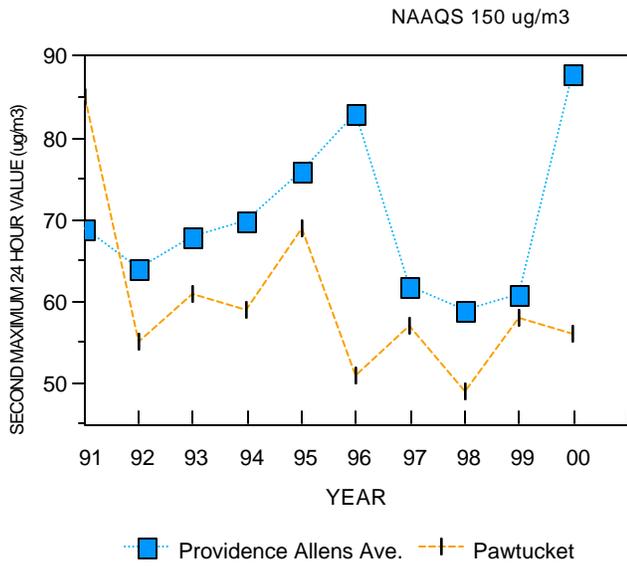
SITE	P O M		CITY	COUNTY	ADDRESS	REP		MAXIMUM VALUES				ARITH				
	C	T				YR	ORG	#OBS	1ST	2ND	3RD	4TH	MEAN	METH	UNITS	SINT
44-003-0002	1	2		KENT	W. ALTON JONES CAMP	00	001	113	29.6	25.9	25.8	19.8	8.90	120	105	7
44-007-0020	1	3	PROVIDENCE	PROVIDENCE	ALLENS AVE, PROVIDE	00	001	56	48.1	35.5	27.7	25.4	14.96	120	105	7
44-007-0022	1	2	PROVIDENCE	PROVIDENCE	212 PRAIRIE AVE, PR	00	001	312	34.1	34.0	33.4	29.8	10.86	120	105	7
44-007-0022	2	3	PROVIDENCE	PROVIDENCE	212 PRAIRIE AVE, PR	00	001	57	39.9	34.0	27.0	22.7	12.59	120	105	7
44-007-0023	1	2	PROVIDENCE	PROVIDENCE	CHEPACHET FIRE STAT	00	001	116	30.5	22.8	22.4	22.2	10.11	120	105	7
44-007-1005	1	2	PAWTUCKET	PROVIDENCE	SUMMIT STREET SAMPL	00	001	109	44.2	35.6	29.8	26.1	12.42	120	105	7
44-007-1010	1	2	EAST PROVIDENCE	PROVIDENCE	FRANCIS SCHOOL, 64	00	001	315	38.6	35.0	31.4	31.1	10.40	120	105	7
44-007-1010	2	3	EAST PROVIDENCE	PROVIDENCE	FRANCIS SCHOOL, 64	00	001	59	39.4	29.6	23.8	22.3	11.56	120	105	7
44-009-0007	1	2	NARRAGANSETT	WASHINGTON	TARWELL ROAD, NARRA	00	001	114	29.6	27.1	20.8	20.3	8.83	120	105	7

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

EXCEPTIONAL EVENT DATA EXISTS IN AT LEAST ONE OF THE ABOVE SITES BUT IS NOT INCLUDED IN THE SUMMARY CALCULATIONS

Please Note: in the calculation of PM2.5 summary statistics data points with data qualifiers were used.  
A list and discussion of data qualifiers for PM2.5 data is presented on Page 8.

