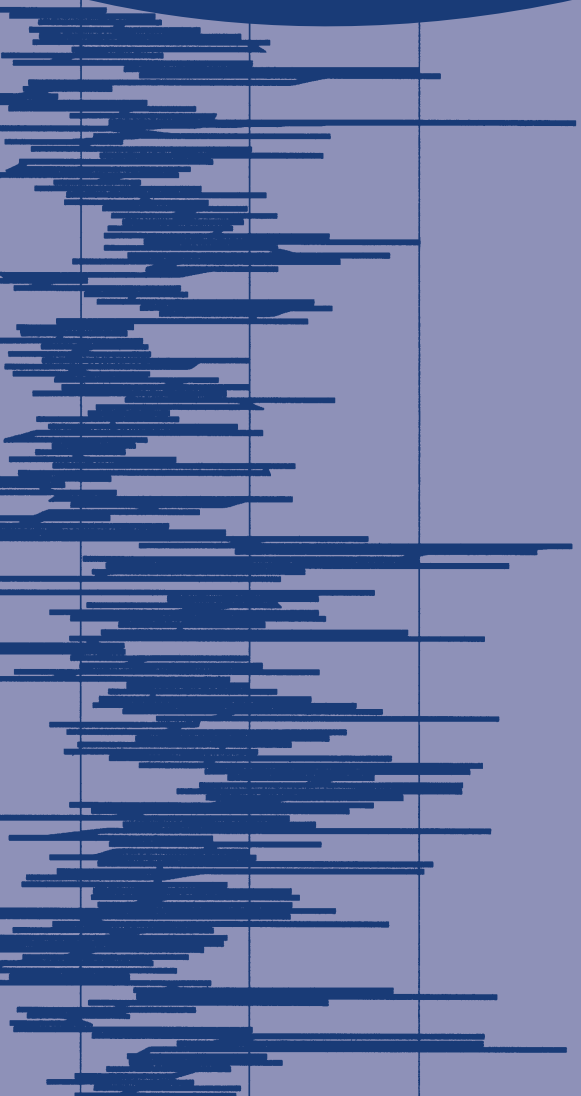


Air Quality in Lambeth



This booklet is published annually to provide information regarding Air Quality monitoring, carried out by Lambeth Regulatory Services.

2000

Councillor's Statement



This year the Council has completed its detailed study of air quality over the whole borough and, even though the results show that Lambeth's air quality is getting better, there are still parts of the borough where levels of air pollution are unacceptable.

The council has produced a map to highlight these pollution hotspots and will be declaring them as Air Quality Management Areas. Our aim is to improve air quality in Lambeth and

to this end we are working in partnership with other London boroughs and the Greater London Authority (Mayors Office) to develop Action Plans to tackle these pollution hotspots, bring down pollution levels and deliver the clean air that is essential to a good quality of life.

There is no quick-fix solution to our air quality problems. It will require the council and partner organisations to work hard to combat vehicle congestion, improve public transport facilities and encourage "green" vehicles and technologies which produce little or no pollution.

We can all do our bit to improve Lambeth's air quality. By using your car less, especially for short journeys, walking or using public transport, choosing cleaner fuels and having your car serviced regularly so that it runs efficiently and does not pollute the air so much, we can all be part of the solution.

Councillor Paul McGlone

Introduction

Road traffic is the primary cause of air pollution in Lambeth, as well as the rest of London. The vehicle emissions of greatest concern are Nitrogen Dioxide, Fine Particulates (PM10), Carbon Monoxide and Volatile Organic Compounds (VOC's) such as Benzene. High levels of any of these pollutants can affect health, making breathing problems, such as asthma, and heart problems worse.

An inventory of all air pollution emissions in London was compiled by the London Research Centre. The inventory estimates that vehicles in Lambeth emit over 20,000 tonnes of the above pollutants every year. This represents 90% of air pollution emissions from all other sources in the borough. In addition vehicles in Lambeth create nearly a quarter of a million tonnes of the greenhouse gas carbon dioxide which contributes to global warming.

Lambeth has been monitoring air pollution throughout the borough since 1993 and publishes the results annually. Currently nitrogen dioxide, sulphur dioxide and benzene are monitored using diffusion tubes at 15 sites around the borough. Ozone and lead in air are also monitored at some of these sites.

In addition Lambeth operates 4 continuous air quality monitoring stations which monitor for nitrogen dioxide, sulphur dioxide, fine particulates (PM10) and carbon monoxide (at one site only).

In order to tackle the problem the council has been carrying out a detailed air pollution study* of the whole borough. This review and assessment of air quality in Lambeth looked at the pollution monitoring results, for seven key pollutants, from a large number of sites across the borough and the whole of London. This information together with data on traffic levels and weather conditions was used to predict future air pollution levels in the borough. The results showed that, despite improvements in air quality in Lambeth over the next 4 to 5 years two pollutants, nitrogen dioxide and fine particulates, are likely to fail government targets.

The Council contracts independent laboratory consultants to monitor and report the quality of the air in the borough. This leaflet provides a summary of the most recent results and explains the steps the council is taking to combat air pollution.

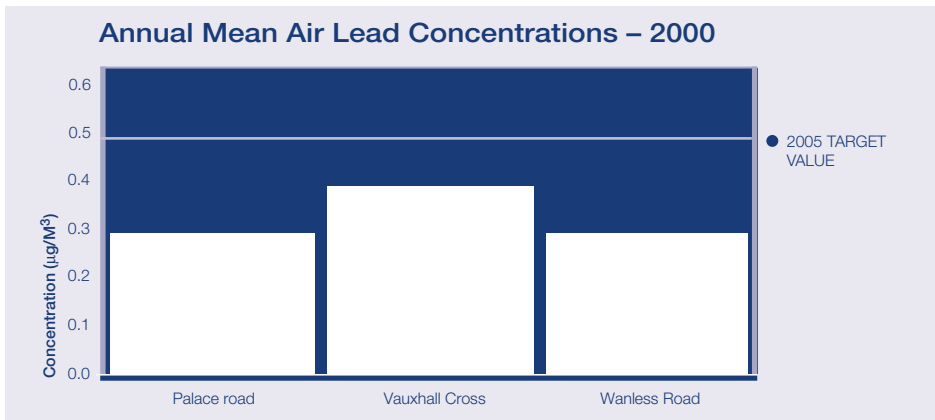
* The full report on The Review and Assessment of Air Quality in Lambeth is available from Regulatory Services, 2 Herne Hill Road, London SE24 0AU.

