



Annual Air Quality Report

Active Monitoring Summary

There were no major episodes of very poor air quality affecting the borough in 2002. However there were a number of incidents where air quality levels breached the moderate band of the governments' air quality dissemination system.

The two roadside sites (R) reached moderate levels on 72 & 79 days and the Urban Background location (U) reached moderate levels on 72 days.



Public Dissemination Banding				
Number of days that were moderate or above				
Pollutant	Location	Moderate	High	Very High
Nitrogen Dioxide	Palace Road (R)	0	0	0
	Vauxhall Cross (R)	0	0	0
	Loughborough Jnct. (U)	0	0	0
Particulate Matter	Palace Road (R)	72	0	0
	Vauxhall Cross (R)	79	0	0
	Loughborough Jnct. (U).	72	0	0
Sulphur Dioxide	Palace Road (R)	0	0	0
	Vauxhall Cross (R)	0	0	0
	Loughborough Jnct. (U).	0	0	0

Passive Monitoring Summary

Lambeth Council currently monitors the air quality at 15 sites around the borough for nitrogen dioxide, sulphur dioxide and benzene. Two sites additionally monitor the air for ozone levels.

The results for the passive monitoring indicate that

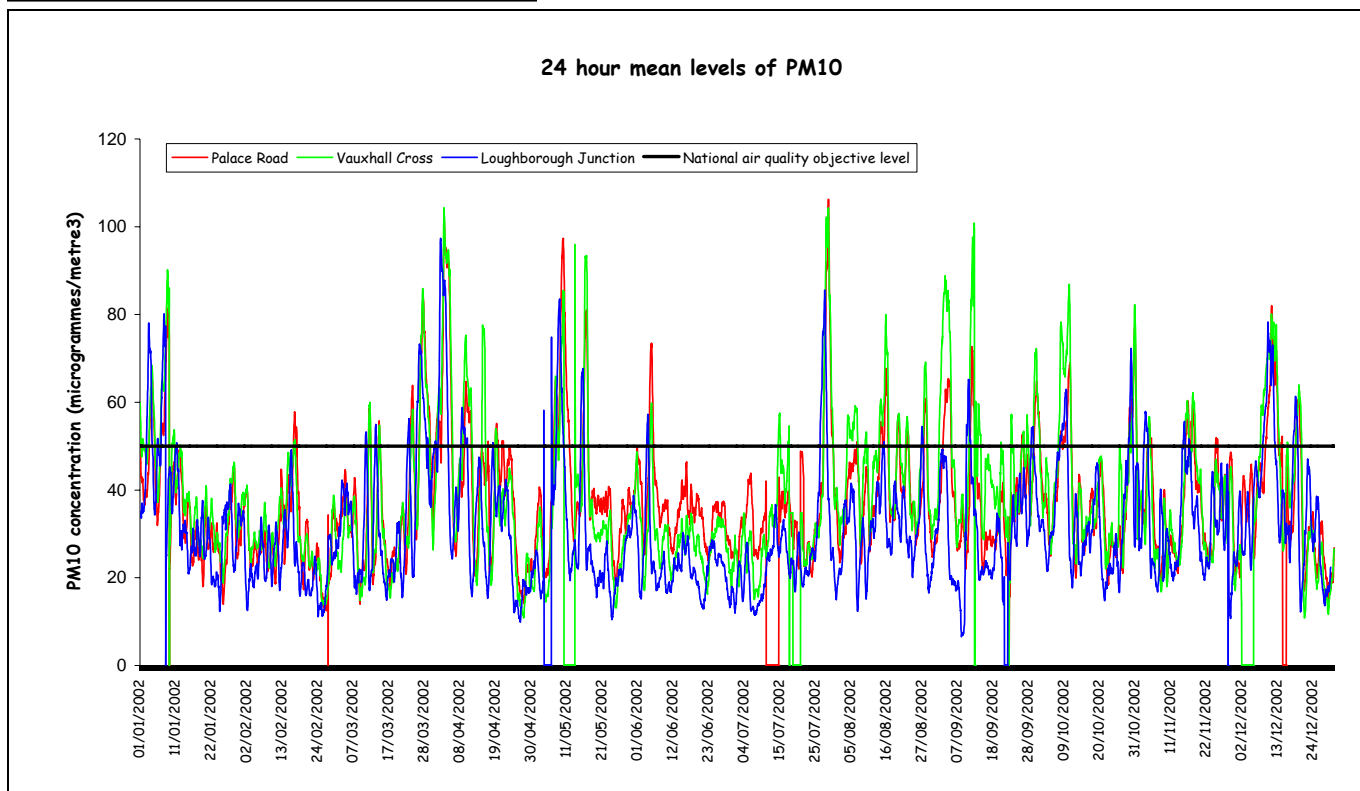
nitrogen dioxide is the pollutant of most concern in the borough. On average over the year Nitrogen dioxide exceeded the government's current objective level at 9 sites. Only 4 sites were lower than the current objective.

