

Annual Air Quality Report

2004

Issue 1.9 Final

Introduction

All local authorities are required to undertake regular reviews and assessments of air quality within their areas according to a timetable set out by central government.

This report is in two parts. Part 1 presents a summary of the Air Quality monitoring results for the borough during 2004. Part 2 outlines the progress that has been made in implementing the borough Air Quality Action Plan.

In 2004 there were three episodes of poor air quality that affected parts of the borough. As in previous years, there were also a number of pollution incidents measured at some (but not all) sites in the borough where air quality levels breached the moderate, high and very high bands that the Government uses to define air quality.

This banding is known as Public Dissemination Banding, which has been designed to provide a readily understandable matrix for people who are sensitive to air pollution. The bands together with the potential ill health effects are set out in the table 1 below:

Banding	Index	Health Descriptor
Low	1	Effects are unlikely to be noticed even by individuals who know they are sensitive to air pollutants
	2	
	3	
Moderate	4	Mild effects, unlikely to require action, may be noticed amongst sensitive individuals.
	5	
	6	
High	7	Significant effects may be noticed by sensitive individuals and action to avoid or reduce these effects may be needed (e.g. reducing exposure by spending less time in polluted areas outdoors). Asthmatics will find that their 'reliever' inhaler is likely to reverse the effects on the lung.
	8	
	9	
Very High	10	The effects on sensitive individuals described for 'High' levels of pollution may worsen.

Table 1. Public Dissemination Banding.

Part 1 - Air Quality Assessment and Review 2004

An initial Air Quality Management Area (AQMA) was declared for parts of the borough in 2001. The area was subsequently extended to include all of Lambeth in 2003 when it became clear that predicted improvements in motor vehicle engine emission technology were unlikely to give the benefits originally anticipated and there was thus a likelihood that national air quality objectives would continue to be exceeded.

Following declaration of the AQMA, the Council was required to produce a local Air Quality Action Plan. The plan was adopted in 2003 and aims to reduce emissions of air pollutants to meet national air quality objectives within the borough. A number of measures were identified which when implemented would have the effect of reducing road traffic generated pollution. The Council is not legally required to achieve the objectives but must make every effort to do so.

An Updating and Screening Assessment (USA), was undertaken within the borough in 2004 and the report is available on the Councils website.

As part of this latest review new planning developments that might affect air quality in the borough have been listed and commentary on the likely impact of the development is provided.

The aim of this document is to report on the progress in achieving the National Air Quality Objectives and implementing the Lambeth Air Quality Action Plan. Our approach has been to compare the objectives (as set out in table 2 below) with the levels of pollutants recorded locally.

The Pollutants

Road traffic continues to be the primary cause of air pollution in London and in Lambeth over 90% of all air pollution is caused by road vehicles. Vehicle pollutants of greatest concern are Nitrogen Dioxide, Fine Particles (PM₁₀), Carbon Monoxide and Volatile Organic Compounds such as Benzene and 1, 3-Butadiene. Ozone is also a pollutant of some concern.

Nitrogen Dioxide

NO₂ is largely a secondary pollutant formed by the oxidation of Nitrogen Oxide (NO). In Lambeth, road transport is the dominant source of oxides of Nitrogen (NO_x). This is reflected in the general distribution of NO₂, with the greatest annual mean concentrations being measured near roads and in central London locations.

The National Air Quality Strategy stipulates two objectives for NO₂:

- (i) An annual mean of 21ppb (40 µg/m³) and
- (ii) An “incident based” Objective of 104.6ppb (200 µg/m³) as an hourly mean not to be exceeded more than 18 times a year.

Fine Particles (PM₁₀)

Unlike other air pollutants, fine particles which are known as PM₁₀, do not comprise a single defined chemical compound like for example Sulphur Dioxide. The composition of PM₁₀ varies with location, time of year and during episodes of poor quality. PM₁₀ can often contain a mixture of primary sources, which tend to be locally emitted from vehicle exhausts, as well as secondary sources (mainly from distant sources) and coarse particles whose origin can be further afield. In addition there is increasing evidence that PM₁₀ levels can be significantly elevated by local building and road works.

There are two Air Quality Standards for PM₁₀. These are in line with EC Daughter Directive – Stage Limit Value for PM₁₀:

- (i) An annual mean of 40 µg/m³.
- (ii) An incident-based objective of 50 µg/m³, measured as a daily mean not to be exceeded on more than 35 days a year.

Sulphur Dioxide

The distribution of Sulphur Dioxide (SO²) concentrations is influenced by both road traffic and industrial point sources. Road traffic is the main factor influencing annual mean concentrations, whereas industrial point sources can produce short-term high values due to plume grounding. The annual mean concentrations of SO² do not vary to a large extent over London.

The Air Quality Strategy stipulates three objectives for SO²:

- (i) No more than 24 occurrences of an hourly mean of >150 µg/m³.
- (ii) No more than 3 days where the daily mean >125 µg/m³.
- (iii) No more than 35 occurrences of 15min mean >267 µg/m³.

Ozone

Ozone is caused by complex reactions in the atmosphere involving a cocktail of combustion generated pollutants. In the presence of sunlight and high temperatures chemical reactions take place in which Ozone gas (O₃) is formed. Ozone is often described as a seasonal pollutant, with the highest concentrations being recorded during the summer months. It is also a regional pollutant, with episodes of high concentrations often extending over hundreds of miles.

