



Annual Air Quality Report

Active Monitoring Summary

There was only one episode of poor air quality affecting the borough in 2003. This lasted for two days from 15th to 17th July.

There were also a number of incidents where air quality levels breached the moderate, high and very high bands of the governments' air quality dissemination system.

The site at Vauxhall Cross was switched off by Transport for London to enable the building of a new bus garage. We are awaiting permission to re-commission this site.

A new site was opened on Brixton Road on 18th December 2003. This site currently measures for the three pollutants shown in the table opposite.

Public Dissemination Banding				
Number of days that were moderate or above				
Pollutant	Location	Moderate	High	Very High
Nitrogen Dioxide	Palace Road (R)	1	0	0
	Vauxhall Cross (R)	0	0	0
	Loughborough Jnct. (U)	0	0	0
	Brixton Road (K)	6	1	0
	Crystal Palace Parade (R)	0	0	0
Particulate Matter	Palace Road (R)	83	38	25
	Vauxhall Cross (R)	22	24	12
	Loughborough Jnct. (U).	58	25	8
	Brixton Road (K)	0	1	4
	Crystal Palace Parade (R)	2	0	0
Sulphur Dioxide	Palace Road (R)	0	0	0
	Vauxhall Cross (R)	15	24	0
	Loughborough Jnct. (U).	0	0	0
	Brixton Road (K)	0	0	0
	Crystal Palace Parade (R)	0	0	0

Sulphur Dioxide data has not been fully ratified

Vauxhall Cross and Brixton Road data must be considered with care; the Brixton Road site was only running for 14 days of the calendar year, this is equivalent to a data capture of 4%. The Vauxhall Cross site was running for 181 days of the calendar year, a data capture of 50%.