Particulate Matter (PM₁₀)

In 2002 average levels of PM₁₀ in the borough were up slightly compared to 1999. The urban background and on roadside site was higher than in 2001, whilst at the other roadside the levels stayed the same. There were a number of hours when PM₁₀ levels showed very high peaks but these were generally short lived. These events are often caused by roadworks.

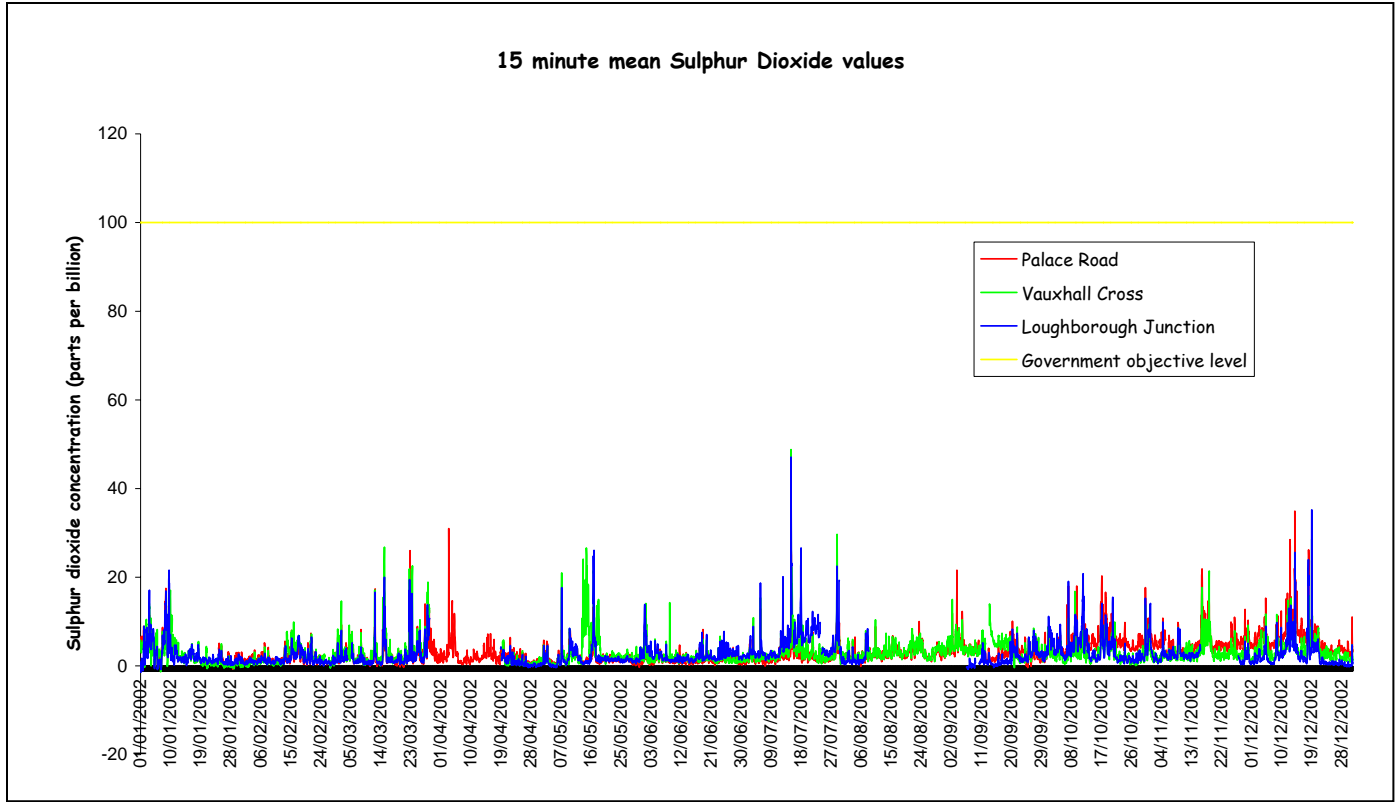
There were exceedences of the daily mean objective at all sites, but only the roadside sites exceeded the government target of less than 35 days where the daily mean is greater than 50 microgrammes per cubic metre.