The greatest concentrations of Ozone have, in recent years, been measured at sites in outer London and the Home Counties, with somewhat lower levels being recorded in Lambeth and other inner London boroughs. Significant local variations in Ozone concentrations have also been reported. In heavily trafficked areas this is believed to be due to the scavenging effect of NO close to NO_x emission sources, for example at roadsides, which has the effect of lowering Ozone levels around the immediate area.

The Air Quality Strategy has a single objective of 100 µg/m³ (50ppb) measured as a rolling 8 hr mean, which should not be exceeded on more than 10 days a year.

Benzene

The main source of Benzene in the UK is the combustion and distribution of petrol, of which Benzene is a minor constituent. Petrol is the only product marketed to the general public in the UK in which Benzene is present in more than trace amounts. There are no specific industrial processes in Lambeth emitting quantities of Benzene such as oil refineries. Although national policies already in hand should continue to reduce future concentrations of Benzene, Lambeth has been monitoring long term levels of Benzene at 15 sites in the borough since 1997.

The major health risk associated with low-level exposure to Benzene is leukaemia. Based on data from the Institute for Environment and Health, estimated exposure to Benzene for the general population is three times less than the lowest exposures reported to be associated with adverse effects.

The Air Quality Strategy has a single objective of 16.25 µg/ m³ on an Annual Running Mean.

Carbon Monoxide

Carbon Monoxide (CO) is a toxic gas which is emitted into the atmosphere as a result of combustion processes. It is also formed by the oxidation of hydrocarbons and other organic compounds. In Lambeth, CO is produced almost entirely from car and lorry engines although it is eventually oxidised naturally in the air to Carbon Dioxide (CO₂). High levels of CO can prevent the normal transport of oxygen by the blood. This can lead to a significant reduction in the supply of oxygen to the heart, particularly in people suffering from heart disease.

The Air Quality Strategy has a single objective of:

- (i) 10 mg/m³ (8.6 ppm) maximum on a daily running 8 hour Mean

Air Quality Objectives within London

Air Quality Objectives are health based standards which have to be achieved by a given date. These objectives must continue to be met beyond the deadline. Objectives have been set with different time averaging periods for each pollutant. The different averaging periods reflect the way in which some pollutants may be harmful to health over relatively short exposure times. Table 2, identifies the pollutants of concern and the relevant information in relation to the each of the objectives.

Pollutant	Concentration	Measured as	Date to be achieved
Benzene	16.25µg/m ³	running annual mean	31.12.2003
	5.00µg/m ³	annual mean	31.12.2010
1,3-butadiene	2.25µg/m ³	running annual mean	31.12.2003
Carbon Monoxide	10 mg/m ³	max daily running 8hr 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 (not to be exceeded more than 18 times per year)	1hr mean	31.12.2005
	40 µg/m ³	annual mean	31.12.2005
Particles (PM ₁₀)	50µg/m ³ (not to be exceeded more than 35 times per year)	24 hr mean	31.12.2004
	40µg/m ³	annual mean	31.12.2004
Sulphur Dioxide	350 µg/m ³ (not to be exceeded more than 24 times per year)	1 hr mean	31.12.2004
	125µg/m ³ (not to be exceeded more than 3 times per year)	24 hr mean	31.12.2004
	266 µg/m ³ (not to be exceeded more than 35 times per year)	15 minute mean	31.12.2005

Table 2.

For two pollutants –Particles (PM₁₀) and Polycyclic Aromatic Hydrocarbons (PAHs), further objectives have been set. These have not yet been incorporated within the Air Quality Regulations and are shown in table 3 below. Local Authorities are however being encouraged to work towards these objectives.

Pollutant	Concentration	Measured as	Date to be achieved
Particles (PM ₁₀)	50 µg/m ³ not to be exceeded more than 10 times per year	24 hr mean	31.12.2010
	23 µg/m ³	annual mean	31.12.2010
	20 µg/m ³	annual mean	31.12.2015
Polycyclic aromatic hydrocarbons (PAH)	25 µg/m ³	annual mean	31.12.2010

Table 3. Objectives adopted but not yet incorporated within the Air Quality Regulations.

An objective for a further pollutant, Ozone (O₃), is shown in table 4. This has not been adopted for the purposes of local air quality management because of the difficulties of dealing with it at a local level. A brief section on the assessment of PAH and Ozone has been included within this document, for information purposes only.

Pollutant	Concentration	Measured as	Date to be achieved
Ozone	100µg/m ³ not to be exceeded by more than 10 times a year	Daily maximum 8 hour mean	31.12.2005

Table 4.

Monitoring Air Quality in Lambeth

This section considers pollution monitoring results and trends in Lambeth. Additional data have been obtained from other monitoring stations located close to the borough boundary and supplemented with further data from other sites in central London where necessary.

Active and Passive Air Quality Monitoring

Air Quality Monitoring is carried out using both active and passive monitoring techniques. Active real time monitors sample the air around them 24 /7. The location of the monitors is shown on the attached map at Appendix 1 to this report. The locations have been chosen to provide a useful contribution to the London Wide Air Quality Network, as well as provide valuable real time air quality information covering arterial roads (kerbside) main roads (roadside) and less busy (urban background) sites in the borough. The Lambeth active monitors measure levels of Nitrogen Dioxide (NO²) Particulates (PM₁₀), Sulphur Dioxide (SO²). In addition Carbon Monoxide (CO) is measured at the Crystal Palace site.