Regularly updated air quality information is available with health advice on the DETR freephone interactive helpline: **0800 556 677**

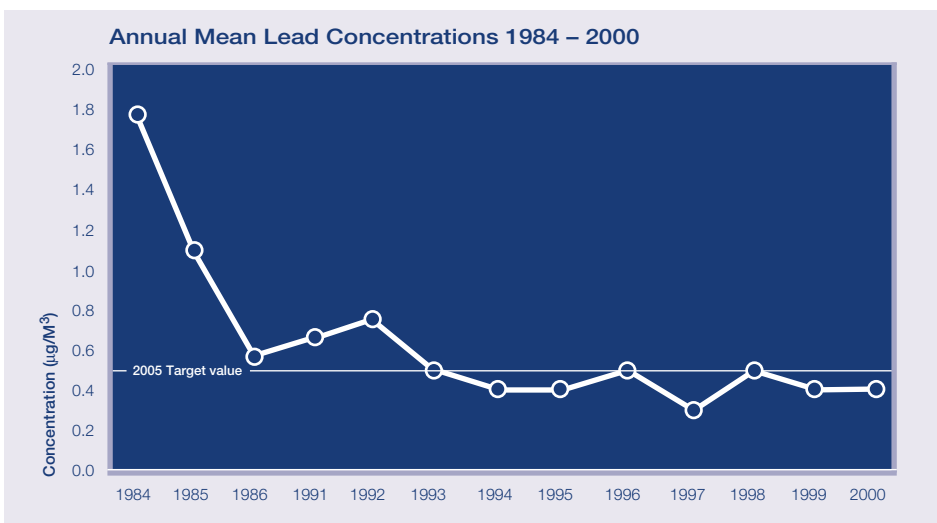
Passive monitoring

Airborne Lead

Airborne lead was monitored on a routine basis at the three sites used for continuous air quality monitoring.



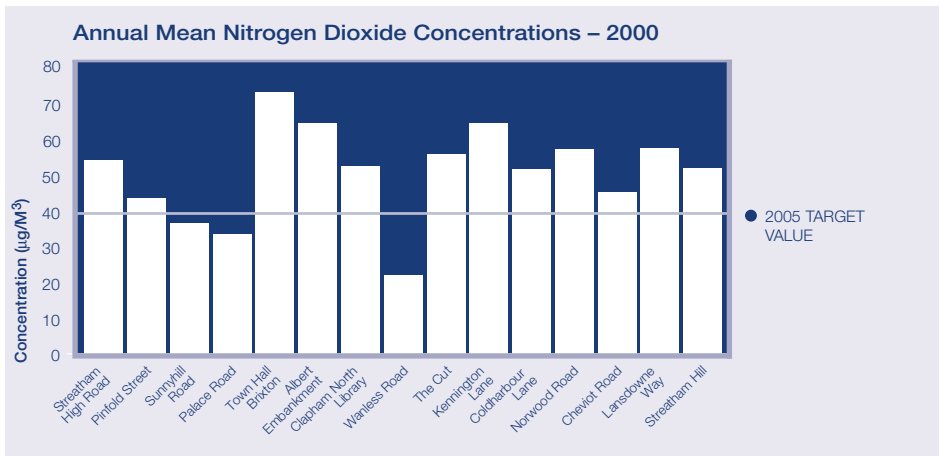
Airborne levels were below the government's target for the year 2005 at all three sites in 2000.



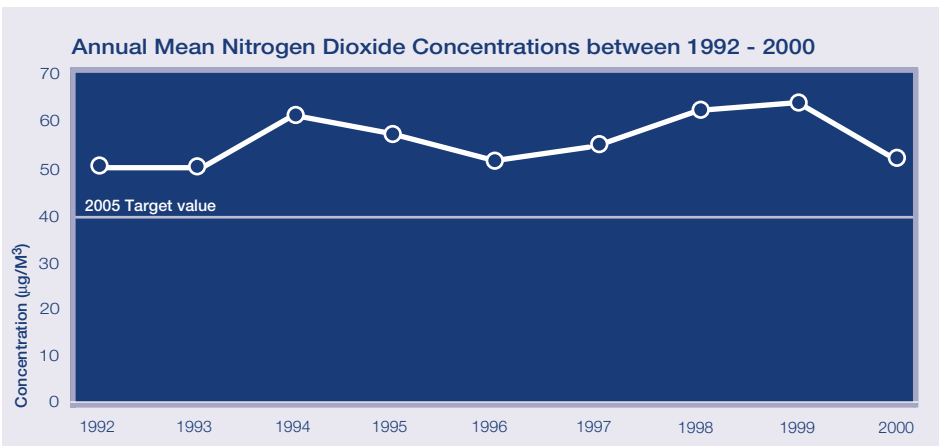
Airborne lead levels have fallen since 1985 due to a reduction in the amount of lead allowed in 4 star petrol and following the introduction of unleaded petrol.

Nitrogen Dioxide

Nitrogen Dioxide is monitored on a monthly basis. Fifteen sites were monitored during January - December 2000. These sites covered areas of high and low traffic flow.



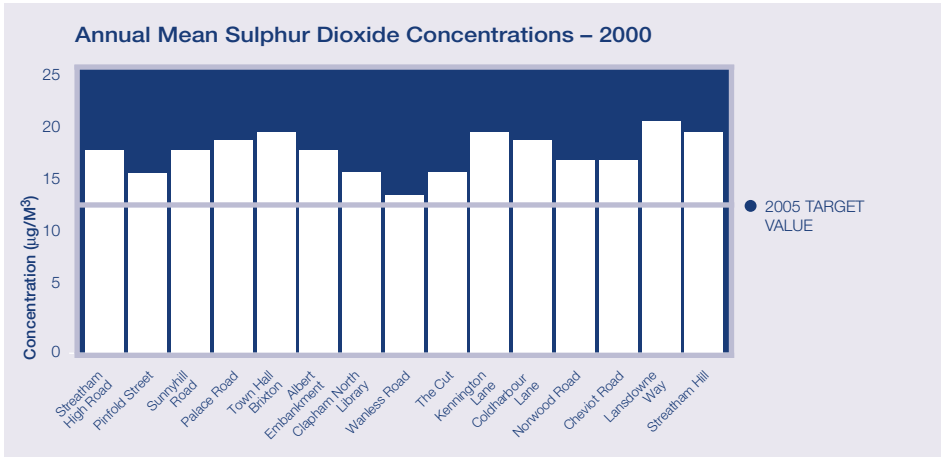
In 2000, the 2005 target was exceeded at 12 sites. This compares with 8 sites exceeding the 2005 target in 1999.