Continuous monitoring



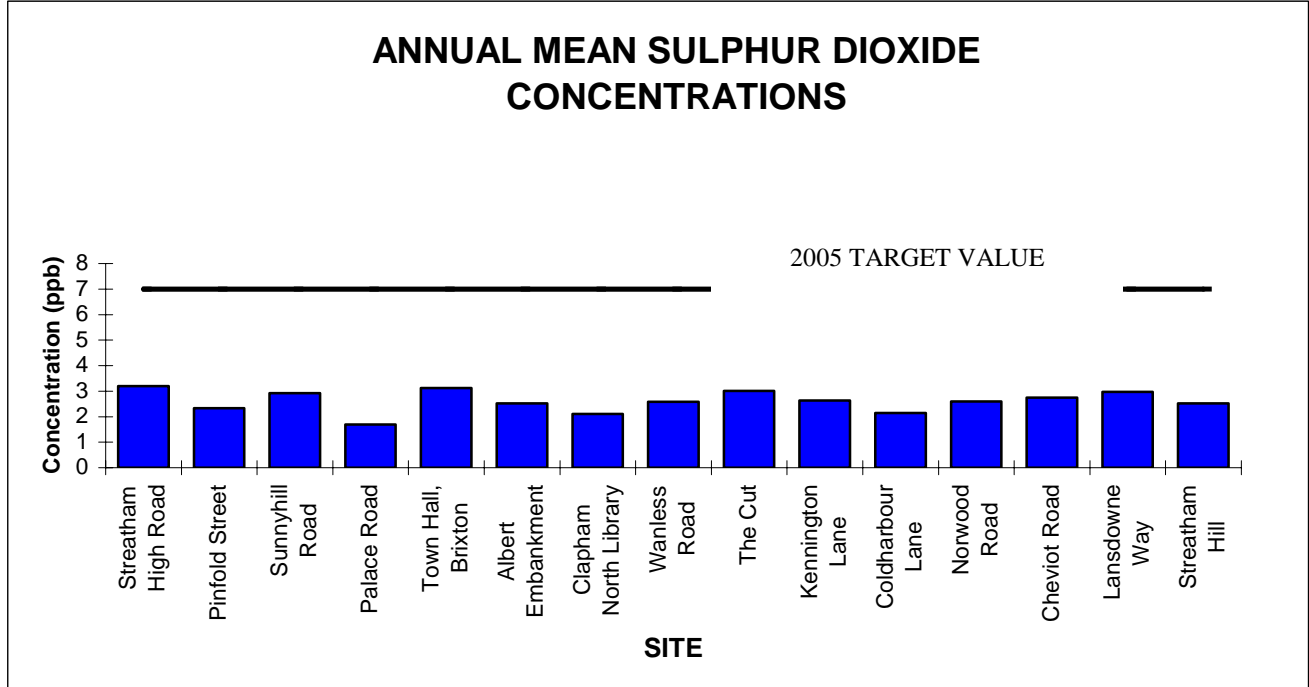
Sulphur Dioxide (SO₂)

Continuous monitoring



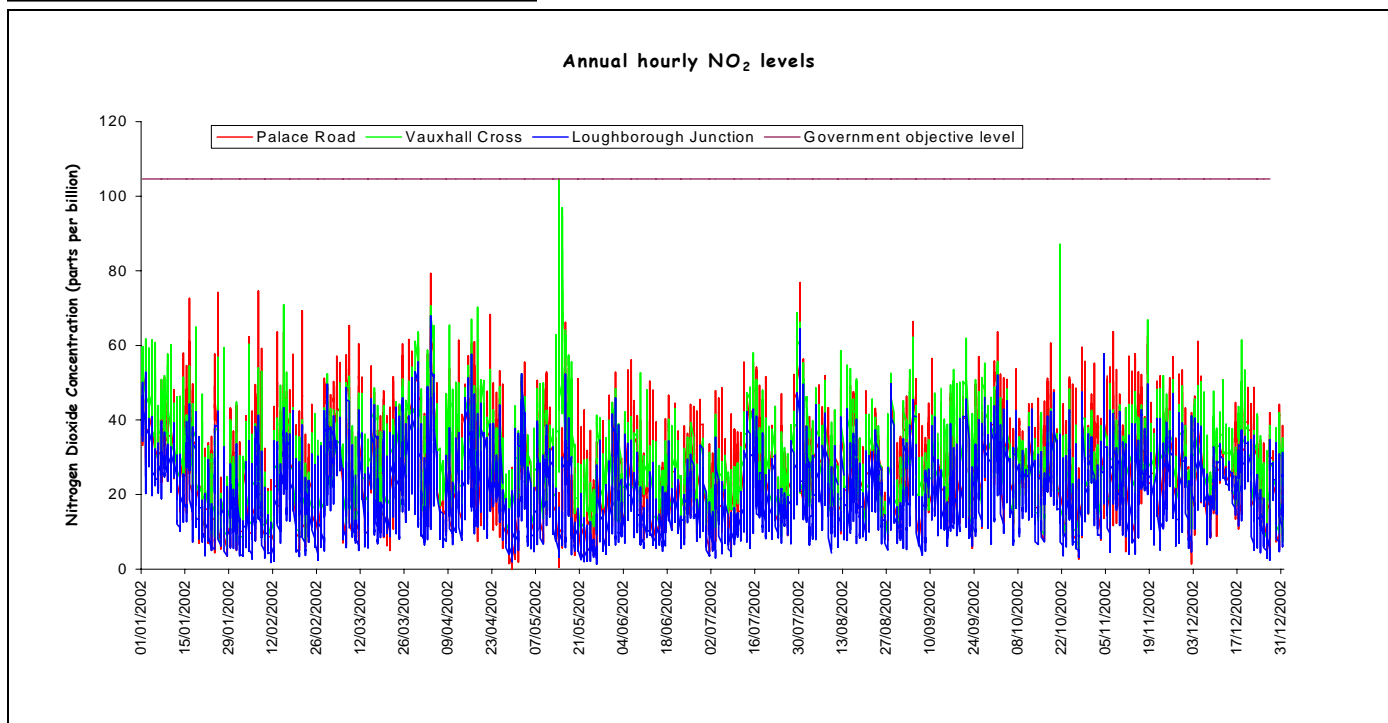
The levels of sulphur dioxide measured at all continuous monitoring sites were low. The Governments objective levels were achieved at all monitoring locations.