Passive (non- continuous) monitoring is also undertaken from an additional 15 sites in the borough. These sites are also shown on the map at Appendix 1. These sites monitor Nitrogen Dioxide, Sulphur Dioxide, and Benzene. Two sites additionally monitor Ozone levels.

Commentary on National 2004 Results

Nationally there were fewer days of moderate or higher air pollution in 2004 than were recorded in 2003. In urban areas in 2004, air pollution was recorded as moderate or higher on 22 days on average per site, compared with 50 days in 2003, 20 days in 2002 and 59 days in 1993. In rural areas, the figure for 2004 was 42 days on average per site, compared with 61 in 2003 and 30 in 2002. The number of days has fluctuated between 21 days in 1987 and a high of 61 days in 2003.

Lambeth 2004 Results

Table 5 below shows the number of days where air pollution was measured as being moderate or above on the Public Dissemination Banding in Lambeth

Pollutant	Location	Days Moderate	Days High	Days Very High
Nitrogen Dioxide	Christchurch Road (R)	0	0	0
	Vauxhall Cross (R) ¹	N/A	N/A	N/A
	Loughborough Junction (U)	0	0	0
	*Brixton Road (K)	244	1	0
	*Crystal Palace (R)	0	0	0
Particulate Matter (PM₁₀)	Christchurch Road (R)	54	9	25
	Vauxhall Cross (R)	N/A	N/A	N/A
	Loughborough Junction (U)	41	1	2
	*Brixton Road (K)	147	69	22
	*Crystal Palace (R)	2	0	0
Sulphur Dioxide	Christchurch Road (R)	0	0	0
	Vauxhall Cross (R)	N/A	N/A	N/A
	Loughborough Junction (U)	0	0	0
	*Brixton Road (K)	0	0	0
	*Crystal Palace (R)	0	0	0

Key: Levels 1 to 3 = Low Levels 4 to 6 = Moderate Levels 7 to 9 = High Level 10 = Very High
 R = Roadside Site K = Kerbside Site U = Urban Background Site

* The Crystal Palace and Brixton Road Data must be considered with care as the data have not yet been fully ratified

The Following tables show the results of each active monitoring station in Lambeth and to what extent the National Air Quality Objectives were met in 2004.

¹ Note Vauxhall Cross site switched off during construction of Vauxhall Cross Interchange. Replacement Site back on stream as at February 2005.

Lambeth 1 – Christchurch Road (Roadside)

Pollutant	Objective	Result	Achieved Objective
Nitrogen Dioxide	Annual Mean not exceeding 40 µg/ m ³	53	NO
Nitrogen Dioxide	No more than 18 occurrences of hourly Mean >200 µg/ m ³	0	YES
PM ₁₀ Particles	Annual Mean less than 40 µg/ m ³ (gravimetric)	31	YES
PM ₁₀ Particles	No more than 35 days where daily Mean >50 µg/ m ³ (gravimetric)	40	NO
Sulphur Dioxide	No more than 35 days where daily Mean > 350 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 3 days where daily Mean > 125 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 35 occurrences of 15 min Mean >267 µg/ m ³	0	YES

Table 6.

Lambeth 3 Loughborough Junction (Urban Background)

Pollutant	Objective	Result	Achieved Objective
Nitrogen Dioxide	Annual Mean not exceeding 40 µg/ m ³	34	YES
Nitrogen Dioxide	No more than 18 occurrences of hourly Mean >200 µg/ m ³	0	YES
PM ₁₀ Particles	Annual Mean less than 40 µg/ m ³ (gravimetric)	27	YES
PM ₁₀ Particles	No more than 35 days where daily Mean >50 µg/ m ³ (gravimetric)	27	YES
Sulphur Dioxide	No more than 35 days where daily Mean > 350 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 3 days where daily Mean > 125 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 35 occurrences of 15 min Mean >267 µg/ m ³	0	YES

Table 7.

Lambeth 4 – Brixton Road (Kerbside)

Pollutant	Objective	Result	Achieved Objective
Nitrogen Dioxide	Annual Mean not exceeding 40 µg/ m ³	187	NO
Nitrogen Dioxide	No more than 18 occurrences of hourly Mean >200 µg/ m ³	350	NO
PM ₁₀ Particles	Annual Mean less than 40 µg/ m ³ (gravimetric)	56	NO
PM ₁₀ Particles	No more than 35 days where daily Mean >50 µg/ m ³ (gravimetric)	187	NO
Sulphur Dioxide	No more than 35 days where daily Mean > 350 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 3 days where daily Mean > 125 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 35 occurrences of 15 min Mean >267 µg/ m ³	0	YES

Table 8.

Crystal Palace (Roadside)

Pollutant	Objective	Result	Achieved Objective
Carbon Monoxide	No occurrences of rolling 8 hr Mean >10 µg/ m ³	0	YES
Nitrogen Dioxide	Annual Mean not exceeding 40 µg/ m ³	48	NO
Nitrogen Dioxide	No more than 18 occurrences of hourly Mean >200 µg/ m ³	0	YES
PM ₁₀ Particles	Annual Mean less than 40 µg/ m ³ (gravimetric)	26	YES
PM ₁₀ Particles	No more than 35 days where daily Mean >50 µg/ m ³ (gravimetric)	5	YES
Sulphur Dioxide	No more than 35 days where daily Mean > 350 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 3 days where daily Mean > 125 µg/ m ³ (gravimetric)	0	YES
Sulphur Dioxide	No more than 35 occurrences of 15 min Mean >267 µg/ m ³	0	YES

Table 9.