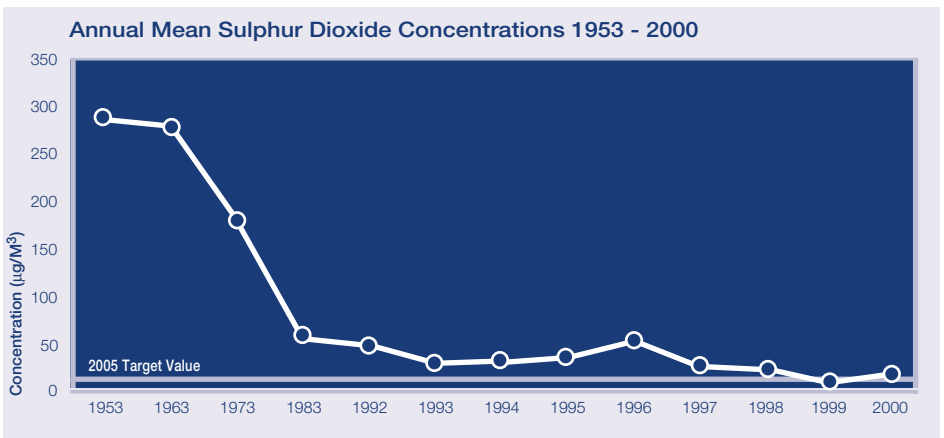
The NO₂ concentration averaged over the whole borough has begun to decline but is still above the 2005 target value.

Sulphur Dioxide

Like Nitrogen Dioxide, Sulphur Dioxide is also monitored on a monthly basis. Fifteen sites were monitored during January - December 2000. These sites covered areas of high and low traffic flow.



The level of 13.37µg/m3 for passive diffusion tube monitoring is equivalent to the 2005 Target value for continuous monitors. Exceedence of the 266 µg/m3 2005 Standard is likely if the annual mean concentration exceeds 13.37µg/m3.

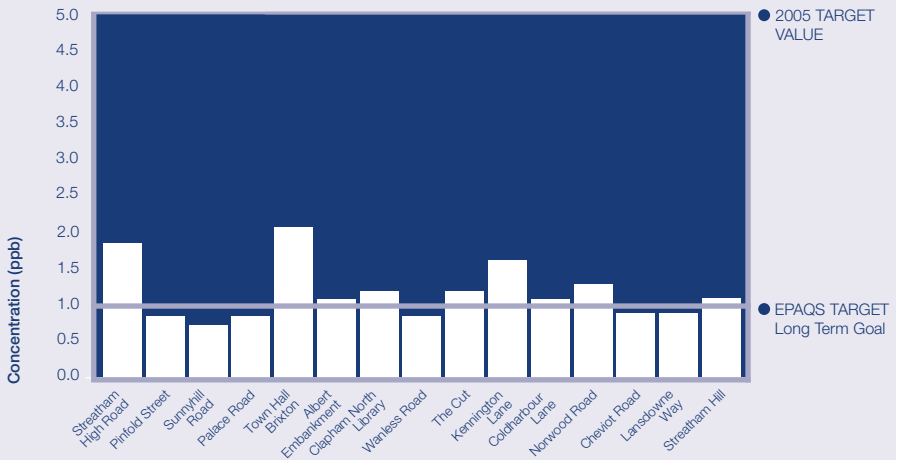


The 2005 target value was exceeded at all of the sites averaged over the year 2000. This compares with no exceedence of the target in 1999.

Benzene

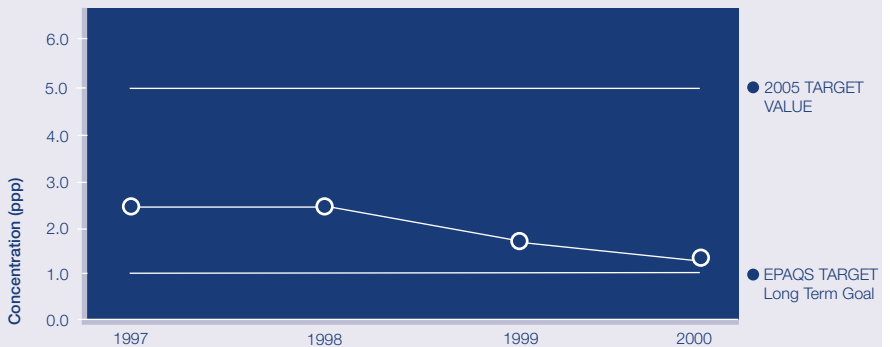
Benzene is monitored on a monthly basis. The fifteen sites that were monitored for Nitrogen Dioxide and Sulphur Dioxide were also monitored for Benzene during January - December 2000. These sites covered areas of high and low traffic flow.

Annual Mean Benzene Concentrations – 2000



During 2000 none of the sites monitored exceeded the 2005 target value when averaged over the year. 9 sites exceeded the EPAQS long term goal. This is an improvement from 1999 when all sites exceeded the EPAQS target.

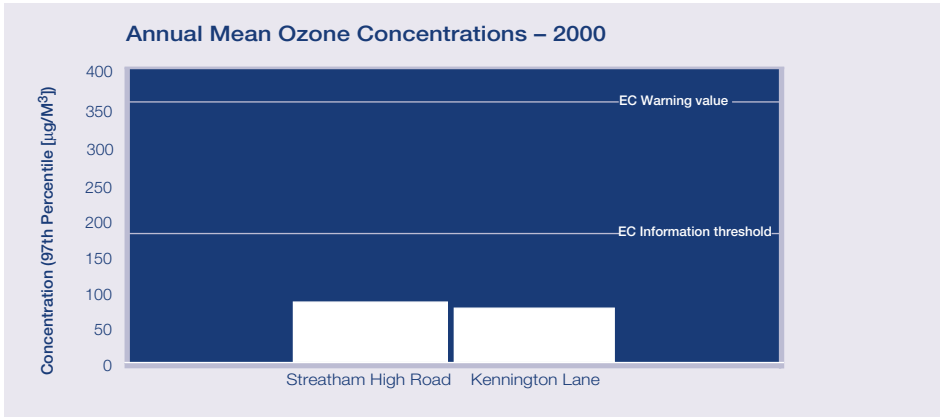
Annual Mean Benzene Concentrations 1997 – 2000