Non-continuous monitoring



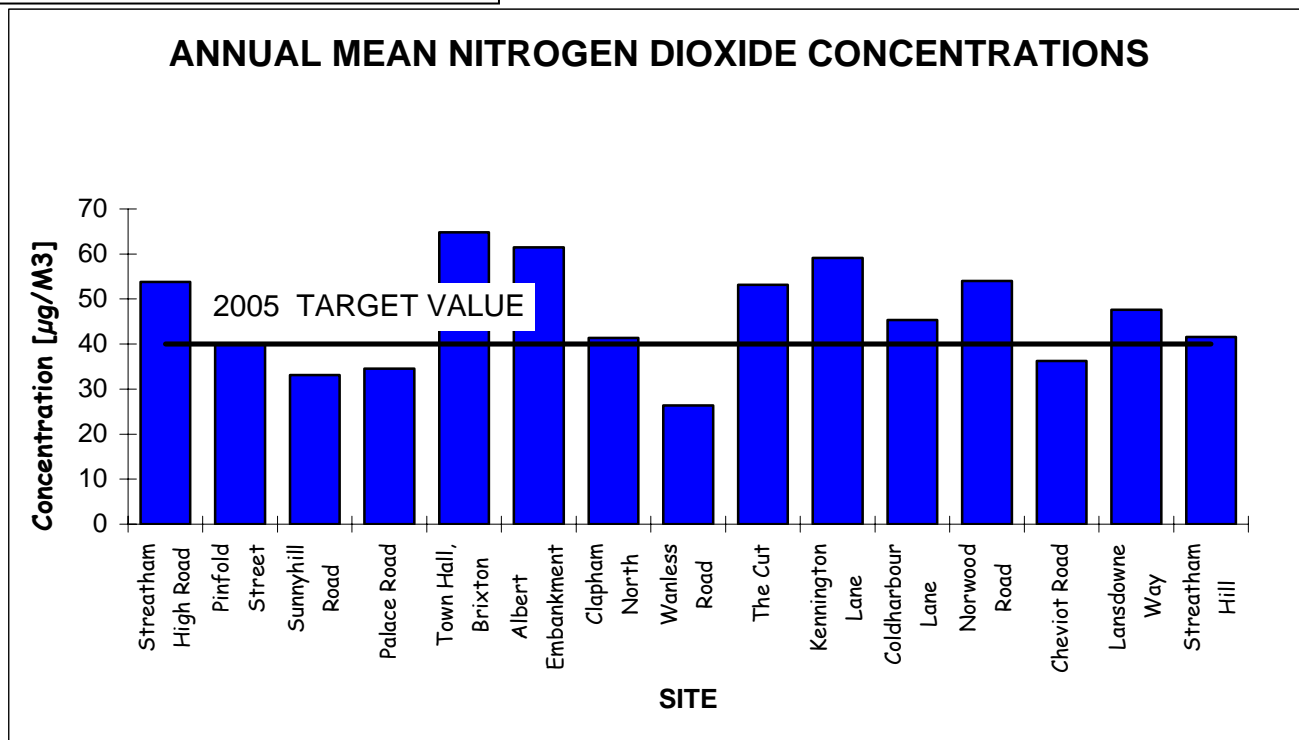
Nitrogen Dioxide (NO₂)

Continuous monitoring



The chart above shows hourly levels during 2002. Levels tend to be highest at roadside sites and at their lowest at background locations

