



Exploring the AQI

- The weather forecast is for a maximum temperature of 50°F, light wind, and rain.
What color do you think the AQI is and the related health message might be? Why?

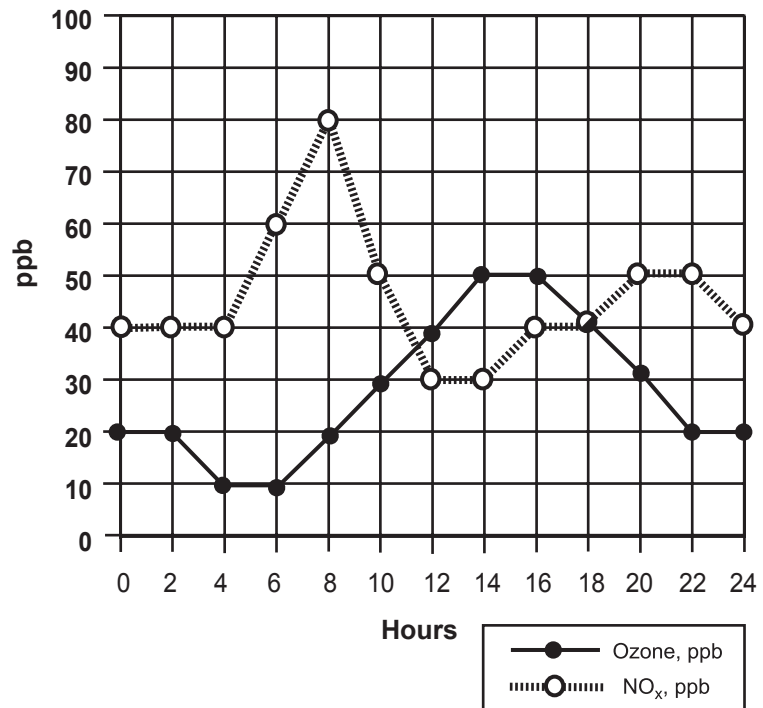
It probably would be green, indicating minimal health effects. The weather conditions are not those that are associated with high pollution levels.

- The weather forecast is for a maximum temperature of 90°F, high pressure, clear skies, and no wind.
What color do you think the AQI is and the related health message might be? Why?

The color would not likely be green. It would more likely be yellow or orange with some health effects for sensitive people and those working or exercising strenuously outside. These conditions are right for formation of ozone.

- Graph the following information about the mean concentration of ozone and NO_x in the Detroit area during April through October, 1998-2002.

	Ozone, ppb	NO _x , ppb
0	20	40
2	20	40
4	10	40
6	10	60
8	20	80
10	30	50
12	40	30
14	50	30
16	50	40
18	40	40
20	30	50
22	20	50
24	20	40



- Describe what happens to ozone levels during a 24-hour period.

They are low in the morning and increase through early afternoon. They decrease in late afternoon.

- Why does NO_x increase in early morning and decrease in late morning?

Emissions of pollutants from the morning traffic can cause NO_x to increase. The NO_x decreases as it is used up in the formation of ozone.