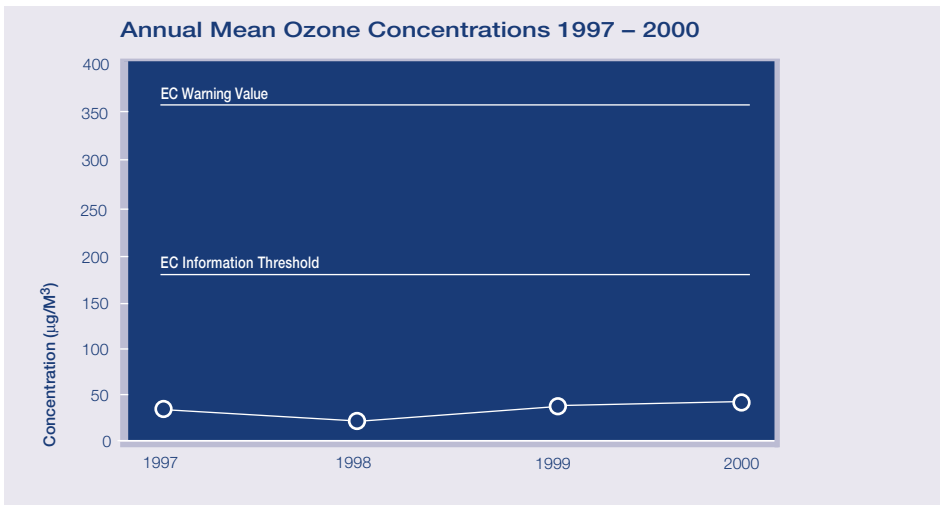
The Annual Mean concentration averaged over the whole borough was lower in 2000 than the previous three years.

Ozone

Ozone was monitored on a monthly basis at two sites in the borough during January - December 2000. These sites covered areas of high traffic flow.



None of the sites monitored exceeded the EC threshold levels.



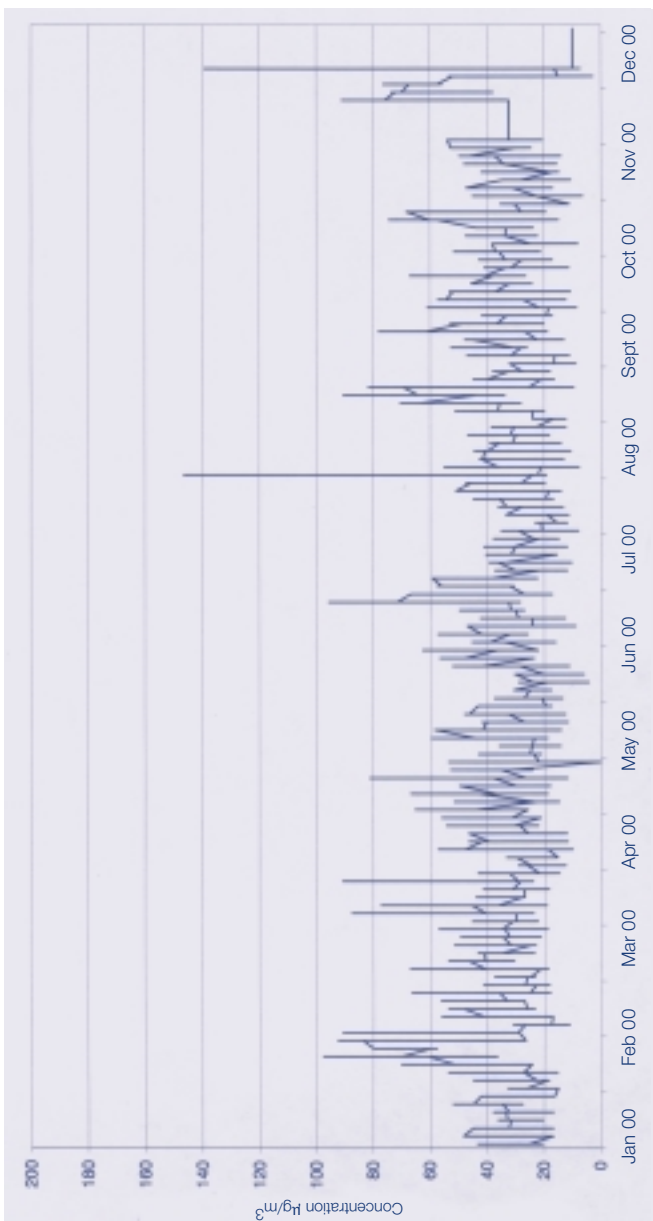
National air quality strategy standards

Pollutant	Objective		Date to be achieved by
	Concentration	Measured as	
Benzene	16.25 µg/m ³ (5ppb)	running annual mean	31.12.2003
1,3 Butadiene	2.25 µg/m ³ (1ppb)	running annual mean	31.12.2003
Carbon monoxide	11.6 mg/m ³ (10ppm)	running 8 hour mean	31.12.2003
Lead	0.5 µg/m ³	annual mean	31.12.2004
	0.25 µg/m ³	annual mean	31.12.2008
Nitrogen dioxide	200 µg/m ³ (105ppb)	1 hour mean not to be exceeded more than 18 times a year	31.12.2005
	40 µg/m ³ (21ppb)	annual meanannual mean	31.12.2005
Particles (PM10)	50 µg/m ³	24 hour mean not to be exceeded more than 35 times a year	31.12.2004
	40 µg/m ³	annual mean	31.12.2004
Sulphur dioxide	350 µg/m ³ (132ppb)	1 hour mean not to be exceeded more than 24 times a year	31.12.2004
	125 µg/m ³ (47ppb)	24 hour mean not to be exceeded more than 3 times a year	31.12.2004
	266 µg/m ³ (100ppb)	15 mins mean not to be exceeded more than 35 times a year	31.12.2005

The above table provides a summary of the National Air Quality Strategy objectives.