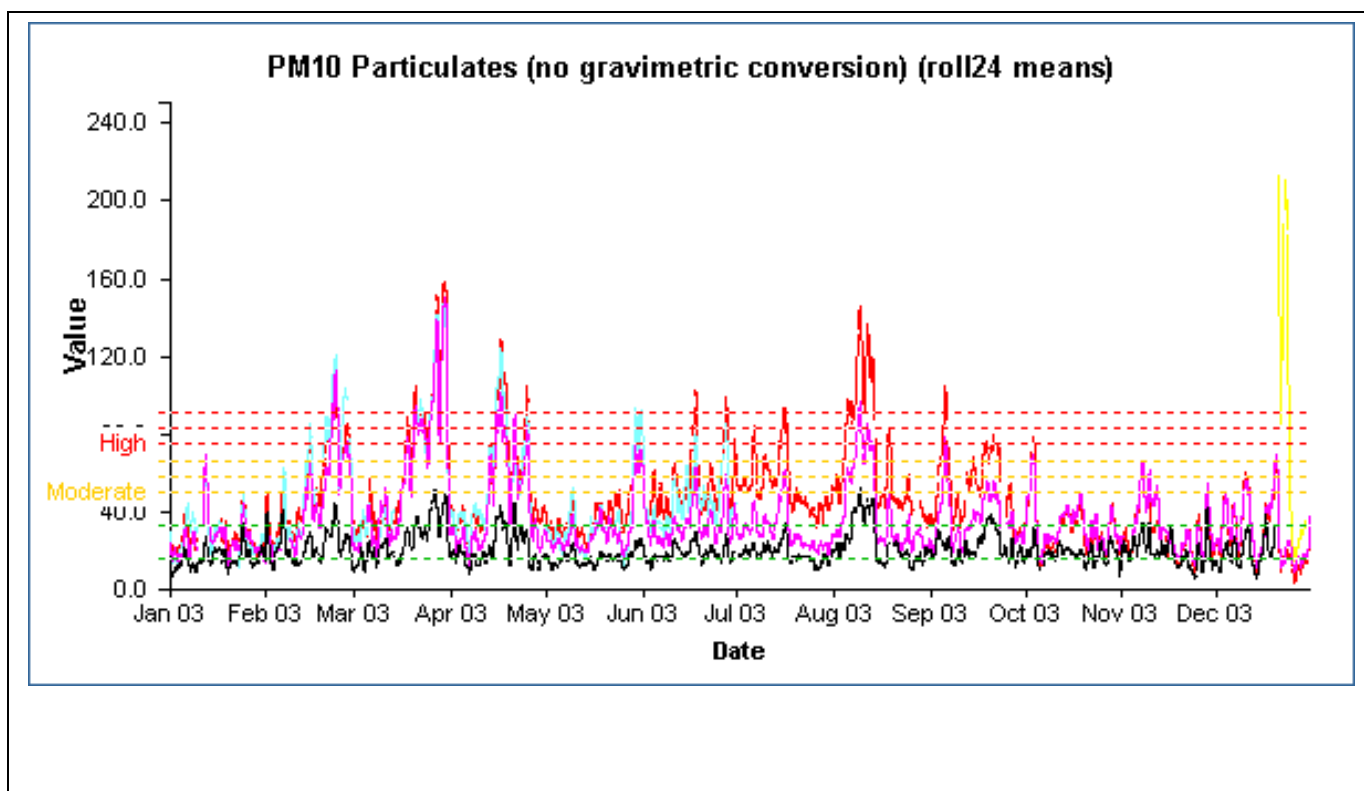


Particulate Matter (PM₁₀)

Particulate Matter has been measured in the borough since 1999. In 2003 average levels of PM₁₀ in the borough were up significantly higher than the previous four years at all sites. The urban background levels have been rising for the last two years, whilst the levels at Vauxhall Cross are now rising after falling for the previous four years. 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.

All sites exceeded the government target of less than 35 days where the daily mean is greater than 50 microgrammes per cubic metre. Only the background site achieved the government objective of having an annual mean less than 40 microgrammes per cubic metre.

