



2001 Air Quality Index Summary

New Jersey Department of Environmental Protection

WHAT IS THE AIR QUALITY INDEX (AQI)?

The Air Quality Index (AQI) is a national air quality rating system based on the National Ambient Air Quality Standards (NAAQS). Generally, an index value of 100 is equal to the primary, or health based, NAAQS for each pollutant. This allows for a direct comparison of each of the pollutants used in the AQI (carbon monoxide, nitrogen dioxide, particulate matter, ozone, and sulfur dioxide). The AQI rating for a reporting region is equal to the highest rating recorded for any pollutant within that region. In an effort to make the AQI easier to understand, a descriptive rating, and a color code, based on the numerical rating are used (see Table 1).

For more information on the AQI, visit EPA's web site at www.epa.gov/airnow/aqibroch.

Table 1
Air Quality Index

Numerical AQI Rating	Descriptive Rating	AQI Color Code
0-50	Good	Green
51-100	Moderate	Yellow
101-150	Unhealthy for Sensitive Groups	Orange
151-200	Unhealthy	Red
200-300	Very Unhealthy	Purple

Each weekday morning an air quality summary for the previous day, and a forecast are prepared using the AQI format. These are provided to the Associated Press wire service, the New York Times, and to participating radio and television stations. Each afternoon, an air quality update, which includes the current air quality information and a forecast for the following day, is issued to various newspapers. An extended forecast consisting of the

expected descriptor ratings over the next 72-hour period is also provided for each reporting region on weekdays. A telephone recording of the AQI forecast is taped by 11 a.m., Monday-Friday, and can be heard by dialing **1-800-782-0160**.

For purposes of reporting the AQI, the state is divided into 9 regions (see Figure 1). Table 2 shows the monitoring sites and parameters used in each reporting region to calculate the AQI values.

Figure 1
Air Quality Index Regions

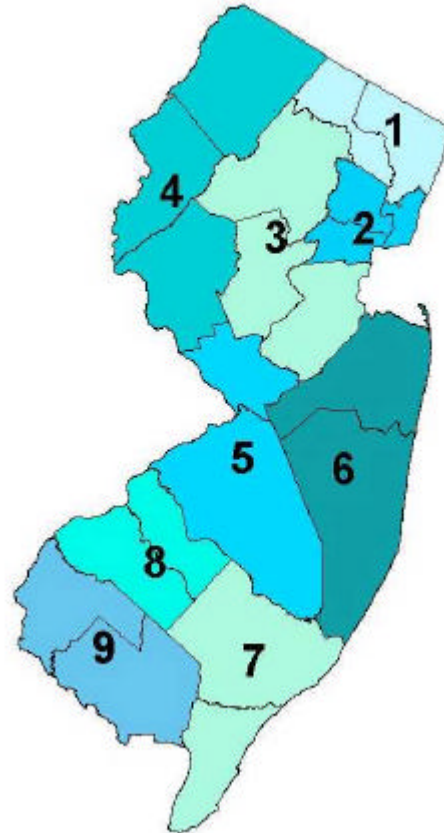


Table 2
Pollutants Monitored According to Air Quality Index Reporting Region

CO - Carbon Monoxide **O3** - Ozone
SO2 - Sulfur Dioxide **NO2** - Nitrogen Dioxide
PM - Particulate Matter

Reporting Region	Monitoring Site	CO	SO ₂	PM	O ₃	NO ₂
1. Northern Metropolitan	Fort Lee	X	---	X	---	---
	Hackensack	X	X	X	---	---
	Ramapo	---	---	---	X	---
	Teaneck	---	---	---	X	X
2. Southern Metropolitan	Bayonne	---	X	---	X	X
	East Orange	X	---	---	---	X
	Elizabeth	X	X	X	----	---
	Elizabeth Lab	X	X	X	---	X
	Jersey City	X	X	X	---	---
	Newark	X	X	X	X	X
	North Bergen	X	---	---	---	---
3. Suburban	Chester	---	X	---	X	X
	Middlesex	X	---	---	---	---
	Morristown	X	---	X	---	---
	New Brunswick	---	---	X	---	---
	Perth Amboy	X	X	X	---	---
	Rutgers University	---	---	---	X	X
4. Northern Delaware Valley	Flemington	---	---	X	X	---
5. Central Delaware Valley	Burlington	X	X	X	---	---
	Rider University	---	---	---	X	X
6. Northern Coastal	Colliers Mills	---	---	---	X	---
	Freehold	X	---	X	---	---
	Monmouth University	---	---	---	X	---
7. Southern Coastal	Nacote Creek R. S.	---	X	---	X	---
	Somers Point	---	X	---	---	X
8. Southern Delaware Valley	Ancora S. H.	X	X	X	X	---
	Camden Lab	X	X	X	X	X
	Clarksboro	---	X	---	X	---
9. Delaware Bay	Millville	---	X	---	X	X