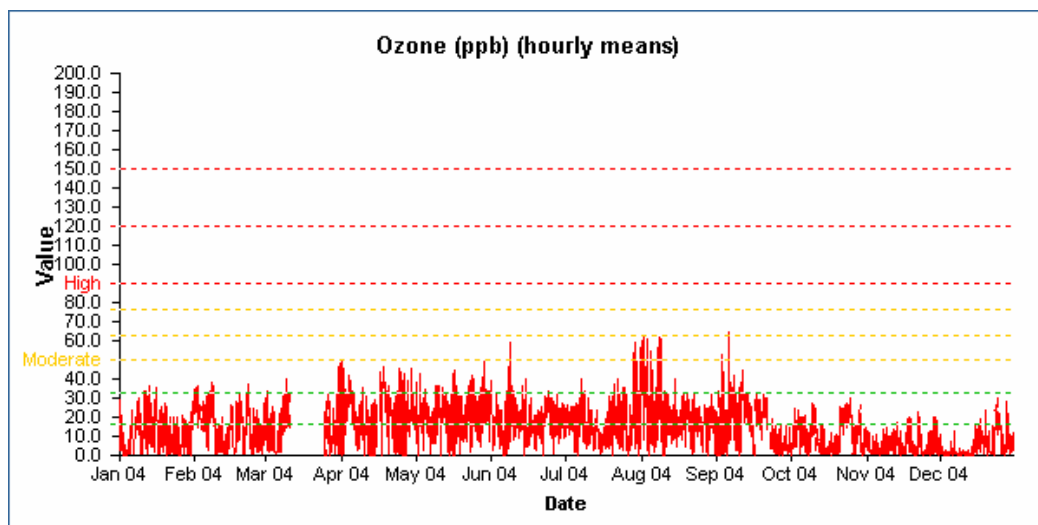
Commentary on Results

Ozone

High levels of Ozone were measured across the UK at the end of July and early August 2004. The UK AURN² network recorded Ozone levels in index 7 of the Defra HIGH band (90-119 ppb, 180-239 $\mu\text{g m}^{-3}$) between 28th July and 10th August (a 14 day episode).

Measured Ozone levels during the episode did not exceed the population warning threshold (an hourly mean concentration in excess of 360 $\mu\text{g m}^{-3}$ or 180 ppb) and therefore did not trigger an alert. The 3rd Daughter Directive (Directive 2002/3/EC) on Ozone in ambient air also established a stricter alert threshold of 240 $\mu\text{g m}^{-3}$ (120 ppb) as an hourly average over three consecutive hours. This alert threshold was not exceeded, during the episode.

The Nearest Ozone Active Monitoring Station to Lambeth is located close to the borough boundary with the London Borough of Southwark. Reference to chart 1 below shows how although Ozone levels were elevated they did not reach the levels reported elsewhere in the South East.



Location: Elephant and Castle

Chart 1.

² AURN = Urban and Rural Monitoring Network (AURN)

Particles

Reference to PM₁₀ monitoring data (chart 2) shows that during the first week of August, PM₁₀ levels at the Lambeth sites were elevated. Those at Brixton Road and Christchurch Road were significantly above the 24 hour average objective values.

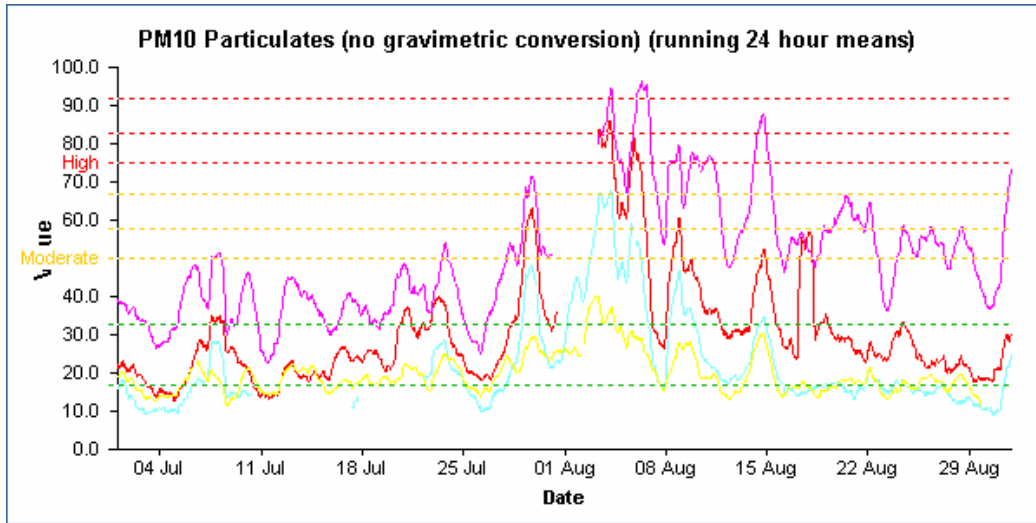


Chart 2.

High levels of particles were again recorded on the 5th November. Chart 3 below shows this.