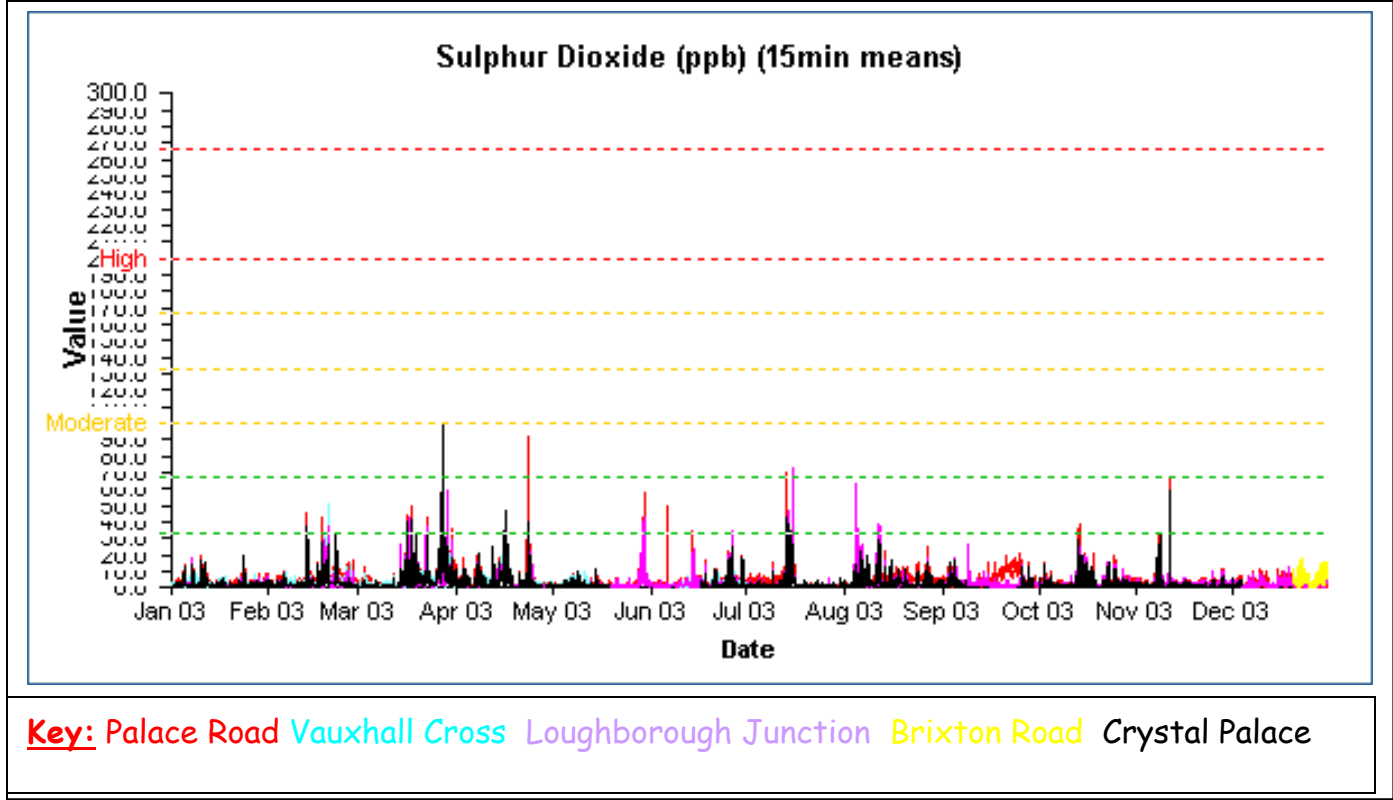
Continuous monitoring



Key: Palace Road Vauxhall Cross Loughborough Junction Brixton Road Crystal Palace

Sulphur Dioxide (SO₂)