Along with the forecast, cautionary statements are provided for days when the air quality is expected to be unhealthy. A weekday ozone forecast map, introduced during the 1996 ozone season, is televised on New Jersey Network's (NJN) TV News Broadcast. After the ozone season, an air quality forecast map is substituted. A web page was also created in 1996 to show current air quality levels. This page can be accessed at the following internet address: <http://www.state.nj.us/dep/airmon>. Some examples of the air quality information available on our web site are shown below:

Figure 2
Examples of NJDEP's Air Monitoring Website

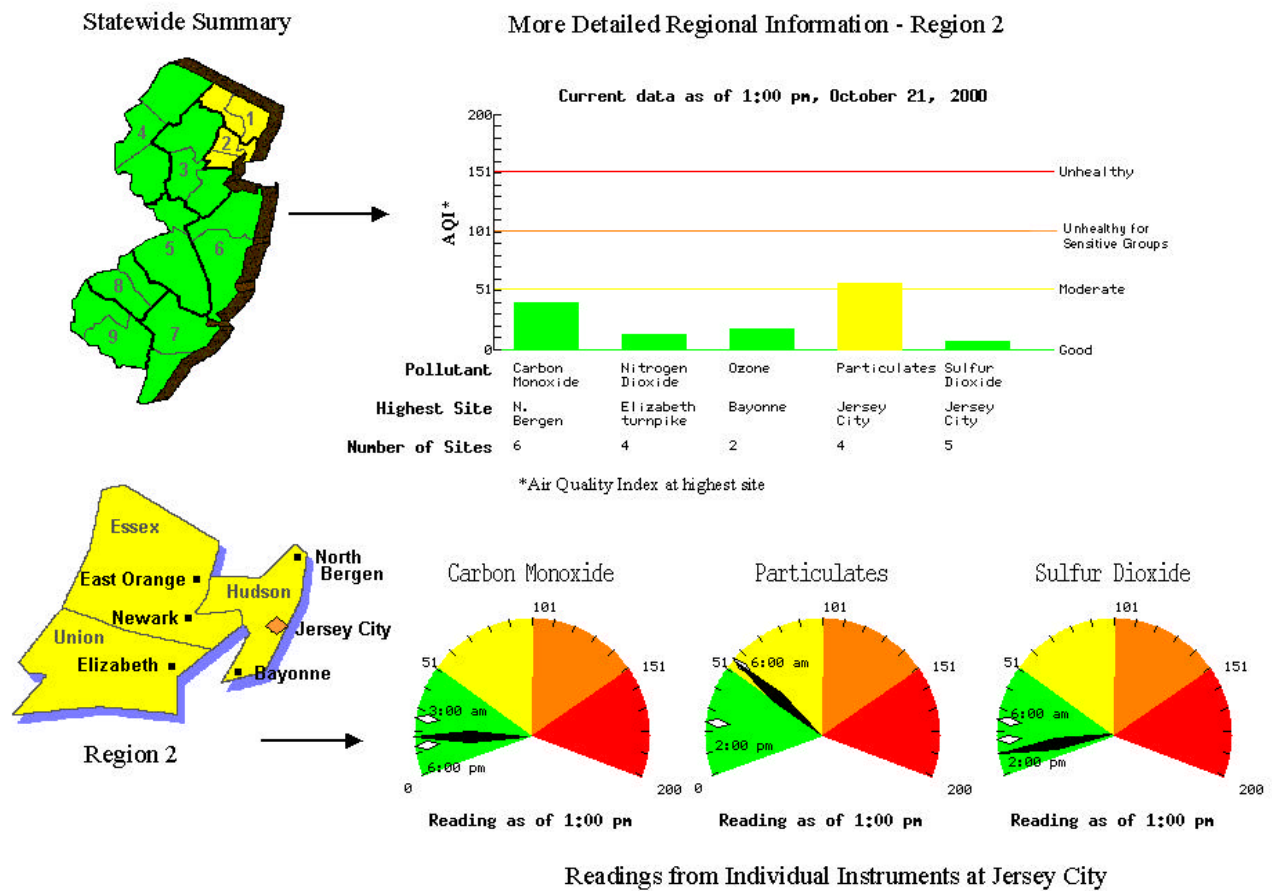
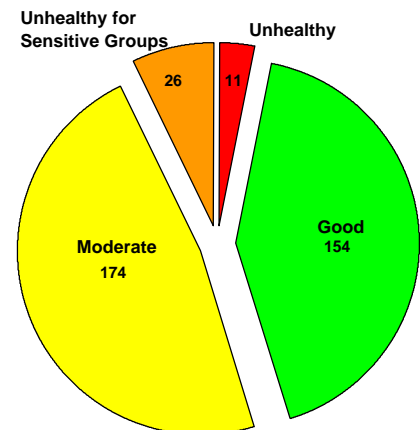