# RHODE ISLAND PM10

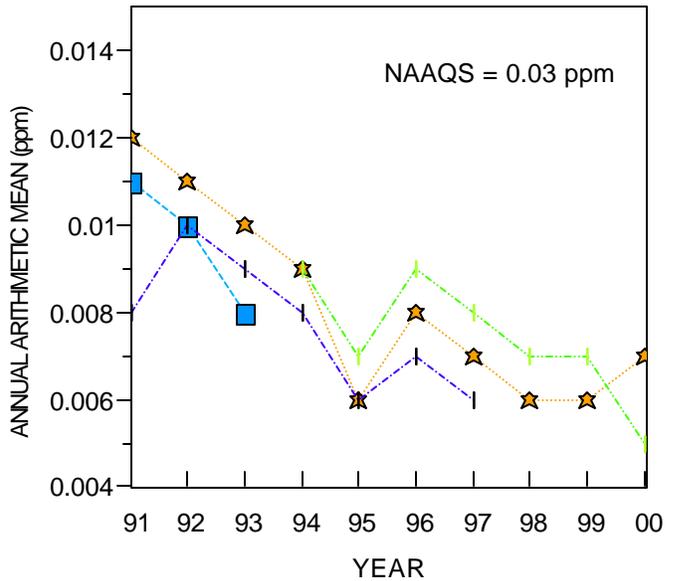
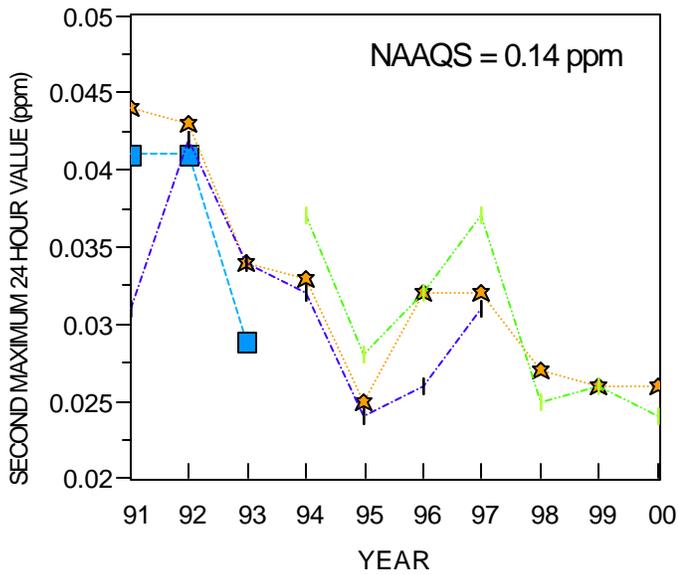


RHODE ISLAND  
PM10 TOTAL 0-10UM - 81102 UNITS-001 UG/CU METER(25 C)

SITE ID	P O M C T	CITY	COUNTY	ADDRESS	SCHEDULED										WTD			
					REP YR	NUM ORG	NUM OBS	% OBS	NUM REQ	***MAXIMUM VALUES***				VALS > 150	ARITH MEAN	METH		
44-003-0002	1 2		KENT	W. ALTON JONES CAMPUS	00	001	60	60	94	64	33	26	24	23	0	0	12	64
44-007-0020	1 1	PROVIDENCE	PROVIDENCE	ALLENS AVE, PROVIDENC	00	001	59	59	92	64	89	88	52	52	0	0	29	64
44-007-0020	2 3	PROVIDENCE	PROVIDENCE	ALLENS AVE, PROVIDENC	00	001	55	55	86	32	94	91	53	49	0	0	29	64
44-007-0021	1 2	PROVIDENCE	PROVIDENCE	111 FOUNTAIN ST	00	001	59	59	92	64	49	46	40	32	0	0	21	64
44-007-0021	2 2	PROVIDENCE	PROVIDENCE	111 FOUNTAIN ST	00	001	58	58	91	64	67	57	46	41	0	0	22	64
44-007-1005	1 1	PAWTUCKET	PROVIDENCE	SUMMIT STREET SAMPLIN	00	001	60	60	94	64	80	56	52	43	0	0	24	64

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

# RHODE ISLAND SULFUR DIOXIDE



- Providence DOH
- ★ Providence Dorrance St.
- + Pawtucket
- + Providence Rockefeller Lib.

- Providence DOH
- ★ Providence Dorrance St.
- + Pawtucket
- + Providence Rockefeller Lib.

RHODE ISLAND  
SULFUR DIOXIDE 42401 UNITS:007 PPM

SITE ID	P O C	M T CITY	COUNTY	ADDRESS	REP YR	ORG	#OBS	MAX 24-HR		OBS > STD		MAX 3-HR		OBS > STD		MAX 1-HR		ARIT MEAN	METH
								1ST	2ND	1ST	2ND	1ST	2ND	1ST	2ND				
44-007-0012	2	1	PROVIDENCE	PROVIDENCE	ROCKEFELLER LIBRA	00	001	8308	0.026	0.026	0	0.047	0.046	0	0.054	0.054	0.007	23	
44-007-1009	1	1	PROVIDENCE	PROVIDENCE	76 DORRANCE STREE	00	001	8384	0.024	0.024	0	0.047	0.045	0	0.060	0.057	0.005	23	

## VERMONT SUMMARY

During 2000 Vermont operated carbon monoxide (CO) sites in Rutland and Burlington. No exceedance of the NAAQS for CO was recorded at either site. The highest first and second maximum 8-hour concentrations of CO were recorded at Rutland (2.7 ppm CO and 2.5 ppm CO, respectively). The ten-year trend lines show a continuing decline of CO levels.