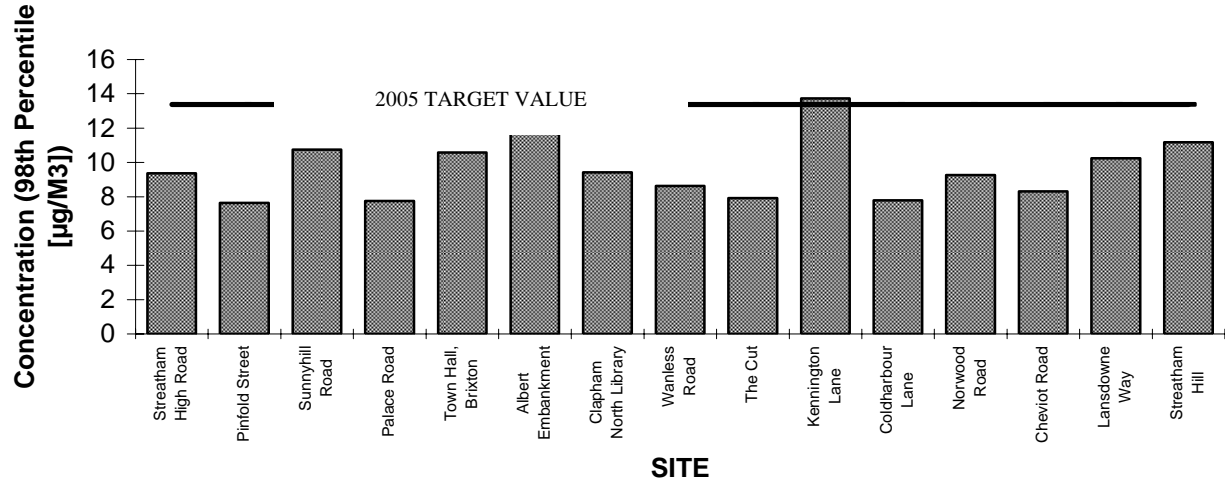
Continuous monitoring



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

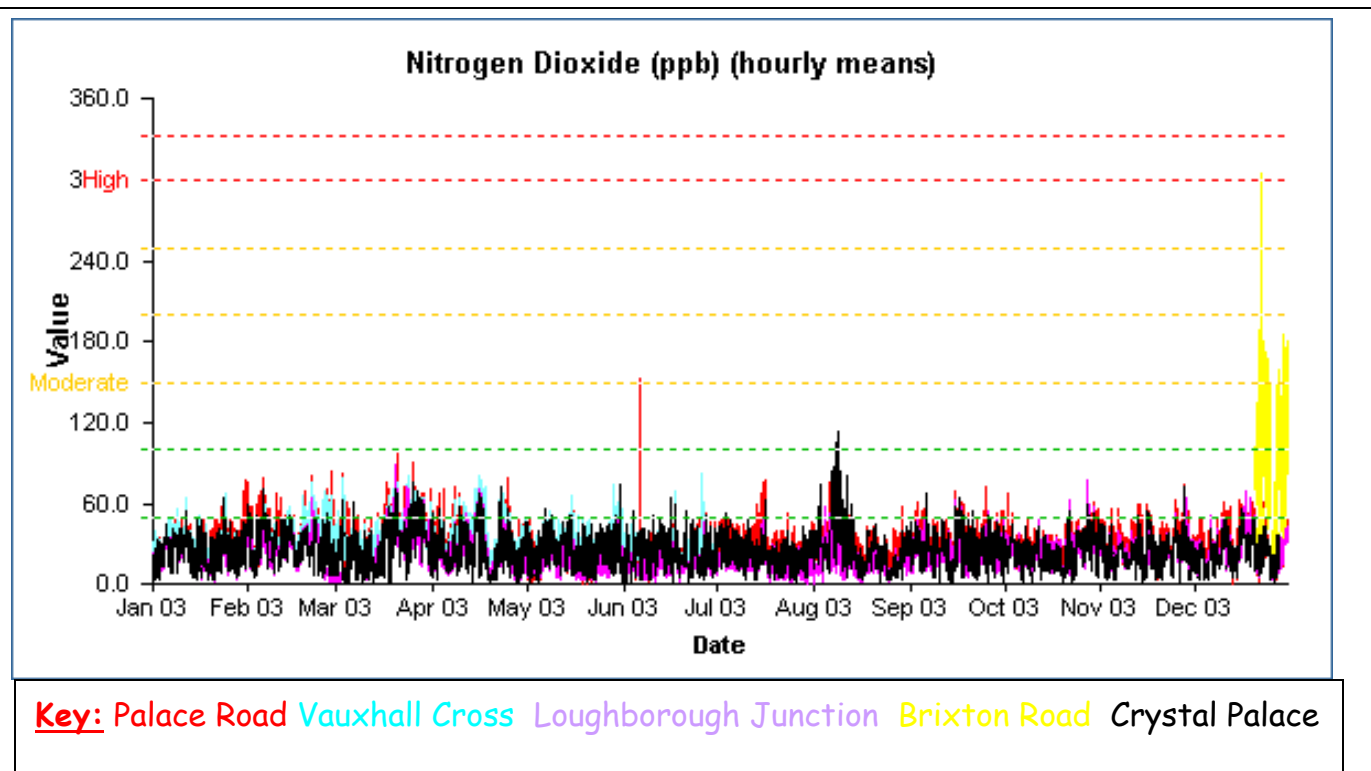
Non-continuous monitoring

ANNUAL MEAN SULPHUR DIOXIDE CONCENTRATIONS



Nitrogen Dioxide (NO₂)