Figure 3
Air Quality Summary by Days

2001 AQI SUMMARY

A summary of the AQI ratings for New Jersey in 2001 is presented in the pie chart to the right. In 2001 there were 154 "Good" days, 174 were "Moderate", 26 were rated "Unhealthy for Sensitive Groups", 11 were considered "Unhealthy", and none were rated "Very Unhealthy". This indicates that air quality in New Jersey is considered good or moderate most of the time, but that pollution is still bad enough to adversely affect some people on about one day in ten. Table 3 lists the dates when the AQI exceeded the "Unhealthy for Sensitive Groups" threshold at any monitoring location and shows which pollutant(s) were in that range or higher. The map that follows shows the AQI ratings for the year broken down by AQI region.



**Table 3
Air Quality Index (AQI) Exceedances of 100 During 2001**

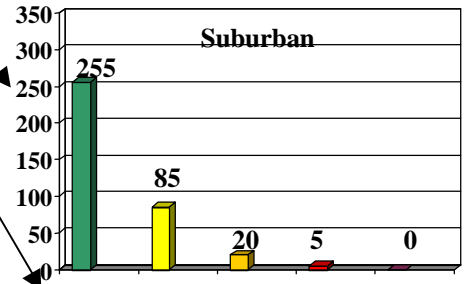
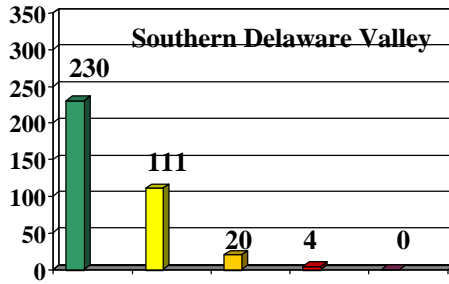
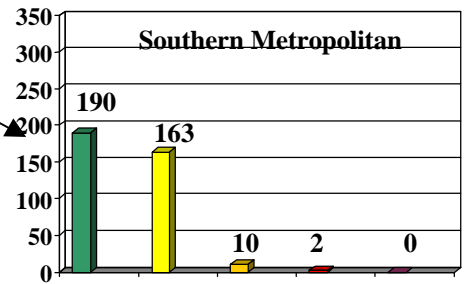
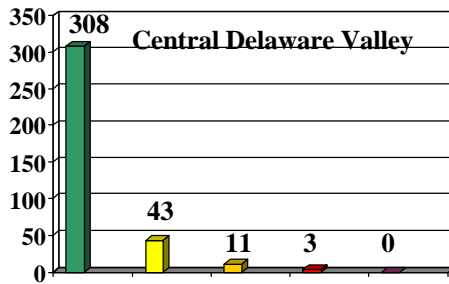
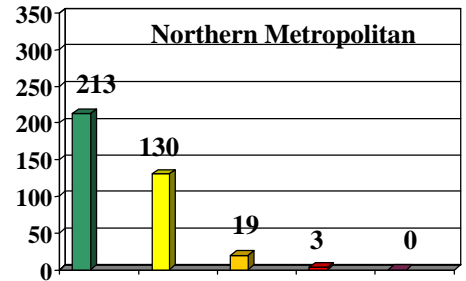
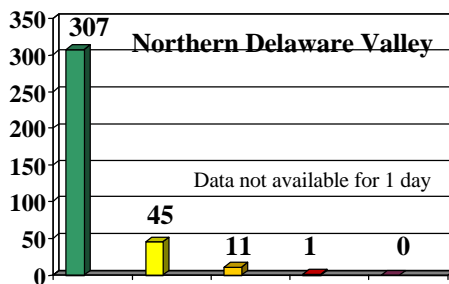
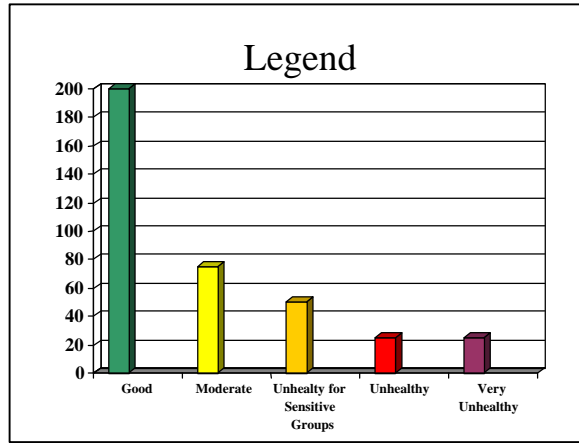
	<u>Ratings</u>		<u>Pollutants</u>
USG	- Unhealthy for Sensitive Groups	PM	- Fine Particle Matter
UH	- Unhealthy	O3	- Ozone
VUH	- Very Unhealthy		

Date	Highest Location	Highest AQI Value	Highest Pollutant	Highest Rating	Pollutant(s) with AQI above 100 *	
May 1	Colliers Mills	106	O ₃	USG	O ₃ (1)	
May 2	Colliers Mills	127	O ₃	USG	O ₃ (7)	