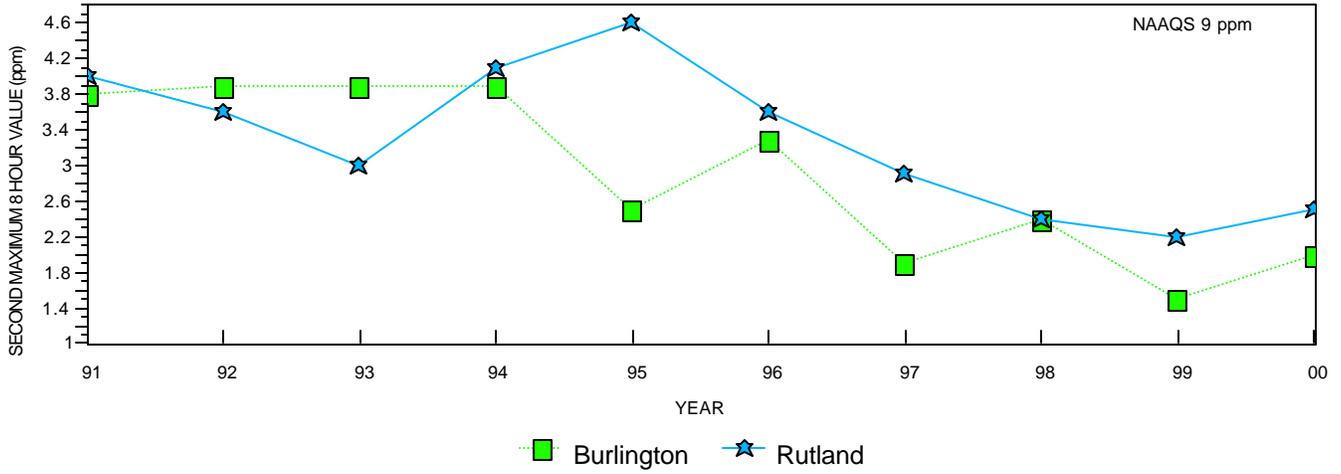
During 2000, Vermont was not required to measure the concentration of lead in ambient air and therefore, no data are available. Vermont operated two nitrogen dioxide (NO<sub>2</sub>) monitoring sites, one in Rutland and the other in Burlington. No exceedance of the NAAQS for NO<sub>2</sub> was recorded at either site. Historical data for the most recent ten years (1991-2000) indicate that the annual average concentrations of NO<sub>2</sub> have remained relatively stable. The Rutland site ranged from 0.011 ppm NO<sub>2</sub> to 0.015 ppm NO<sub>2</sub>, and the Burlington site ranged from 0.016 ppm to 0.018 ppm NO<sub>2</sub>. The maximum one-hour concentration of 0.070 ppm NO<sub>2</sub> was recorded at the Rutland monitoring site.

Neither of the two ozone monitoring sites in Vermont recorded 1-hour concentrations of ozone in excess of the NAAQS. The highest 1-hour concentration of ozone, 0.095 ppm was recorded at the Bennington site. The highest recorded 1-hour concentration of ozone at the Proctor Maple Research site was 0.084 ppm. Vermont has recorded only one exceedance of the 1-hour ozone standard since 1988. For the 8-hour ozone standard in 2000, neither of the two O<sub>3</sub> sites reported a fourth high day of at least 85 ppb. The maximum 8-hour average in 2000 was in Bennington at 0.091 ppm.

Vermont maintained six monitoring sites that measure particulate matter (PM<sub>10</sub>). The highest 24-hour concentration was recorded at the Bennington site (44 ug/m<sup>3</sup>). The Rutland site recorded the highest annual average (weighted) concentration of all Vermont sites, 18 ug/m<sup>3</sup>. This concentration is well below the annual average NAAQS for PM<sub>10</sub> that is 50 ug/m<sup>3</sup>. The lowest recorded measurements for PM<sub>10</sub> were recorded at the Proctor Maple Research facility monitoring site. At this site the second maximum 24-hour concentration was 20 ug/m<sup>3</sup> and the annual weighted arithmetic mean was 12 ug/m<sup>3</sup>. Over the past ten years, all five PM<sub>10</sub> monitoring sites have recorded particulate matter concentrations well below the annual and the 24-hour NAAQS with a slight downward trend. Yearly variability in the data is common. This variability is due to changes in meteorology, transport of particulate matter from distant sources, and changes in the emissions of local sources. For PM<sub>2.5</sub> Vermont established a network of 5 stations, which began operation in 1999. In general the Rutland and Barre areas reported the highest PM<sub>2.5</sub> concentrations.

The monitoring sites at Burlington and Rutland also measure sulfur dioxide (SO<sub>2</sub>). No exceedance or violation of the NAAQS for sulfur dioxide was recorded at either site. The highest 24-hour average concentration of SO<sub>2</sub> (35 ppb) was recorded at the Rutland site. This site also recorded the highest 3-hour SO<sub>2</sub> concentration, 71 ppb. In contrast, the Burlington site recorded a maximum 24-hour average concentration of 9 ppb and a 3-hour maximum concentration of 12 ppb SO<sub>2</sub>. Ten years (1991 - 2000) of historical SO<sub>2</sub> data indicate a general decline in SO<sub>2</sub> concentrations in Burlington, but show a one year (1994) spike in SO<sub>2</sub> concentrations in Rutland.