Non-continuous monitoring

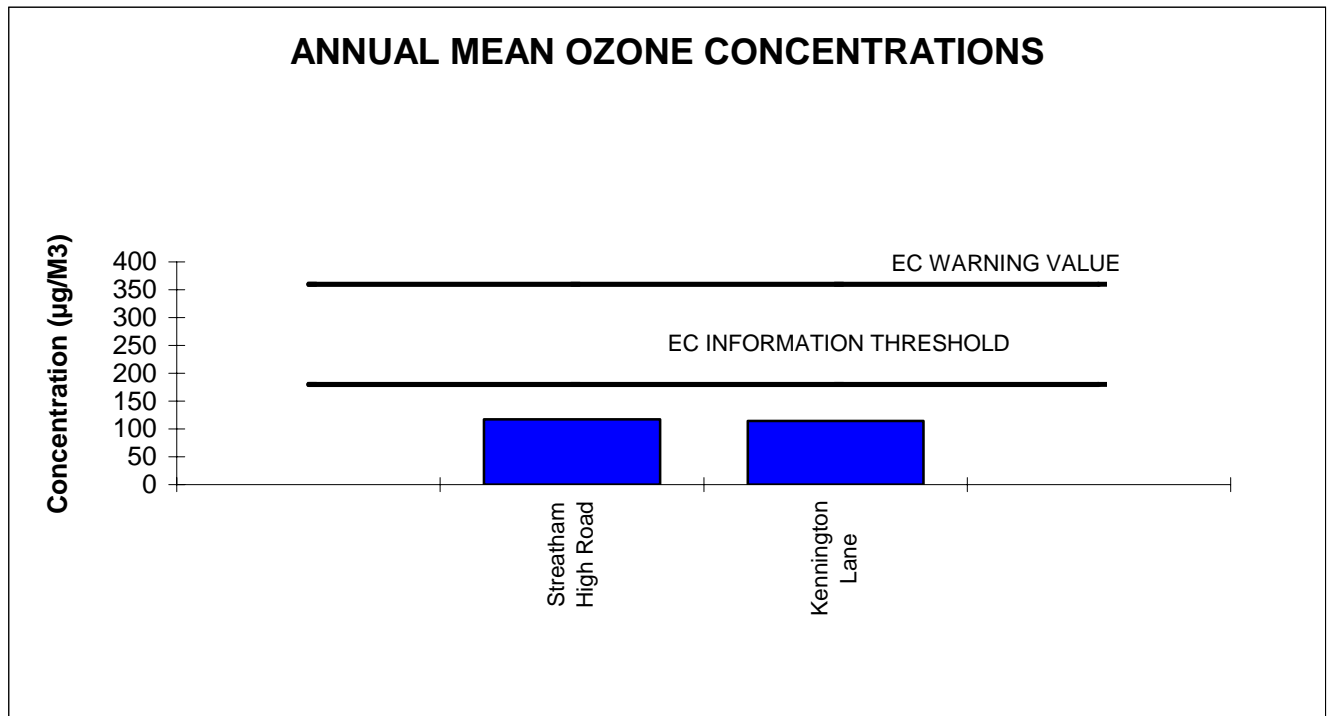


Ozone (O₃)

Ozone, though not included in the Local Air Quality Management process, is still a pollutant of some concern. It is caused by complex reactions involving other pollutants and needs high temperatures and sunlight to be created. Because of this, it often affects large regions, and in particular, the south east of England.

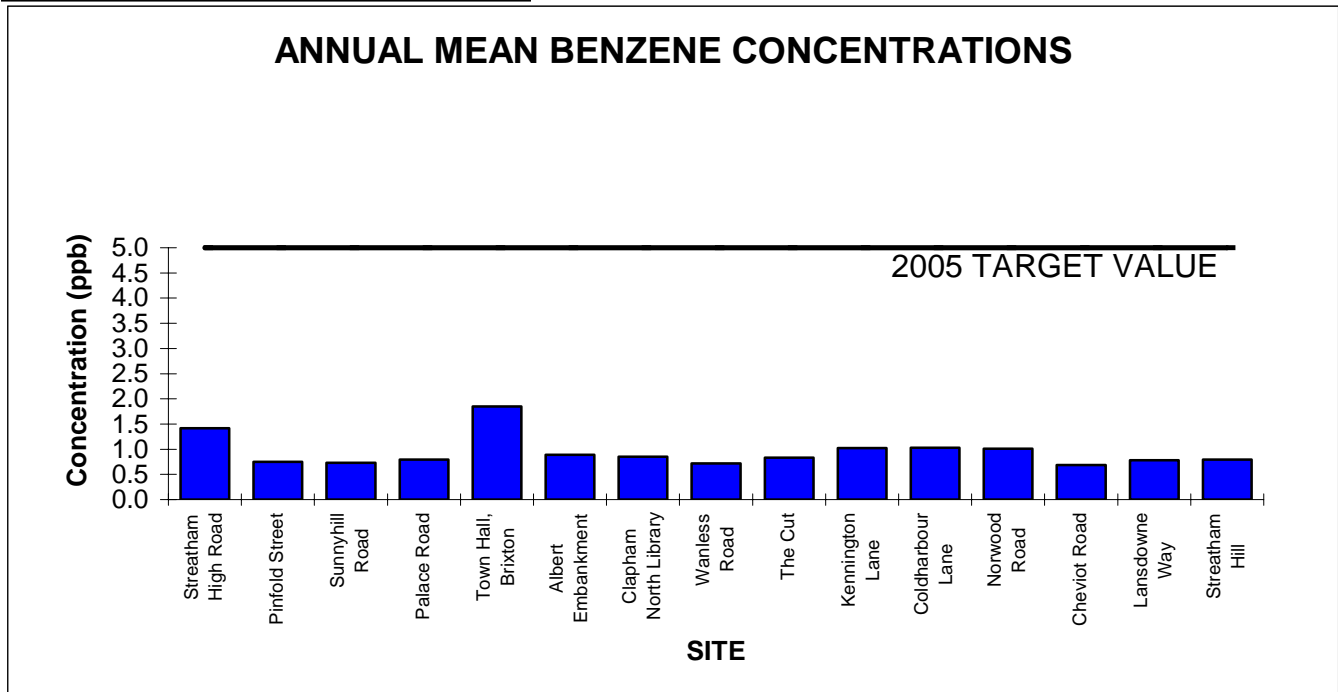
Two sites are monitored for Ozone in Lambeth, both using passive diffusion techniques. The average levels over the year were low.