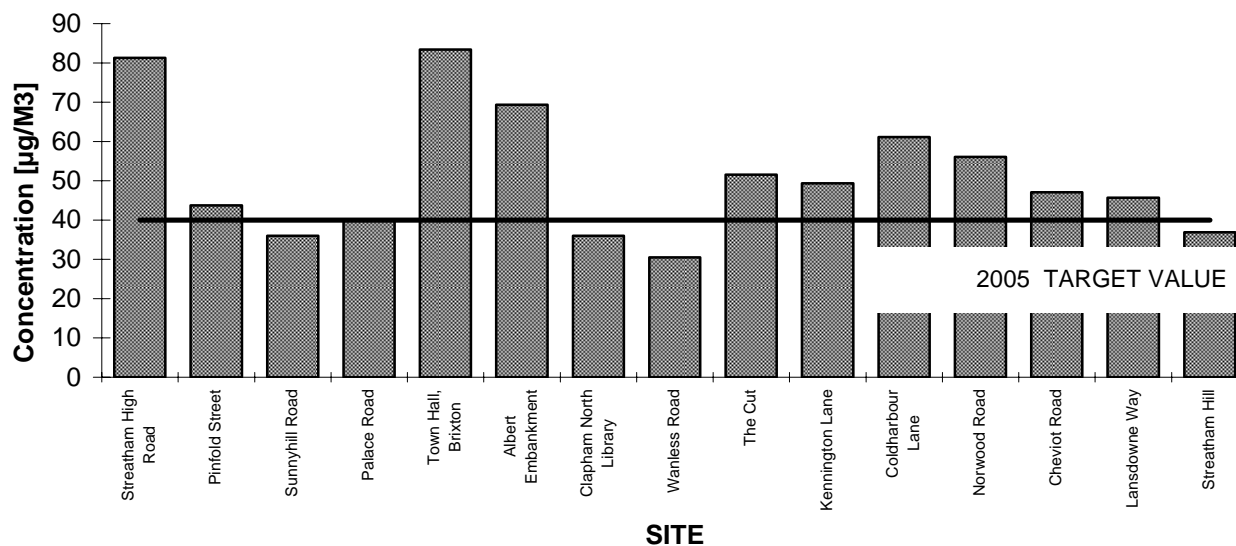
Continuous monitoring



The chart above shows hourly levels during 2003. Levels tend to be highest at roadside sites and at their lowest at background locations.

Non-continuous monitoring

ANNUAL MEAN NITROGEN DIOXIDE CONCENTRATIONS



Ozone (O₃)

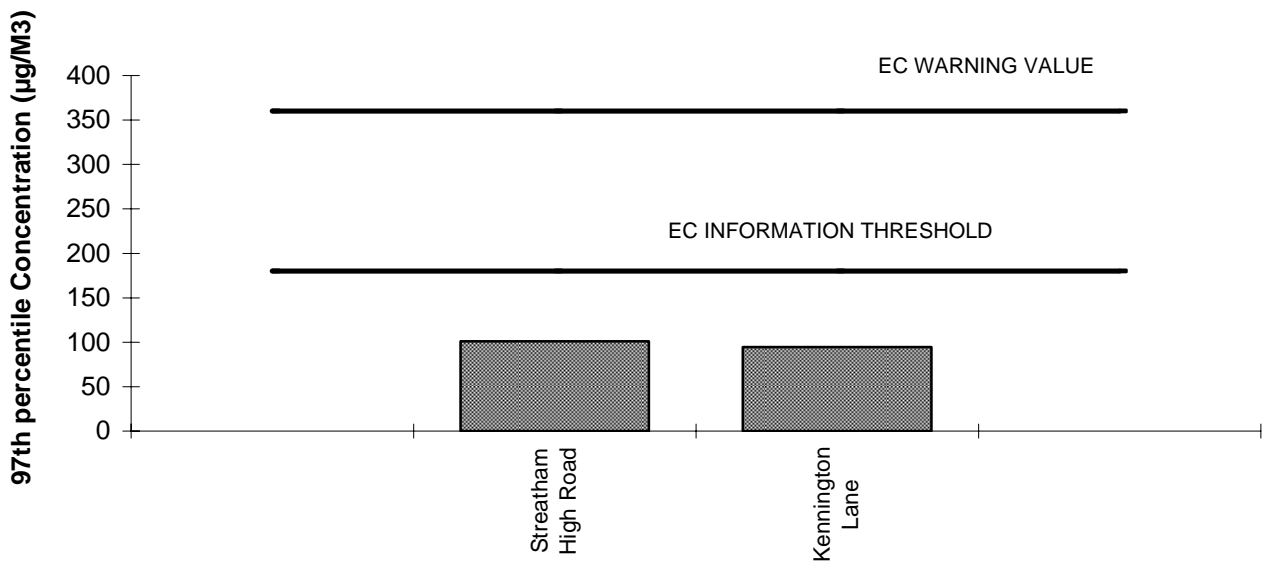


Ozone, though not included in the Local Air Quality Management process, is still a pollutant of some concern. It is caused by complex reactions involving other pollutants and needs high temperatures and sunlight to be created. Because of this, it often affects large regions, and in particular, the south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