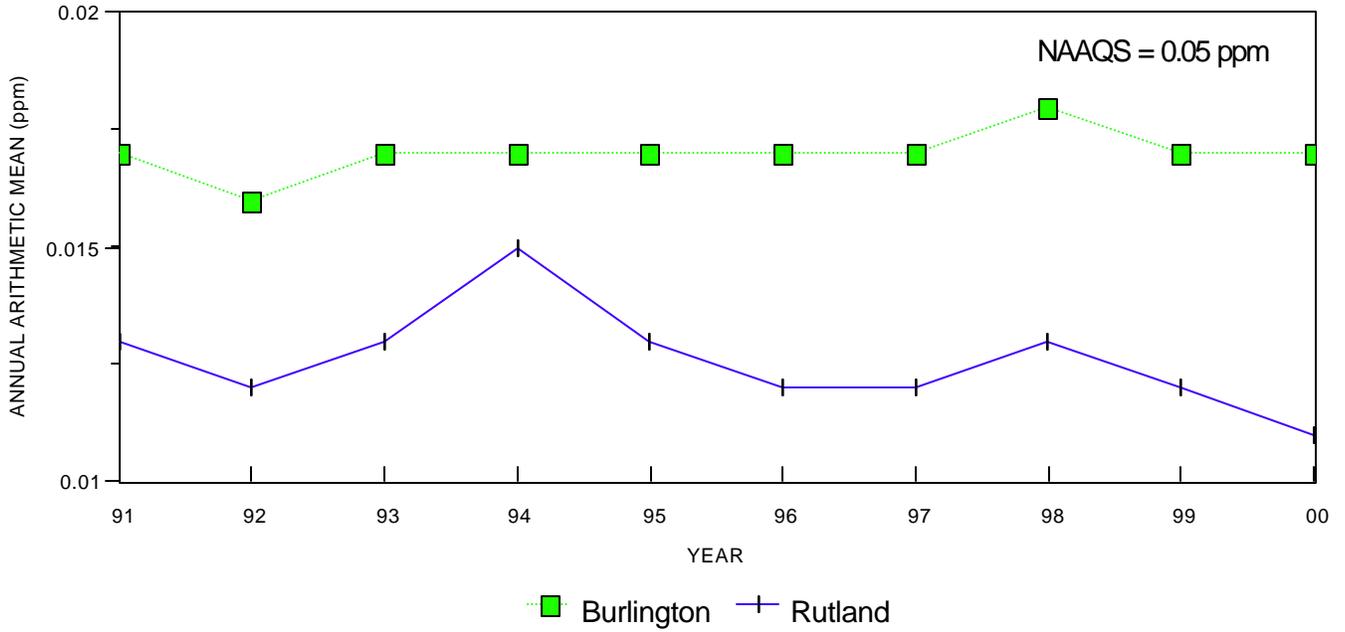
# VERMONT CARBON MONOXIDE



Carbon Monoxide - Vermont

SITE ID	P		CITY	COUNTY	ADDRESS	REP YR	ORG	#OBS	MAX 1ST	1-HR 2ND	OBSMAX 35 1ST	8-HR 2ND	OBS> 9 METH	
	C	T												
50-007-0003	1	2	BURLINGTON	CHITTENDEN	ADJ. TO 82 S. WINOOSKI A	00	001	3807	4.3	3.3	0	2.4	2.0	0 67
50-021-0002	1	2	RUTLAND	RUTLAND	PARKING LOT ADJ. TO 9 ME	00	001	7931	5.0	4.1	0	2.7	2.5	0 67