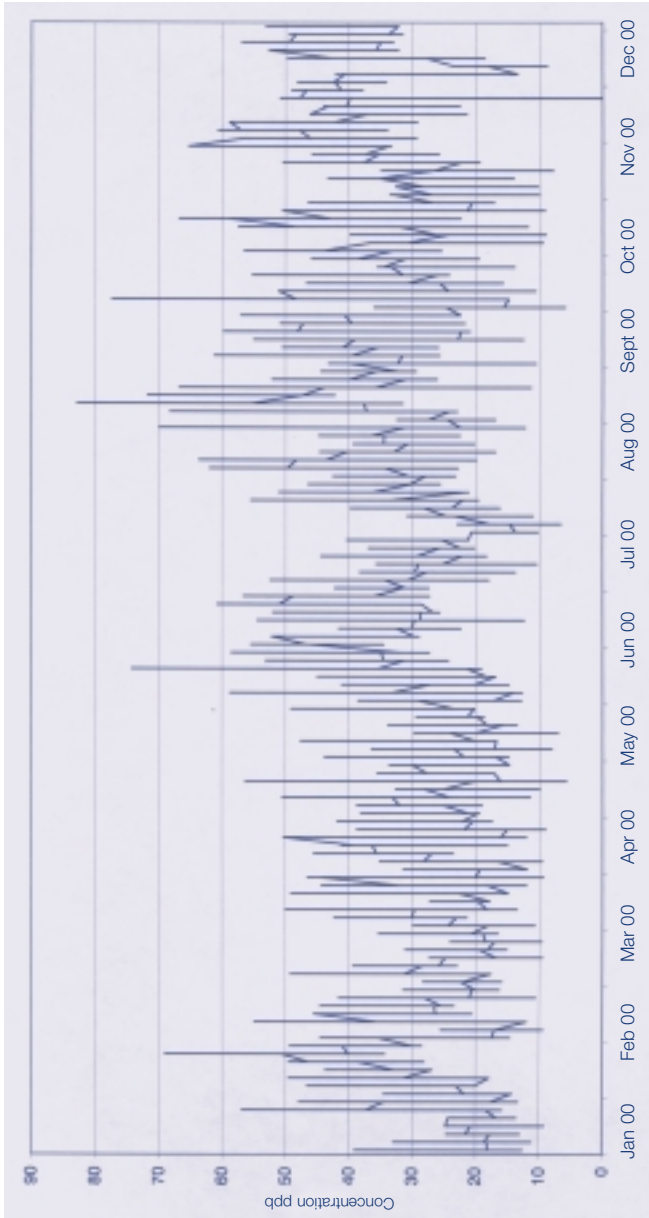
Continuous monitoring

Fine Particles (PM10) 2000



The annual mean 2005 Target is $40 \mu\text{g}/\text{m}^3$. The annual mean for 2000 was $40 \mu\text{g}/\text{m}^3$.
The 24 Hour Mean 2005 Target of $50 \mu\text{g}/\text{m}^3$ should not be exceeded more than 35 times a year.
There were 96 exceedences at this site during 2000.

Nitrogen Dioxide 2000



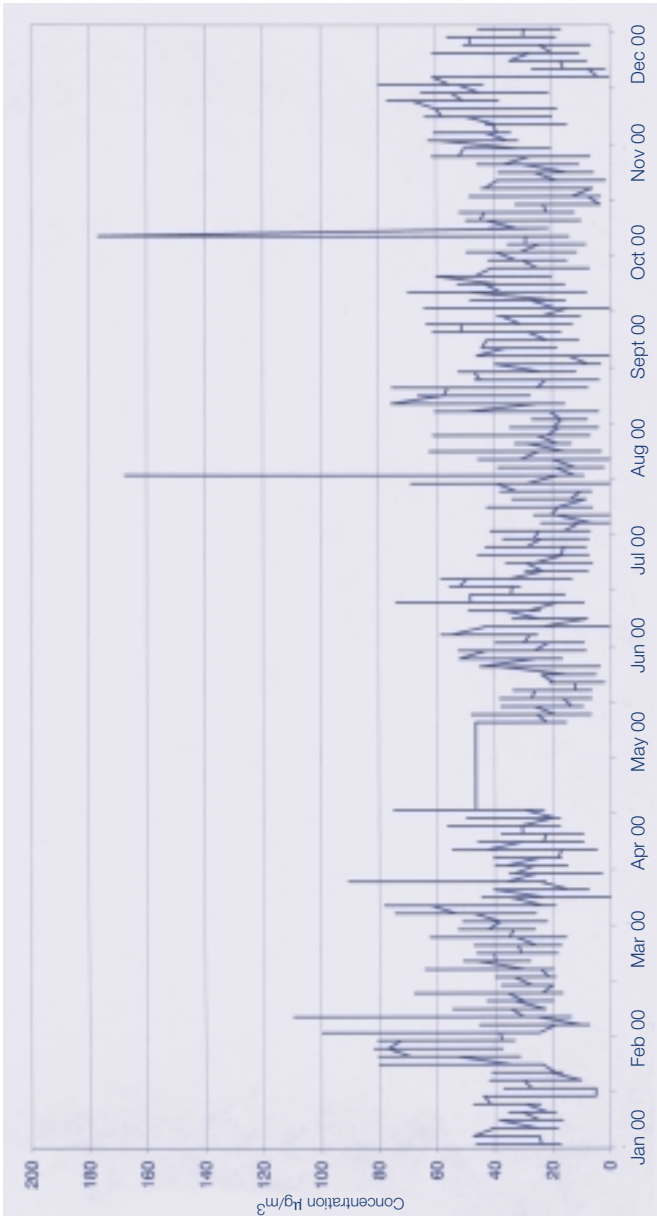
The annual mean 2005 target is 21 ppb. The annual mean for 2000 was 31ppb.
There were no exceedences of the 2005 Target value of 105 ppb.
This target should not be exceeded more than 18 times a year.