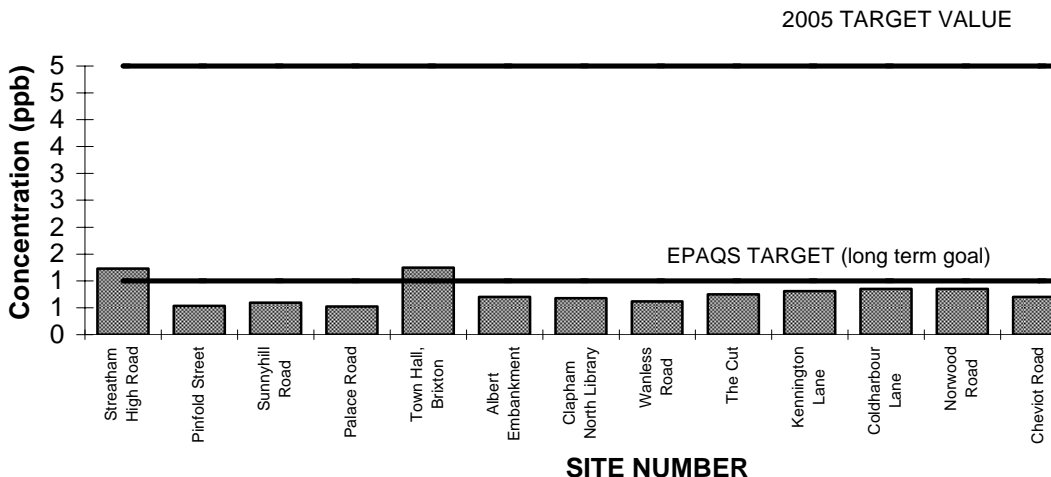
ANNUAL MEAN OZONE CONCENTRATIONS



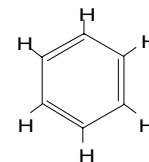
Benzene (C₆H₆)