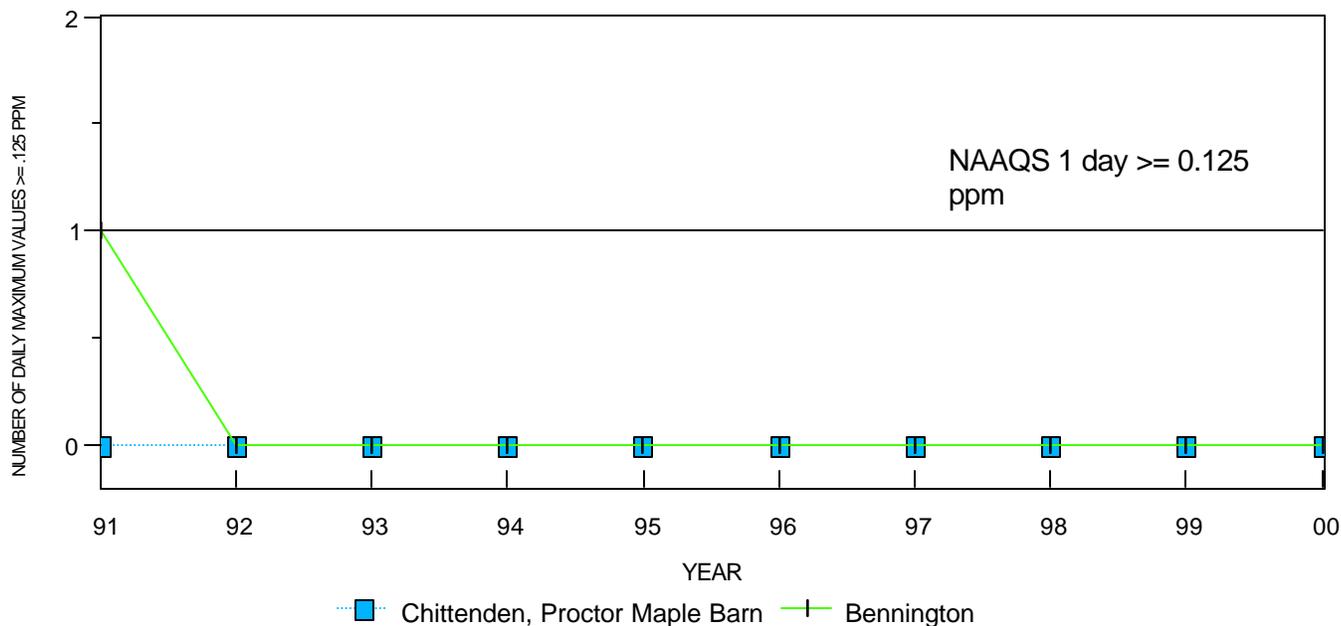
# VERMONT NITROGEN DIOXIDE



NITROGEN DIOXIDE (NO2) UNITS: 007 PPM

P	O	M	C	T	CITY	COUNTY	ADDRESS	REP	MAX	1-HR	MAX	24-HR	ARIT			
								YR	ORG	#OBS	1ST	2ND	1ST	2ND	MEAN	METH
1	2				BURLINGTON	CHITTENDEN	ADJ. TO 82 S. WINOOSKI AVE	00	001	3828	0.07	0.062			0.017	? 74
1	2				RUTLAND	RUTLAND	PARKING LOT ADJ. TO 9 MERC	00	001	8021	0.056	0.054			0.011	74

# VERMONT OZONE



VERMONT  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

SITE ID	P O M C T CITY	COUNTY	ADDRESS	YR	REP ORG	NUM MEAS	NUM REQ	VALID DAILY 1-HR MAXIMUM *****MAXIMA*****				VALS>0.125		MISS DAYS ASSUMED <	
								1ST	2ND	3RD	4TH	MEAS	EST	STANDARD	METH
50-003-0004	1 2 BENNINGTON	BENNINGTON	AIRPORT RD, BENN	00	001	173	183	0.095	0.089	0.083	0.074	0	0	4	87
50-007-0007	1 2	CHITTENDEN	PROCTOR MAPLE RE	00	001	166	183	0.084	0.080	0.076	0.076	0	0	3	87

VERMONT  
OZONE - 44201 UNITS:007 PPM  
OZONE SEASON: APR01 TO SEP 30

AIRS Site No	State	Location	County	yr	1st Max 8-Hour	2d Max 8-Hour	3d Max 8-Hour	4th max 8-Hour	Days >0.08
50-003-0004	VT	BENNINGTON	BENNINGTON CO	00	0.091	0.074	0.073	0.071	1
50-007-0007	VT	NOT IN A CITY	CHITTENDEN CO	00	0.080	0.074	0.072	0.071	0