May 3	Colliers Mills	161	O ₃	UH	O ₃ (1)	PM(2)
May 4	Colliers Mills	159	O ₃	UH	O ₃ (10)	PM(2)
May 10	Colliers Mills	101	O ₃	USG	O ₃ (1)	
May 11	Rutgers University		O ₃	USG	O ₃ (9)	
June 11	Fort Lee	110	PM	USG	O ₃ (2)	PM(1)
June 12	Ancora S.H.	119	O ₃	USG	O ₃ (5)	
June 13	Chester	156	O ₃	UH	O ₃ (8)	PM(4)
June 14	Fort Lee	126	PM	USG		PM(3)
June 19	Rutgers University	190	O ₃	UH	O ₃ (11)	
June 20	Rutgers Univ./Teaneck	161	O ₃	UH	O ₃ (10)	PM(1)
June 26	Ancora S.H.	135	O ₃	USG	O ₃ (4)	
June 27	Ancora S.H.	166	O ₃	UH	O ₃ (8)	
June 28	Ancora S.H.	156	O ₃	UH	O ₃ (8)	PM(3)
June 29	Camden	142	O ₃	USG	O ₃ (5)	PM(1)
June 30	Monmouth University	177	O ₃	UH	O ₃ (7)	PM(4)
July 10	Millville	129	O ₃	USG	O ₃ (4)	
July 17	Millville	150	O ₃	USG	O ₃ (7)	
July 21	Colliers Mills	106	O ₃	USG	O ₃ (6)	
July 22	Teaneck	104	O ₃	USG	O ₃ (1)	
July 23	Rutgers University	127	O ₃	USG	O ₃ (2)	
July 25	Teaneck	132	O ₃	USG	O ₃ (4)	PM(1)
August 1	Colliers Mills	124	O ₃	USG	O ₃ (3)	
August 2	Ramapo/Rutgers Univ.	104	O ₃	USG	O ₃ (2)	
August 3	Rutgers University	106	O ₃	USG	O ₃ (1)	
August 5	Teaneck	119	O ₃	USG	O ₃ (3)	
August 6	Camden	150	O ₃	USG	O ₃ (6)	PM(3)
August 7	Colliers Mills	192	O ₃	UH	O ₃ (15)	PM(2)
August 8	Millville	161	O ₃	UH	O ₃ (9)	PM(1)
August 9	Camden	185	O ₃	UH	O ₃ (14)	PM(2)
August 10	Fort Lee	133	PM	USG	O ₃ (1)	PM(4)
August 19	Ramapo	109	O ₃	USG	O ₃ (4)	
August 23	Fort Lee	108	PM	USG		PM(1)
August 24	Ancora S.H.	101	O ₃	USG	O ₃ (1)	
Sept 7	Ramapo	106	O ₃	USG	O ₃ (2)	
Sept 19	Camden	101	O ₃	USG	O ₃ (1)	