Non-continuous monitoring

ANNUAL MEAN BENZENE CONCENTRATIONS

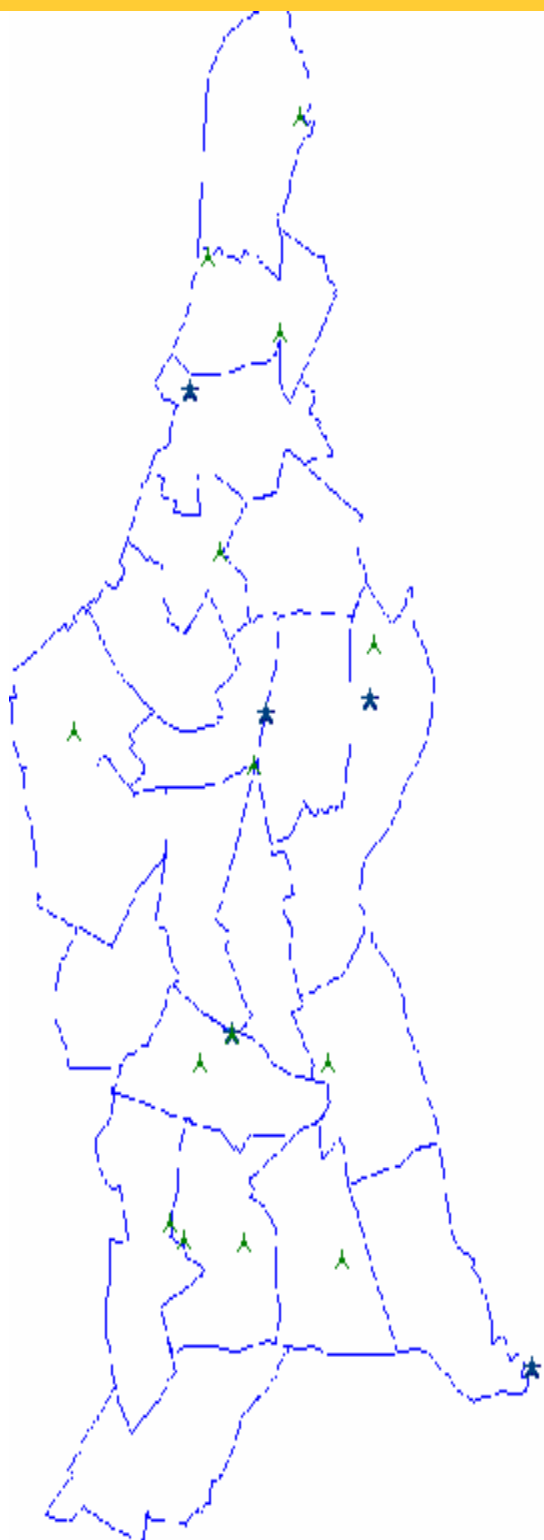


Benzene levels in the borough, whilst not monitored continually are estimated using a diffusion tube technique.



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)



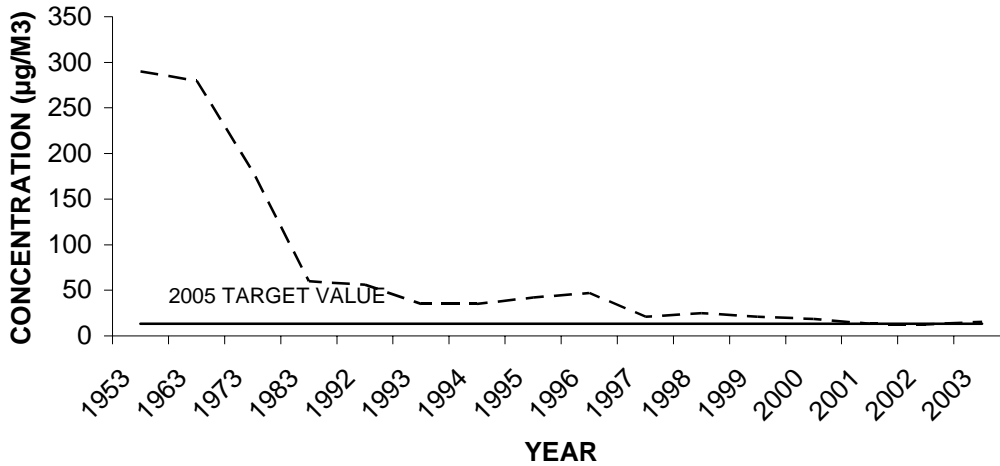
Key:

★ Continuous (Active) Sites

▲ Non-Continuous (Passive) Sites

Passive Trends (non-continuous monitoring)

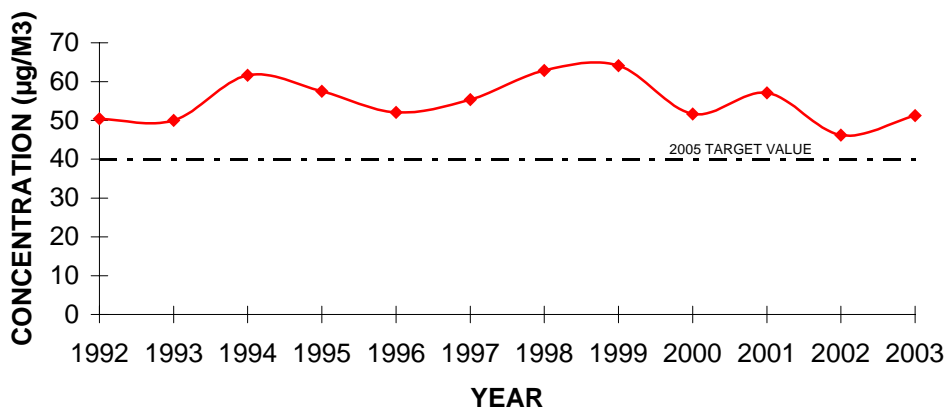
ANNUAL MEAN SULPHUR DIOXIDE CONCENTRATIONS 1953 - 2003