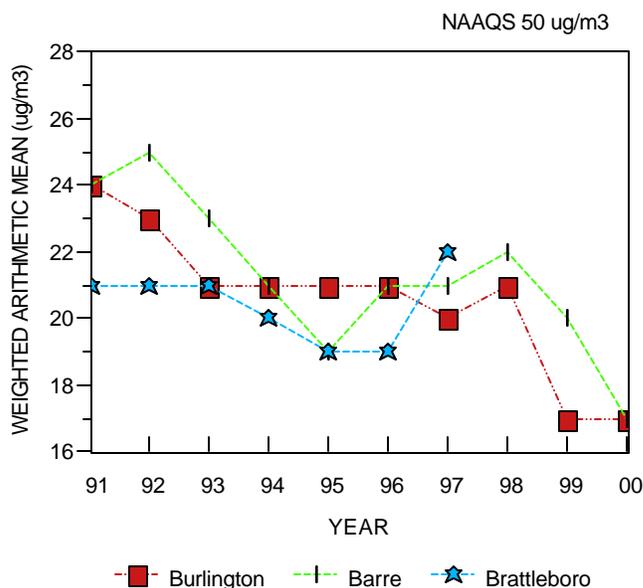
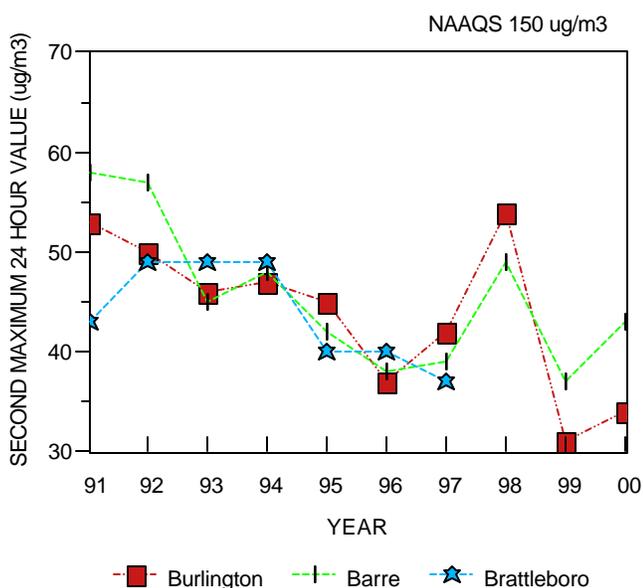
# PM 2.5 Vermont

PM2.5 LOCAL CONDITIONS (88101) VERMONT

SITE	P O M C T CITY	COUNTY	ADDRESS	REP		#OBS	MAXIMUMVALUES				ARITH		METH	NITS	INT
				YR	ORG		1ST	2ND	3RD	4TH	MEAN				
50-003-0005	1 2	BENNINGTON	BRADFORD STREET BEN	00	001	118	25.5	25.5	23.2	21.8	9.46	118	105	7	
50-007-0007	1 2		PROCTOR MAPLE RESEA	00	001	108	21.5	19.7	16.0	13.7	5.89	118	105	7	
50-007-0012	1 3	BURLINGTON	108 CHERRY STREET,	00	001	116	33.6	23.4	22.7	18.7	8.29	118	105	7	
50-007-0012	2 3	BURLINGTON	108 CHERRY STREET,	00	001	97	32.7	22.7	22.5	18.9	8.06	118	105	7	
50-021-0002	1 2	RUTLAND	PARKING LOT ADJ. TO	00	001	114	43.5	32.8	31.0	29.9	11.15	118	105	7	
50-023-0005	1 3	BARRE	MERCHANTS ROW, BARR	00	001	112	43.6	24.3	24.2	23.5	10.09	118	105	7	

? INDICATES THAT THE MEAN DOES NOT SATISFY SUMMARY CRITERIA

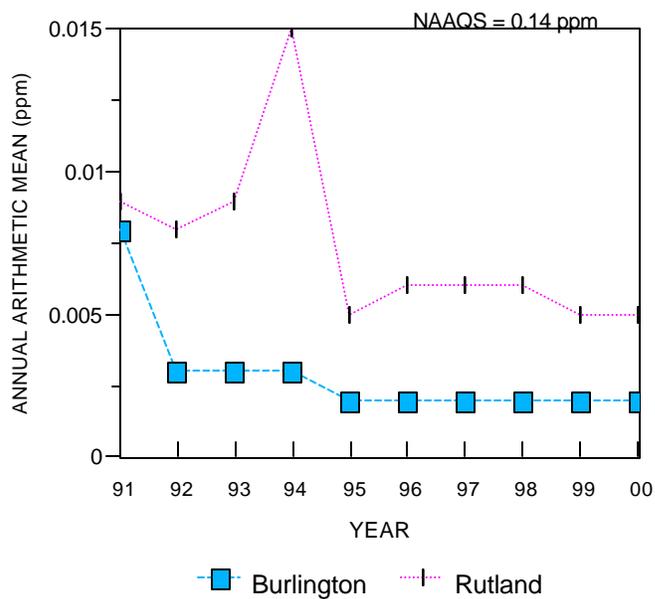
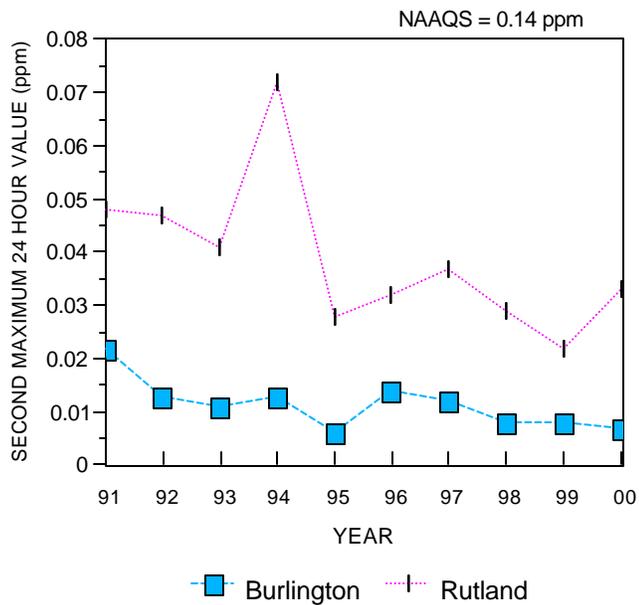
# VERMONT PM10