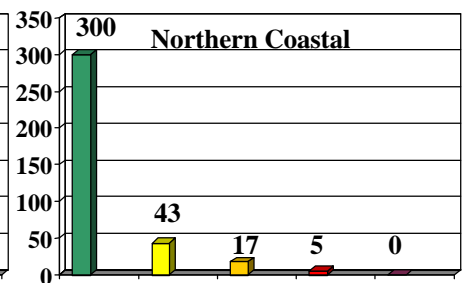
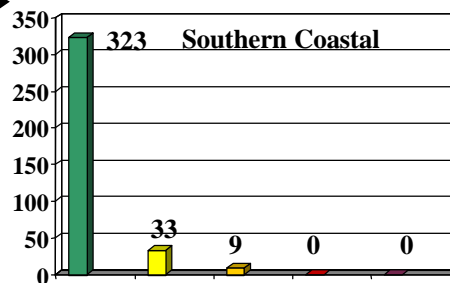
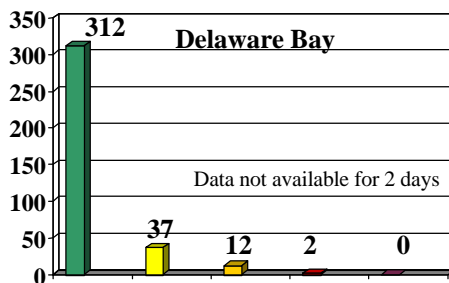
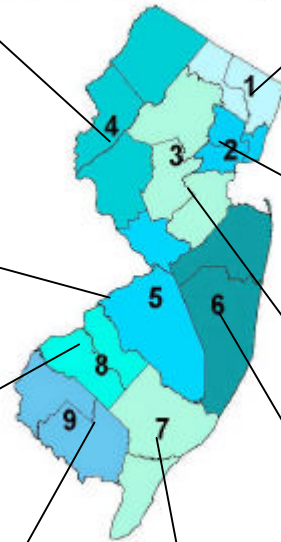
* Number in parentheses () indicates number of monitoring sites exceeding 100 on given day

Figure 4

2001 Air Quality Index Summary
 Number of Days by Reporting Region



Air Quality Index Regions



References

Air Quality Index, A Guide to Air Quality and Your Health, USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC, June 2000, EPA-454/R-00-005, URL: www.epa.gov/airnow/aqi_cl.pdf

Guideline for Reporting of Daily Air Quality, Air Quality Index (AQI), USEPA, Office of Air Quality Planning and Standards, July 1999, EPA-454/R-99-010, URL: www.epa.gov/ttn/oarpg/t1/memoranda/rg701.pdf

Air Quality Index Reporting, Final Rule: Title 40, Part 58, Code of Federal Regulations, August 4, 1999. URL: http://www.epa.gov/ttn/oarpg/t1/fr_notices/airqual.pdf

National Air Quality and Emissions Trend Report, 1999, EPA-454/R-01-004, USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC, March 2001, URL: www.epa.gov/oar/aqtrnd99/

Latest Findings on National Air Quality: 2000 Status and Trends, EPA-454/K-01-002, USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC, September 2001, URL: www.epa.gov/oar/aqtrnd00/