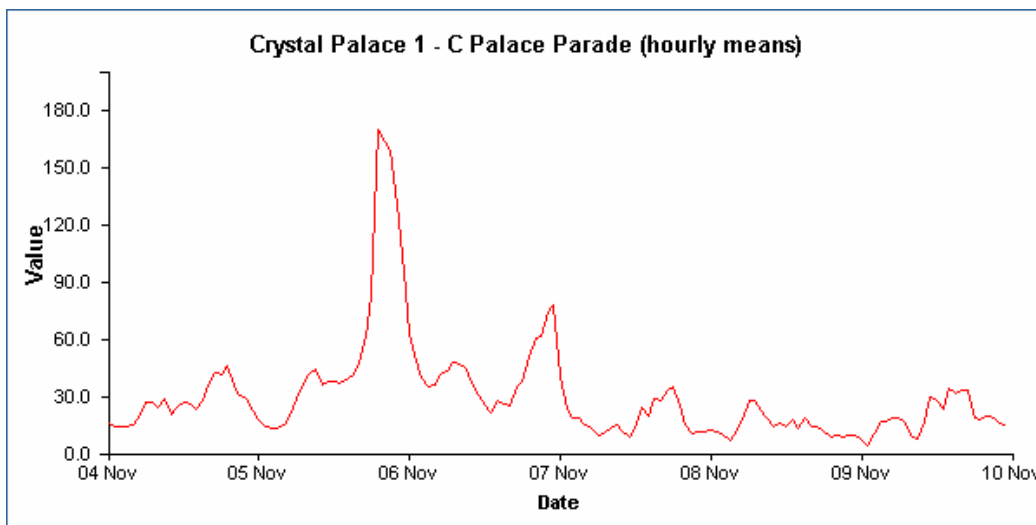
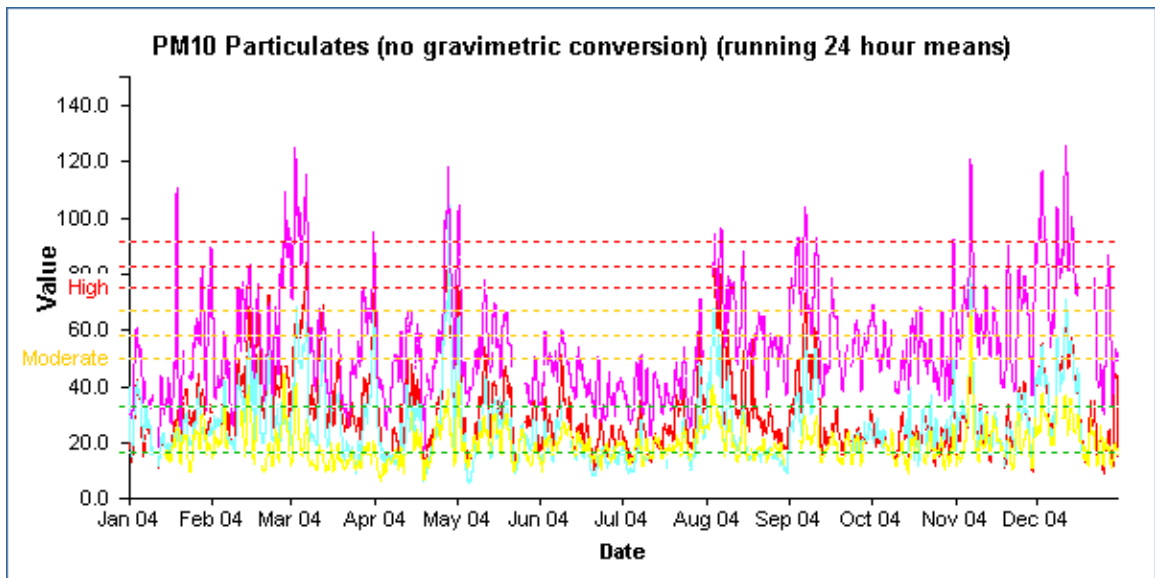


Chart 3.

Particulate Matter has been measured in the borough since 1999. In 2004 average levels of PM10 in the borough were significantly lower than in 2003. A number of high short term peaks were recorded (mainly at the Brixton Road site). Experience has shown that these short term events can often be caused by local roadworks or construction activity.

The following chart shows that all of the Lambeth continuous monitoring sites exceeded the national target of less than 35 days where the daily mean is greater than 50 microgrammes per cubic metre. The Brixton Road Continuous monitoring result exceeded the national objective of having an annual mean less than 40 microgrammes per cubic metre.

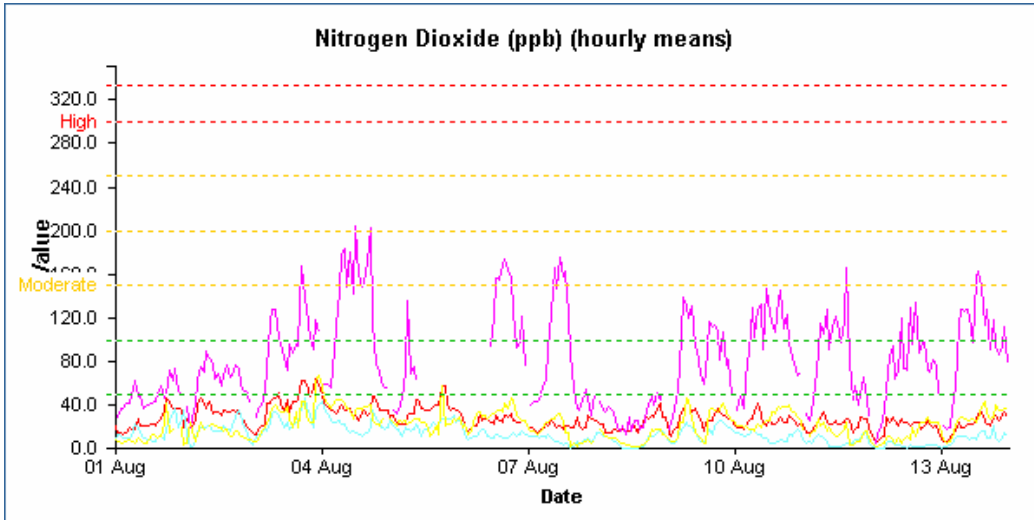


Key: Palace Road Loughborough Junction Brixton Road Crystal Palace

Chart 4

Nitrogen Dioxide

Although some peaks were recorded at the Brixton Road kerbside site, other locations did not show significant variation particularly during the late July / Early August period when high levels of Ozone were recorded, as shown in the following chart (chart 5).