VERMONT  
PM10 TOTAL 0-10UM - 81102 UNITS-001 UG/CU METER(25 C)

SITE ID	P O M C	T CITY	COUNTY	ADDRESS	REP YR	NUM ORG	SCHEDULED				***MAXIMUM VALUES***				WTD				
							NUM OBS	% OBS	NUM REQ	1ST	2ND	3RD	4TH	MEAS	EST	ARITH MEAN	METH		
50-003-0005	1	2	BENNINGTON	BENNINGTON	BRADFORD STREET BENNI	00	001	60	60	94	64	31	28	27	26	0	0	15	62
50-007-0003	1	1	BURLINGTON	CHITTENDEN	ADJ. TO 82 S. WINOOSK	00	001	27	27	84	32	34	34	34	22	0	0	17	62
50-007-0003	2	3	BURLINGTON	CHITTENDEN	ADJ. TO 82 S. WINOOSK	00	001	26	26	81	32	34	33	30	23	0	0	17	62
50-007-0007	1	2	CHITTENDEN	CHITTENDEN	PROCTOR MAPLE RESEARC	00	001	60	60	94	64	22	20	19	17	0	0	8	62
50-007-0012	1	2	BURLINGTON	CHITTENDEN	108 CHERRY STREET, BU	00	001	58	58	91	64	33	28	22	19	0	0	12	62
50-021-0002	1	2	RUTLAND	RUTLAND	PARKING LOT ADJ. TO 9	00	001	56	56	88	64	43	42	39	31	0	0	18	62
50-023-0005	1	2	BARRE	WASHINGTON	MERCHANTS ROW, BARRE	00	001	60	60	94	64	44	43	33	29	0	0	17	62
50-023-0005	2	2	BARRE	WASHINGTON	MERCHANTS ROW, BARRE	00	001	27	27	93	29	41	33	25	21	0	0	15	62