Sulphur Dioxide 2000



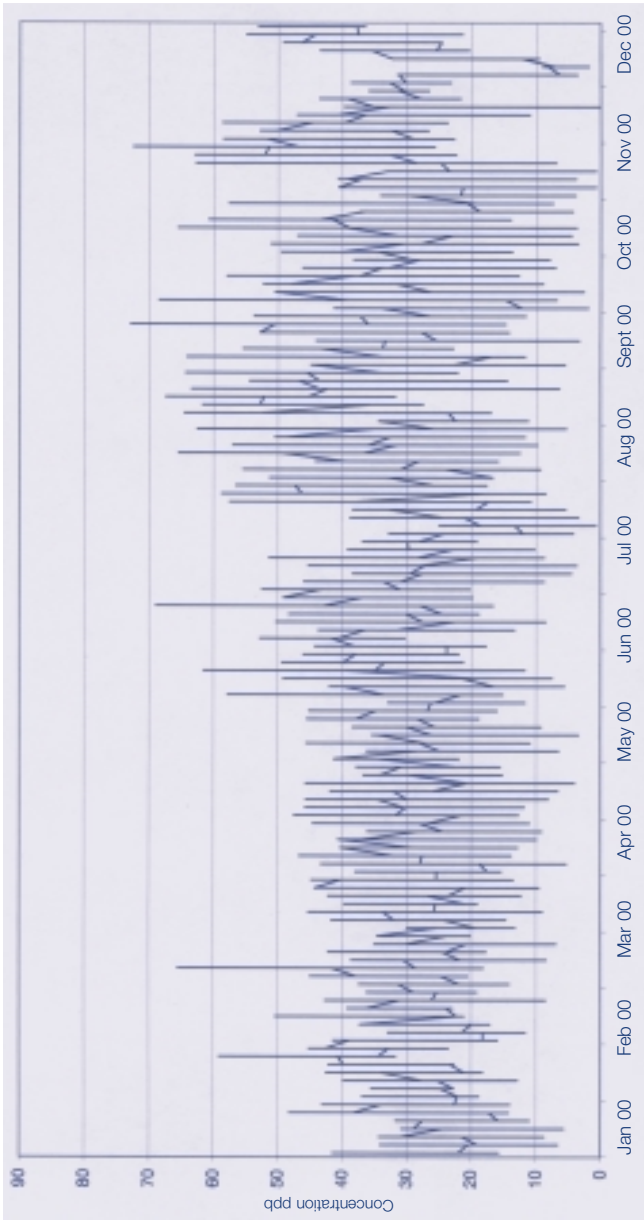
The annual mean for 2000 was 4 ppbb
The 15 minute Mean 2005 Target of 100 ppbb should not be exceeded more than 35 times a year.
There were no exceedences of this target at this site.

Fine Particles (PM10) 2000



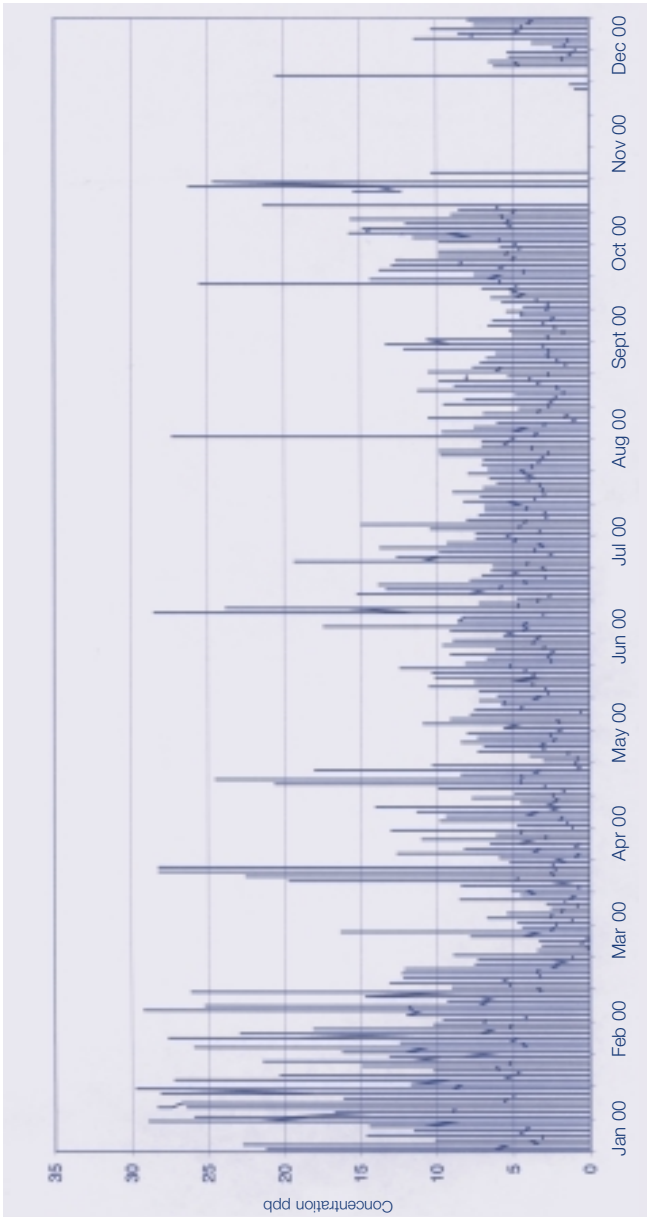
The annual mean 2005 Target is $40 \mu\text{g}/\text{m}^3$. The annual mean for 2000 was $35 \mu\text{g}/\text{m}^3$.
The 24 Hour Mean 2005 Target of $50 \mu\text{g}/\text{m}^3$ should not be exceeded more than 35 times a year.
There were 49 exceedences at this site during 2000.

Nitrogen Dioxide 2000



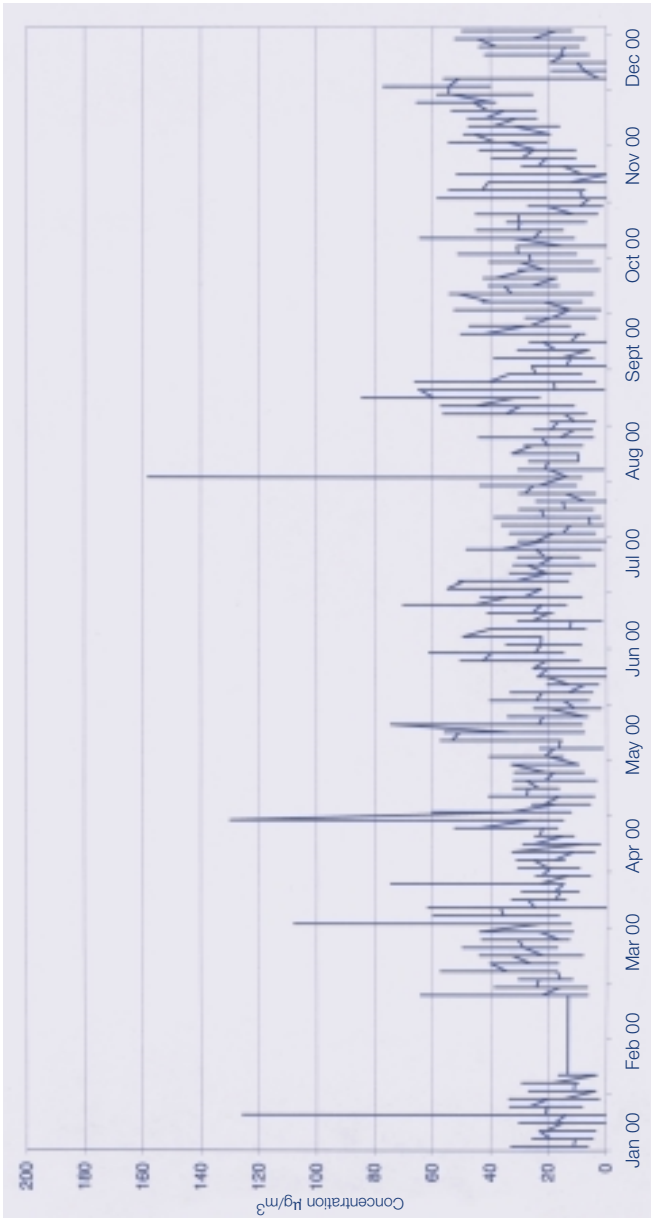
The annual mean 2005 target is 21 ppb. The annual mean for 2000 was 32 ppb.
There was one exceedance of the 2005 Target Value of 105 ppb.
This target should not be exceeded more than 18 times a year.