Non-continuous monitoring



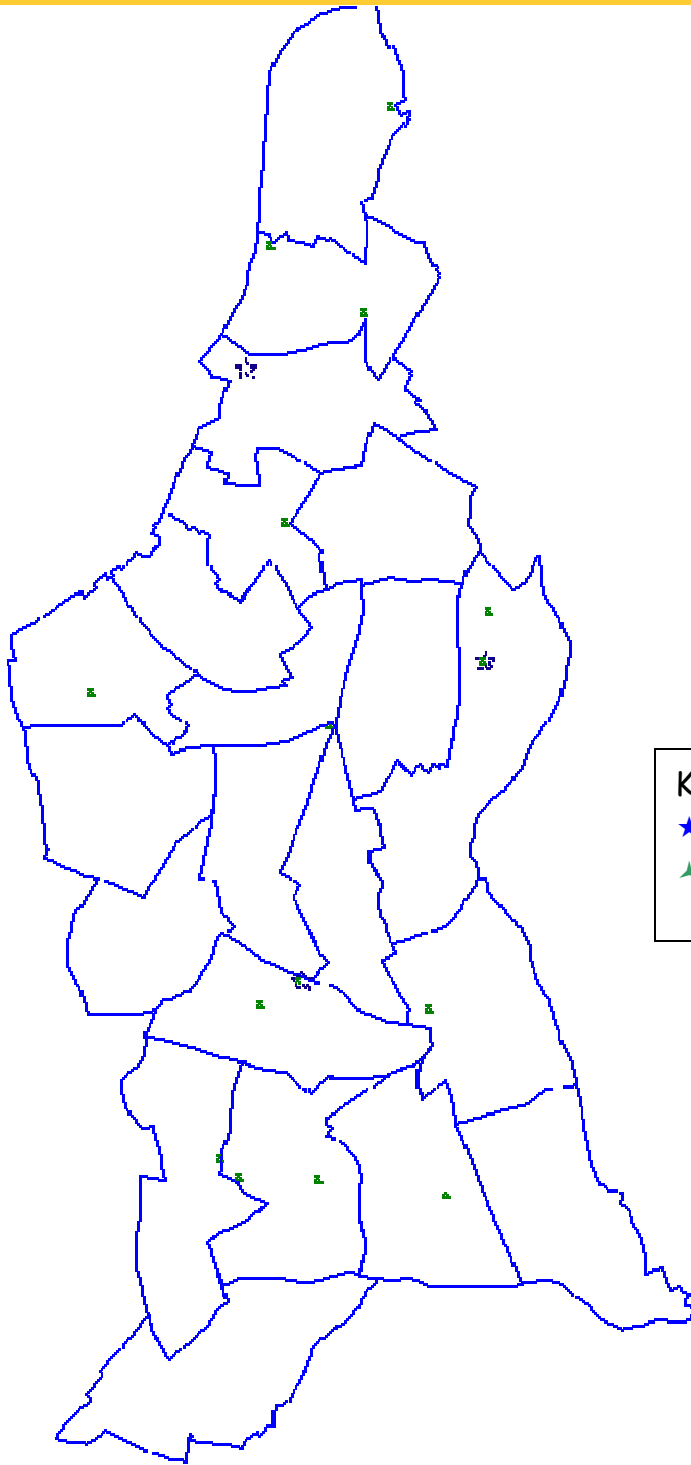
Benzene (C6H6)

Non-continuous monitoring



Benzene levels in the borough, whilst not monitored continually are estimated using a diffusion tube technique. 15 sites are monitored throughout the borough and the levels at all sites are well below the government's current objective level.