# VERMONT SULFUR DIOXIDE

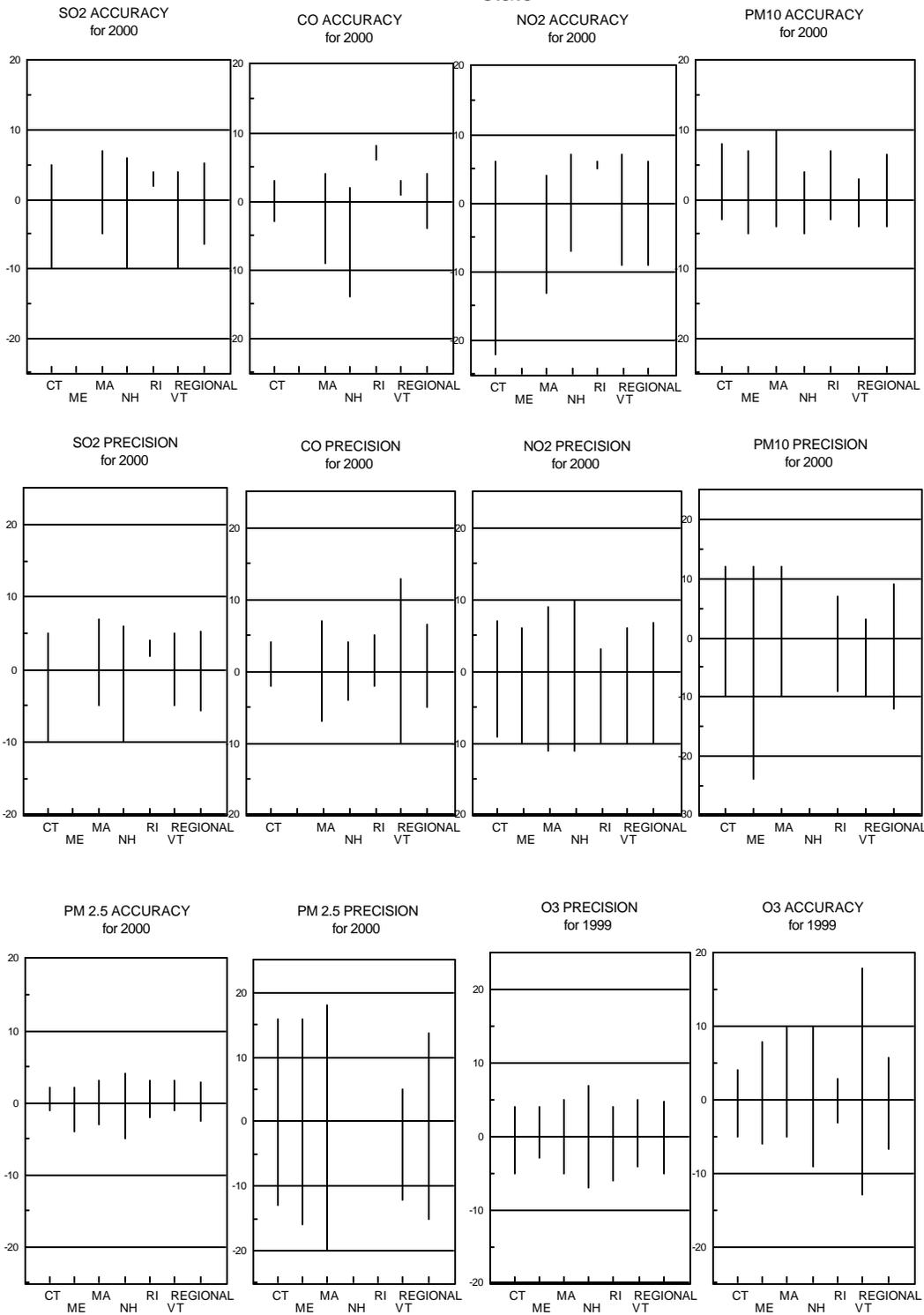


VERMONT  
SULFUR DIOXIDE 42401 UNITS:007 PPM

SITE ID	P O M C	T CITY	COUNTY	ADDRESS	YR	REP ORG	#OBS	MAX 24-HR		OBS >		MAX 3-HR		OBS >		MAX 1-HR	ARIT MEAN	METH
								1ST	2ND	1ST	2ND	1ST	2ND					
50-007-0003	1	1 BURLINGTON	CHITTENDEN	ADJ. TO 82 S. WIN	0	1	3834	0.009	0.007	0	0.012	0.011	0	0.023	0.017	0.002 ?	60	
50-021-0002	1	2 RUTLAND	RUTLAND	PARKING LOT ADJ.	0	1	8019	0.035	0.033	0	0.071	0.071	0	0.089	0.079	0.005	60	

# Precision and accuracy data submitted by the States

The 95% Probability limit for six criteria pollutants are given as a network average for each state



# EPA Region I

## Non-Attainment Designations

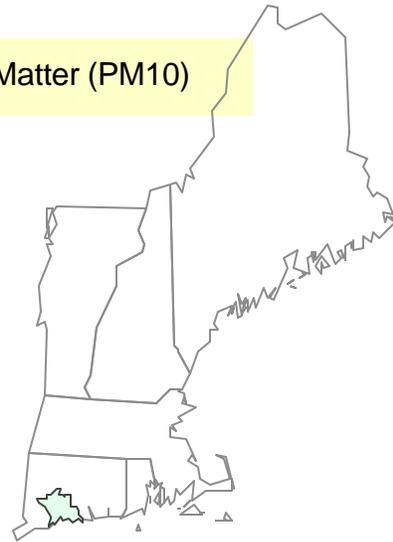
as of June 2001

### Carbon Monoxide



Nonattainment Status:  
 Part of County   
 Whole County   
 Attainment

### Particulate Matter (PM10)



Nonattainment Status:  
 Part of County   
 Whole County   
 Attainment

### Ozone



Nonattainment Status:  
 Part of County   
 Whole County   
 Attainment

## AIRS-AQ REGIONAL CONTACTS

- Region I: Ms. Wendy McDougall  
EPA, Region I  
60 Westview Street  
Lexington, MA 02421  
(781) 860-4323  
[McDougall.Wendy@EPAMAIL.EPA.GOV](mailto:McDougall.Wendy@EPAMAIL.EPA.GOV)
- Connecticut: Mr. Victor Yanosy  
Department of Environmental Protection  
Air Monitoring Section  
79 Elm Street  
Hartford, CT 06106  
(860) 424-3524  
[victor.yanosy@po.state.ct.us](mailto:victor.yanosy@po.state.ct.us)
- Maine: Mr. Jeff Emery  
Department of Environmental Protection  
State House Station 17  
Augusta, ME 04333  
(207) 287-2437  
[Jeff.Emery@state.me.us](mailto:Jeff.Emery@state.me.us)
- Massachusetts: Ms. Ann Sorensen  
Department of Environmental Protection  
Division of Air Quality Control  
Wall Experiment Station  
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