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

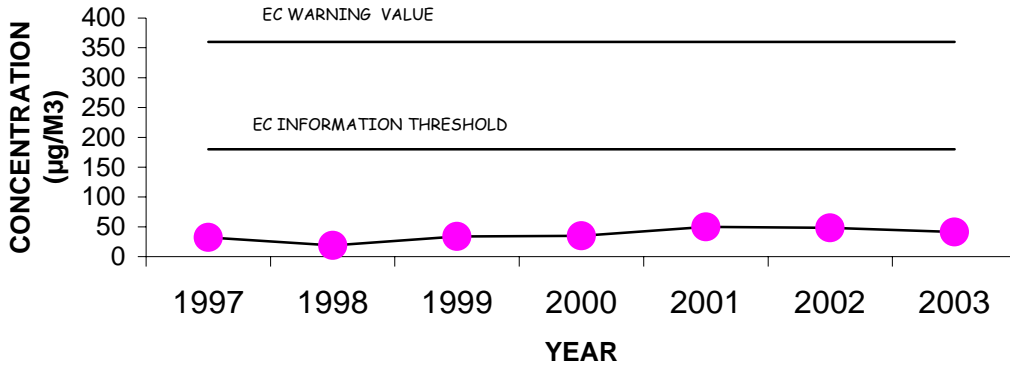
Nitrogen Dioxide is largely due to vehicle emitted pollutants, the trend levels indicate that levels will remain above the government's objective level in 2005.

ANNUAL MEAN NITROGEN DIOXIDE CONCENTRATIONS 1992 - 2003



Passive Trends (non continuous monitoring)

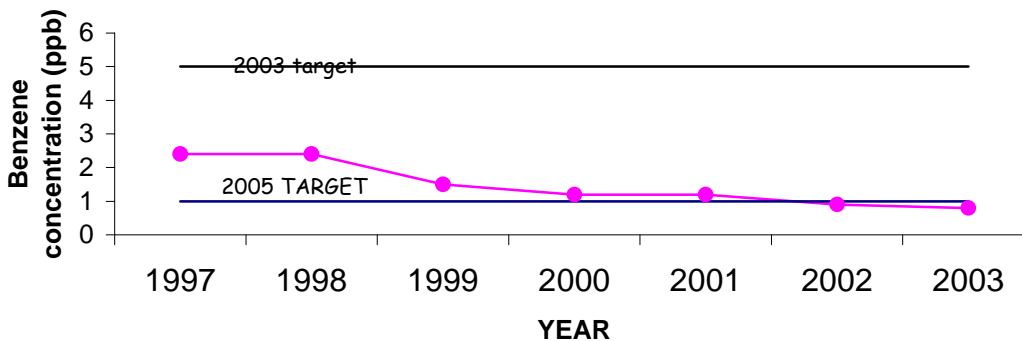
ANNUAL MEAN OZONE CONCENTRATIONS 1997 - 2003



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.

ANNUAL MEAN BENZENE CONCENTRATIONS 1997 - 2003



Further Information

Environmental Health
2 Herne Hill Road
London
SE24 0AU

Phone:
020 7926 6111

Fax:
020 7926 6150

E-mail:
regulatoryservices
@lambeth.gov.uk

Air Quality on the Web!
www.londonair.org.uk

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 still the pollutant of most concern in the borough. On average over the

year nitrogen dioxide exceeded the government's current objective level at 10 sites. Only 4 sites were lower than the current government objective.