Monitoring Sites (continuous & non-continuous)



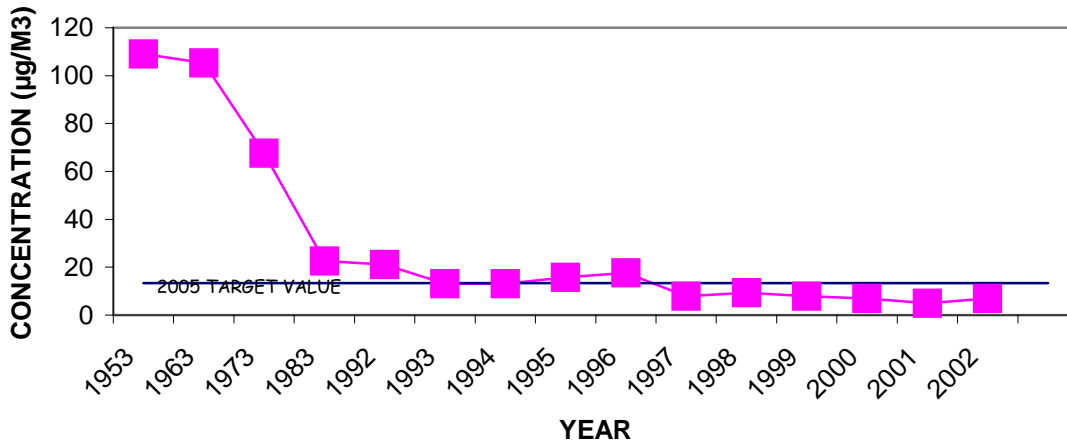
Key:

★ Continuous (Active) Sites

▲ Non-Continuous (Passive) Sites

Passive Trends (non-continuous monitoring)

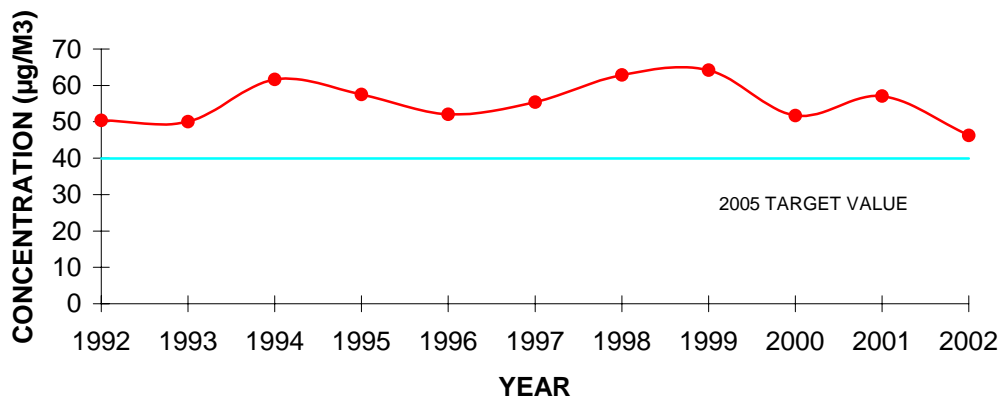
ANNUAL MEAN SULPHUR DIOXIDE CONCENTRATIONS 1953 - 2002



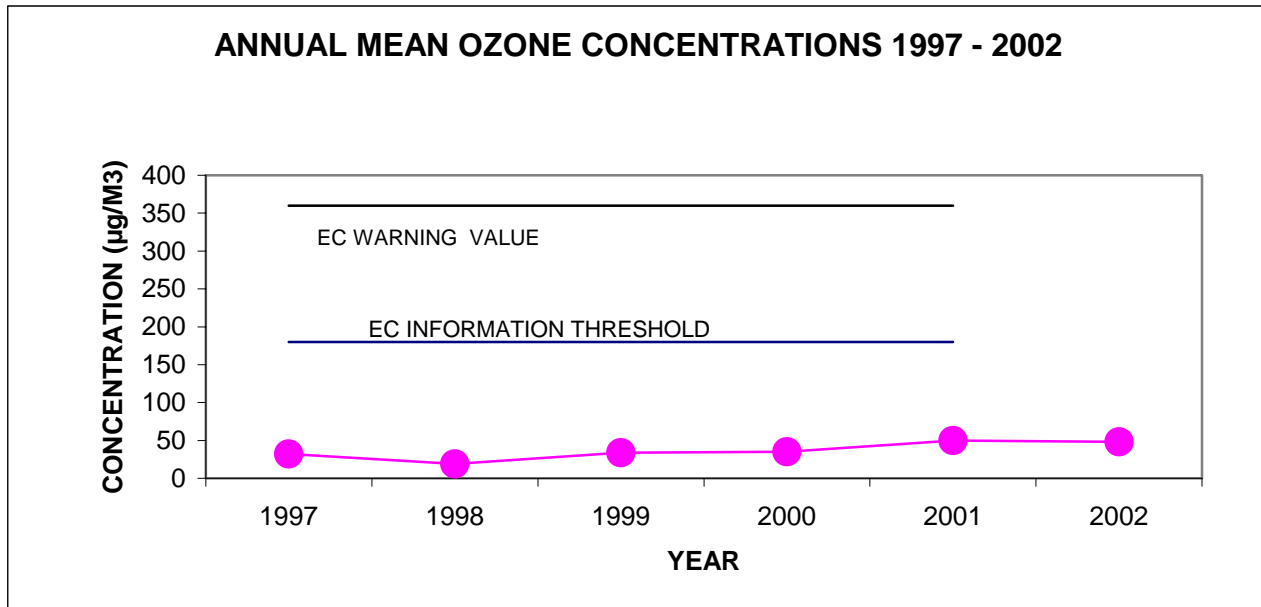
Sulphur dioxide is largely found in heavy fuel oils and coal, the use of which has declined substantially in cities.