Sulphur Dioxide 2000



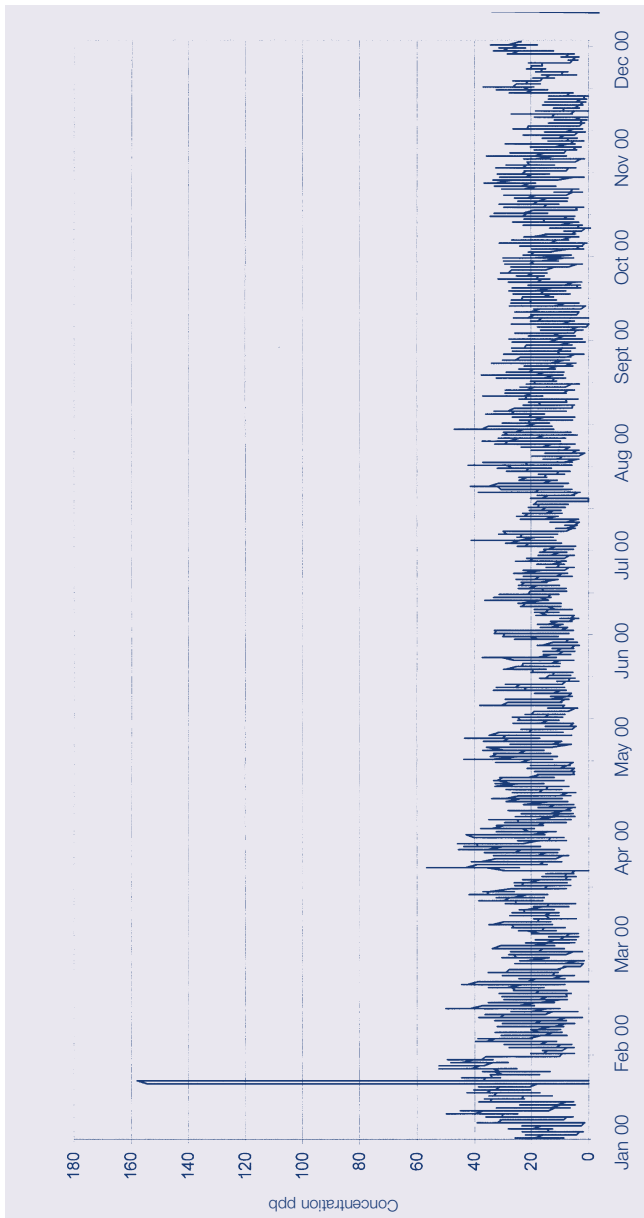
The annual mean for 2000 was 5 ppb.
The 15 minute Mean Target of 100 ppb should not be exceeded more than 35 times a year.
There was no exceedence of this target at this site.

Fine Particles (PM10) 2000



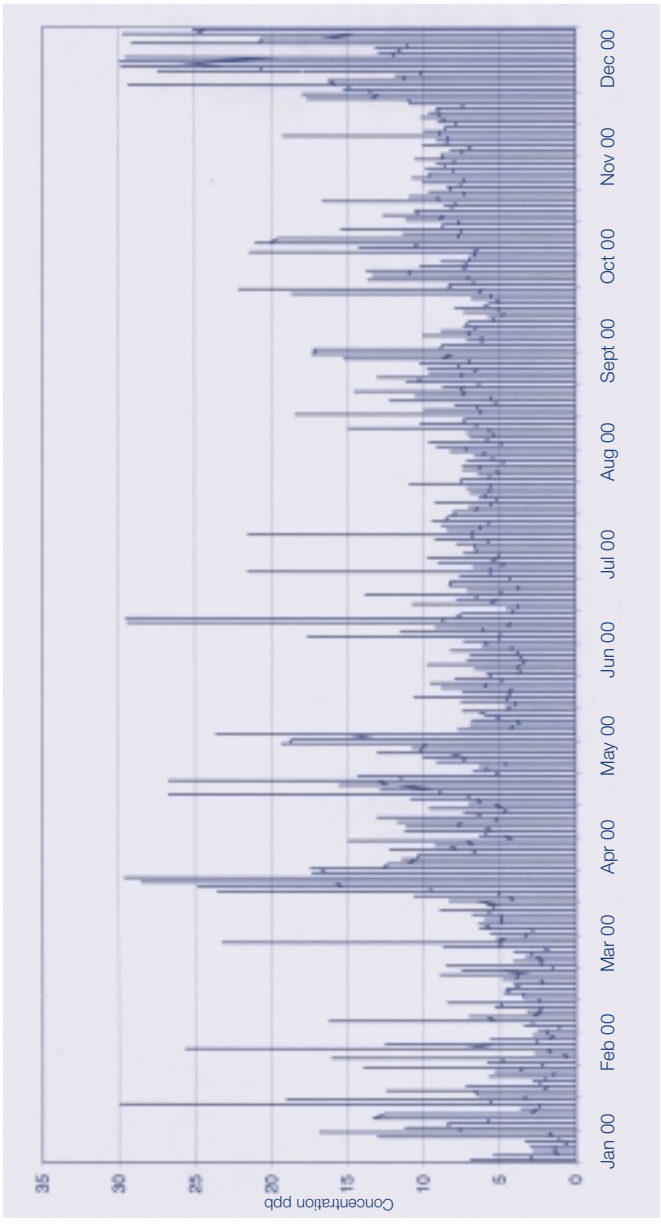
The annual mean 2005 Target is $40 \mu\text{g}/\text{m}^3$. The Annual Mean for 2000 was $25 \mu\text{g}/\text{m}^3$.
The 24 hour mean 2005 Target of $50 \mu\text{g}/\text{m}^3$ should not be exceeded more than 35 times a year.
There were 22 exceedences at this site during 2000.