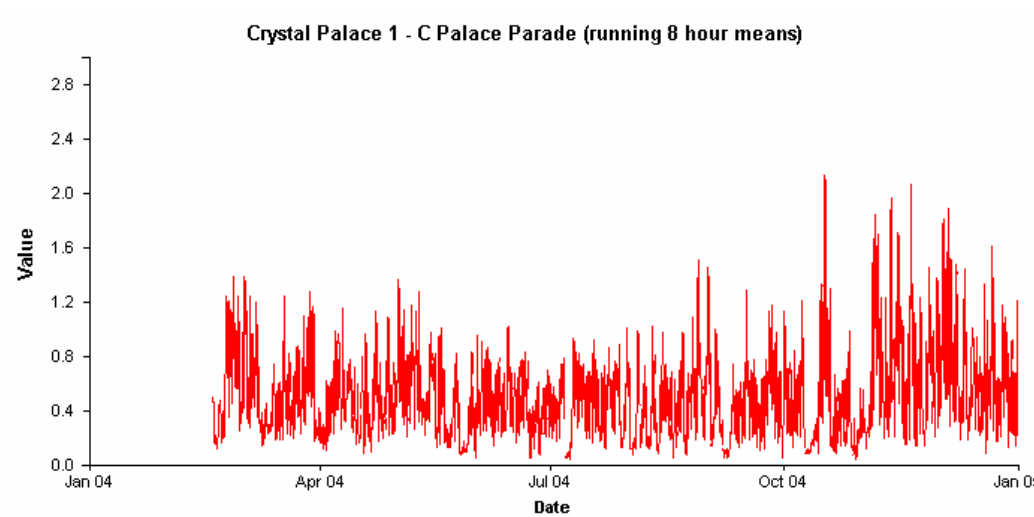


Key **Brixton Road** **Christchurch Rd** **Loughborough Junction** **Crystal Palace**

Chart 5. Brixton Road Kerbside Site.

Carbon Monoxide

CO is actively monitored at the Crystal Palace Roadside site. Levels during 2004 were similar to previous years and well within the Objective values, (8.6ppm). This can be seen in chart 6.



Key: Carbon Monoxide (ppm)

Chart 6. Crystal Palace Roadside Site.

Sulphur Dioxide

Levels of Sulphur Dioxide measured at all continuous monitoring sites in the borough were low. The National Objective levels for Sulphur Dioxide were achieved.

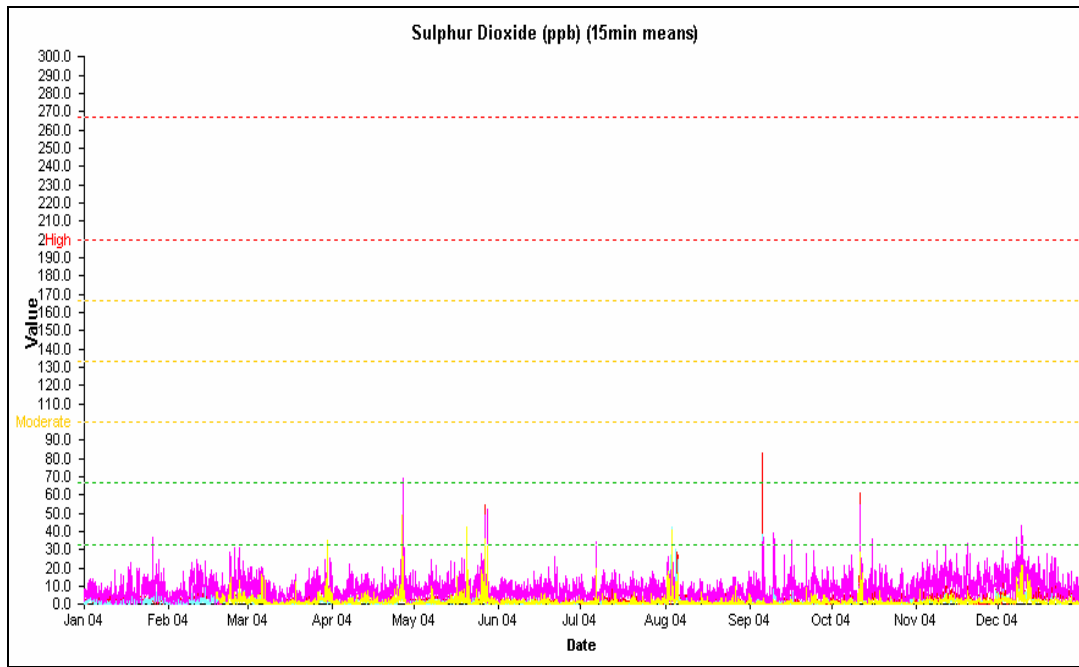


Chart 7

(Non Continuous Monitoring Results)

Diffusion tube monitoring for 2004

We undertake sampling at fifteen locations using passive diffusion tube samplers. The tubes are exposed for a 4/5 week period approximating to a calendar month.