Nitrogen Dioxide is largely due to vehicle emitted pollutants, the trend levels indicate that levels will remain above the government's objective level in 2005.

ANNUAL MEAN NITROGEN DIOXIDE CONCENTRATIONS 1992 - 2002

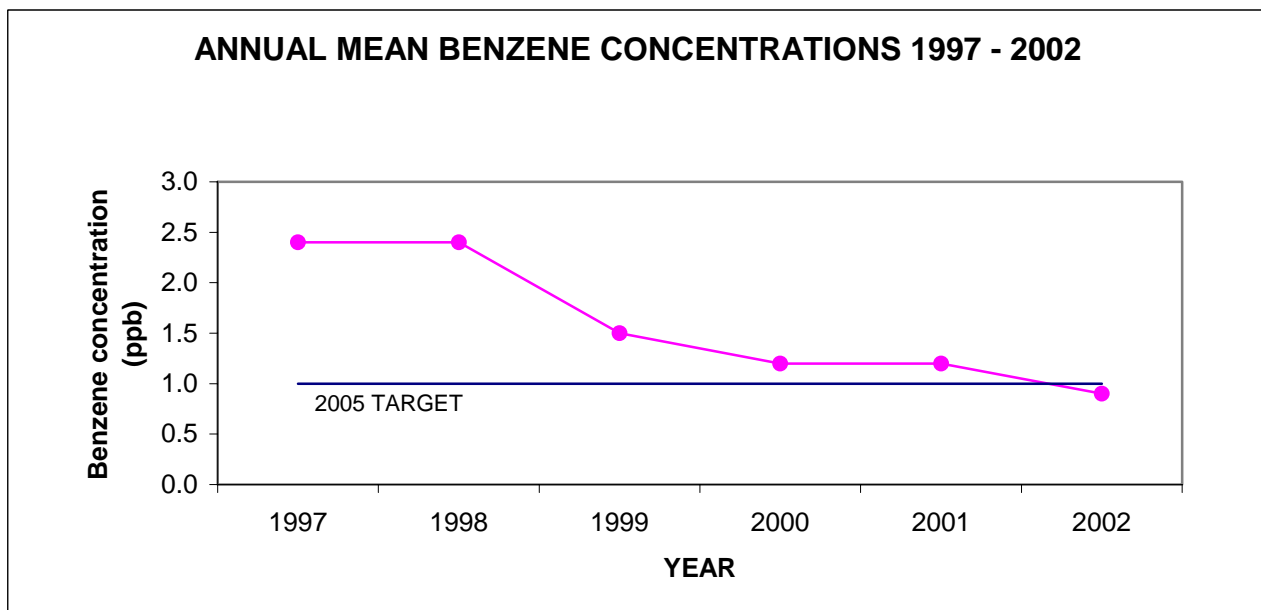


Passive Trends (non continuous monitoring)



Annual average ozone levels have increased slightly overall since monitoring began in 1997.

The level of benzene has declined over the years and the results indicate that the concentrations measured are below the government's current objective level.



Further Information

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Air Quality on the Web!

www.londonair.org.uk

Anniversary of the Great Smog of 1952

2002 was the fiftieth anniversary of the Great Smog. This smog or "Pea-souper" as it was called then, was responsible for the death of many residents in the borough. In the winter of 1952, air pollution brought much of London to a halt, with theatres and cinemas closing. The great smog has gone down in London's history.

It was so thick that people could not see their hands in front of them, and conductors had to walk on front of the buses to guide them. Tragically, the smog took a heavy toll, with estimates of around 4,000 people dying in the five days that the smog was at its worst.

This was a turning point in terms of air pollution and led to

the introduction of the Clean Air Act 1956, which, for the first time, controlled smoke from domestic chimneys and other commercial and industrial processes not covered by the Alkali Acts.