Nitrogen Dioxide 2000



The annual mean 2005 Target is 21 ppb. The annual mean for 2000 was 17 ppb.
There were 2 exceedences of the 2005 Target Value of 105 ppb.
This target should not be exceeded more than 18 times a year.

Sulphur Dioxide 2000



The Annual Mean for 2000 was 6 ppb.
The 15 minute mean 2005 Target of 100 ppb should not be exceeded more than 35 times a year.
There were no exceedences of this target at this site.

The future

In 2000 Lambeth published its Third Stage Review and Assessment of Air Quality. Using monitoring data and computer modelling it was possible to predict pollution levels for the target years of 2004/5. The results showed that two pollutants, nitrogen dioxide and fine particulates, would not meet government standards by the target dates.

Lambeth must declare the areas that are not going to meet the government objectives as Air Quality Management Areas (AQMA's). In January 2001 the proposal for Lambeth's AQMA's was sent out for consultation.

The next steps will be to formally designate the AQMA's. However, the AQMA's only identify where there is an air quality problem - we still need to find the solutions to improve it. First we need to look more closely at pollution sources and levels within our AQMA's and then work will begin on drawing up Action Plans which will set out the measures that need to be taken to reduce pollution levels to within acceptable limits.

Since pollution does not respect boundaries the Action Plan is likely to cover the whole of the borough and likewise individual boroughs will need to work closely with other London boroughs to ensure that their action plans are complementary and consistent. It is intended that the work of the Central London Cluster Group will be continued in order to co-ordinate actions to improve air quality across London.

Since the main source of pollutants is motor vehicles, Lambeth's action plans will look at measures that will reduce traffic and lower exhaust emissions. The type of air quality management issues that may be included are:

- Improving public transport and encouraging more people to use it
- Planning restrictions on traffic movement and car free developments
- Improving walking and cycling facilities
- Encouraging the use of low polluting vehicles (electric/gas).

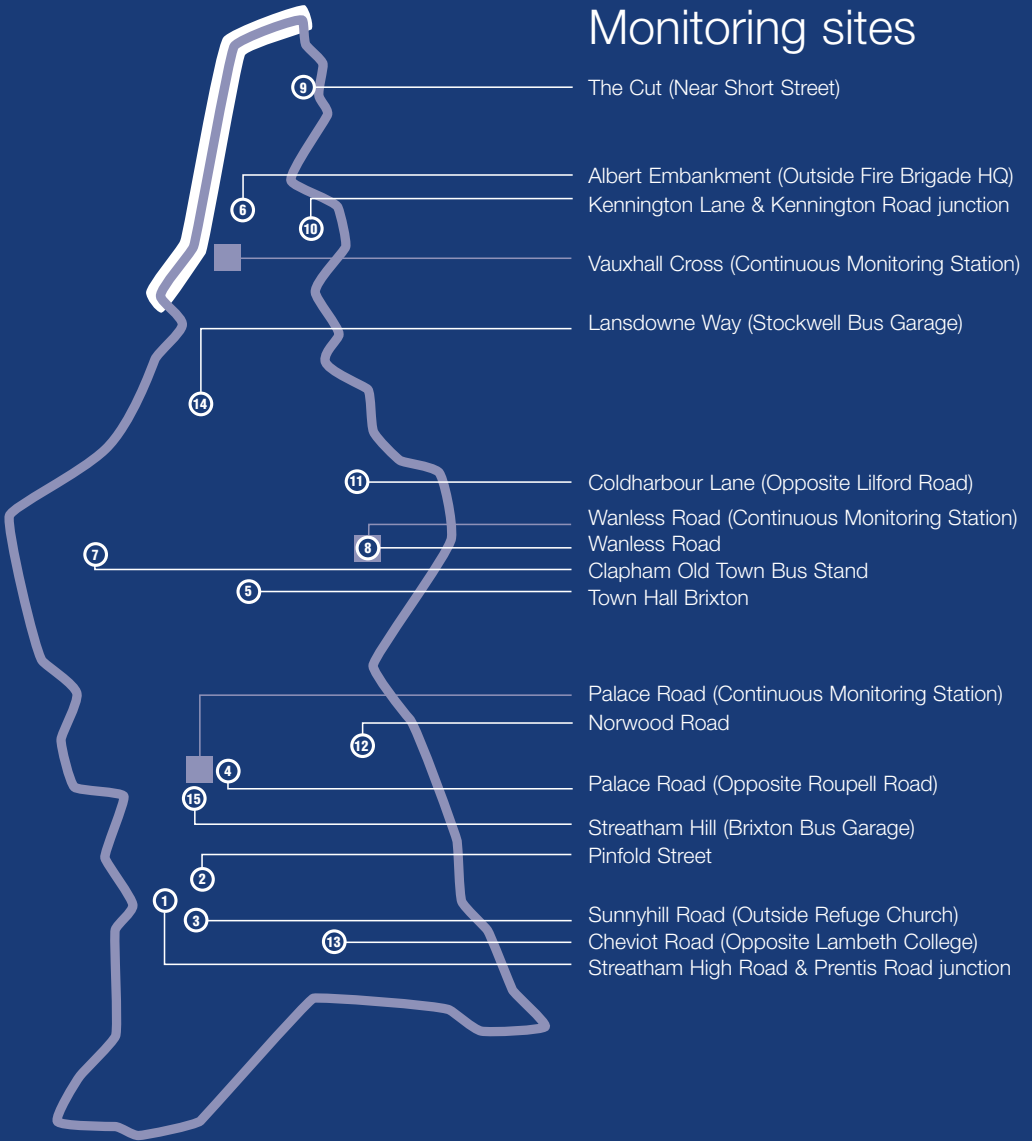
Consultation with the public and interested groups will be an important part of the process and we will be asking for your comments and views on our Action Plan Strategy towards the end of next year.

Let us know your views

All enquiries regarding air quality
Gill Narramore
Environmental Health Officer
London Borough of Lambeth
Regulatory Services
2 Herne Hill Road
London SE24 OAU

Telephone 020 7926 6111

Monitoring sites



○ Passive monitoring took place at 15 sites

■ Continuous monitoring took place at 3 sites

Air quality is compared to the targets set by the Government's National Air Quality Strategy to be achieved by the end of 2005.