Diffusion tubes are a cost-effective method for assessing a range of air pollutants. Although this method is less accurate than fully automated techniques, the diffusion tube method tends to under-estimate concentrations. It is however possible to factor the results to account for known differences in the methodologies. For example a factor of 1.11 has been used for NO₂ 2004 data.

Benzene Results 2004

Two objectives have been set for the assessment of Benzene – a running annual mean of 16.25µg/m³ to be met by December 2003 and a newer, more stringent annual mean of 5µg/m³ to be achieved by December 2010.

ANNUAL MEAN BENZENE CONCENTRATIONS - 2004

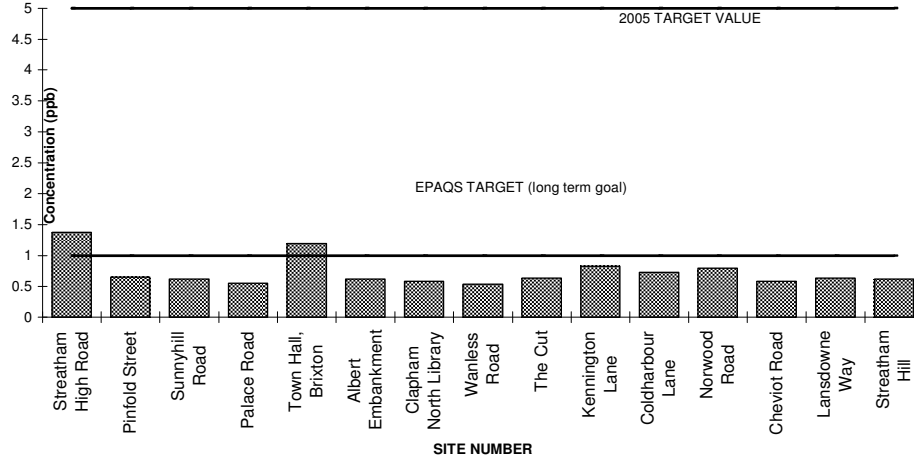
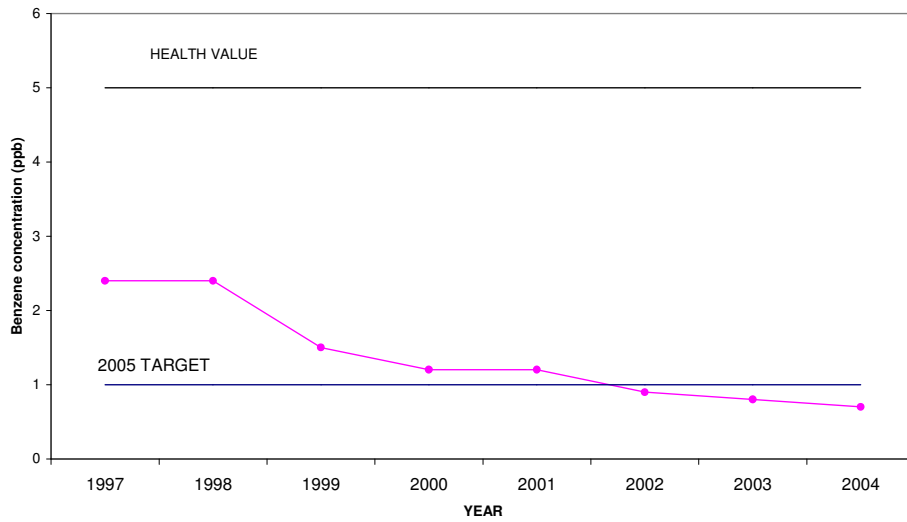


Chart 8. Annual average benzene levels using diffusion samplers

ANNUAL MEAN BENZENE CONCENTRATIONS 1997 - 2004



Note: Benzene 1 ppb = 3.25 $\mu\text{g m}^{-3}$ 1 ppb = 3.19 $\mu\text{g m}^{-3}$

Chart 9. Benzene

Chart 9 above shows a steady downward trend. The results also show that the 2005 objective has been met at all sites since 2002.

Nitrogen Dioxide

Passive diffusion tubes have been used to monitor Nitrogen Dioxide in the borough since 1992.

Table 2 of this report sets out the two different objectives for Nitrogen Dioxide (NO₂); a short term objective of 200µg/m³ not to be exceeded more than 18 times per year as a one hour mean, and a longer term objective of 40µg/m³ as an annual mean, both to be achieved by the end of 2005.

The data indicates that the annual mean objective was exceeded at all main road locations in 2004 and overall results for the borough were above the 2005 target level. However chart 10 shows a downward trend in mean concentration levels over the borough as a whole and the results are consistent with those previously discussed from the active monitoring stations located within the borough.

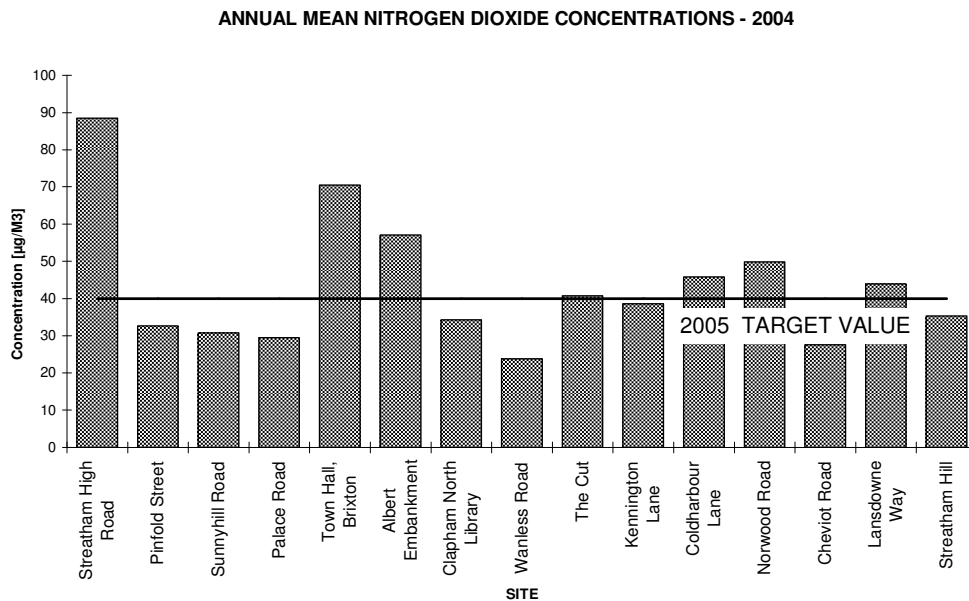


Chart 10. Nitrogen Dioxide

ANNUAL MEAN NITROGEN DIOXIDE CONCENTRATIONS 1992 - 2004

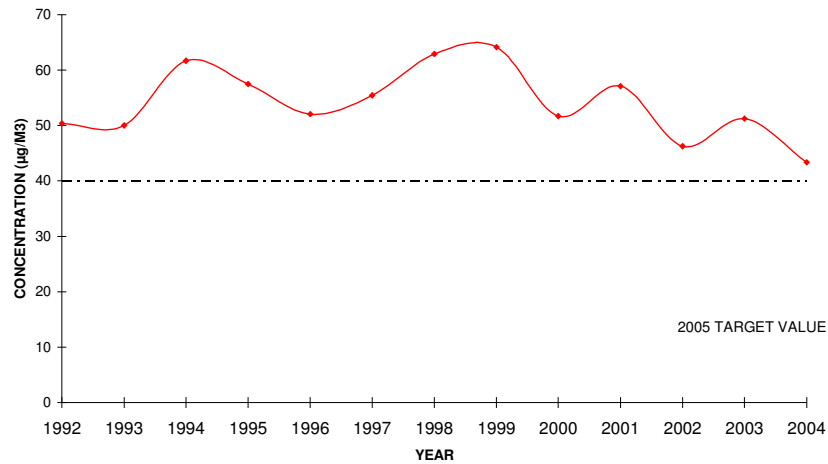


Chart 11.

Sulphur Dioxide

Three objectives have been set for this pollutant; a one hour mean of $350 \mu\text{g}/\text{m}^3$ (not to be exceeded more than 24 times per year), a 24 hour mean of $125 \mu\text{g}/\text{m}^3$ (not to be exceeded more than 3 times per year) and a 15 minute mean of $266 \mu\text{g}/\text{m}^3$ (not to be exceeded more than 35 times per year).

Monitoring of Sulphur Dioxide has been undertaken since 1992. The monitoring data have shown that annual average and peak levels have declined substantially. This has been largely due to the switch from coal and oil for heating to gas from both domestic and commercial sources. Last years results did however continue the trend established in 2002 which has seen a year on year increase in mean levels on a borough wide basis, as shown in chart 12 below.

ANNUAL MEAN SULPHUR DIOXIDE CONCENTRATIONS 1953 - 2004

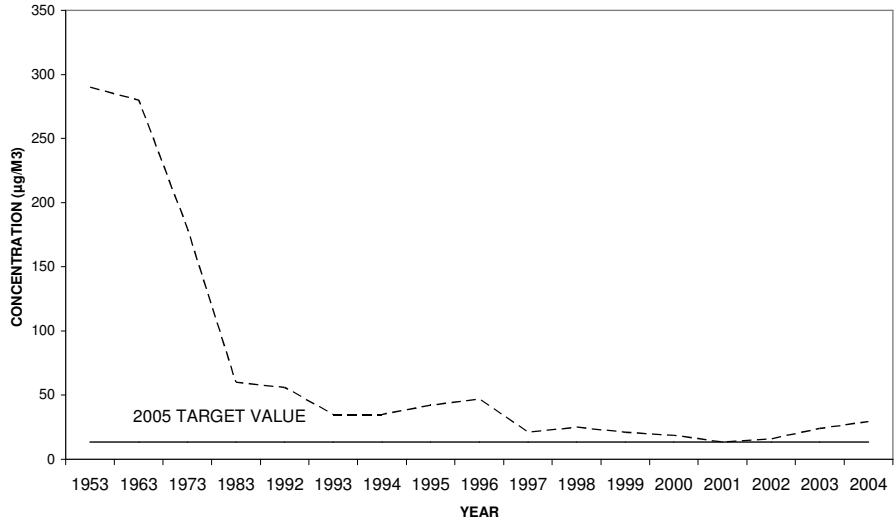


Chart 12. - Annual Mean Sulphur Dioxide Concentrations

Annual Mean Sulphur Dioxide Concentrations

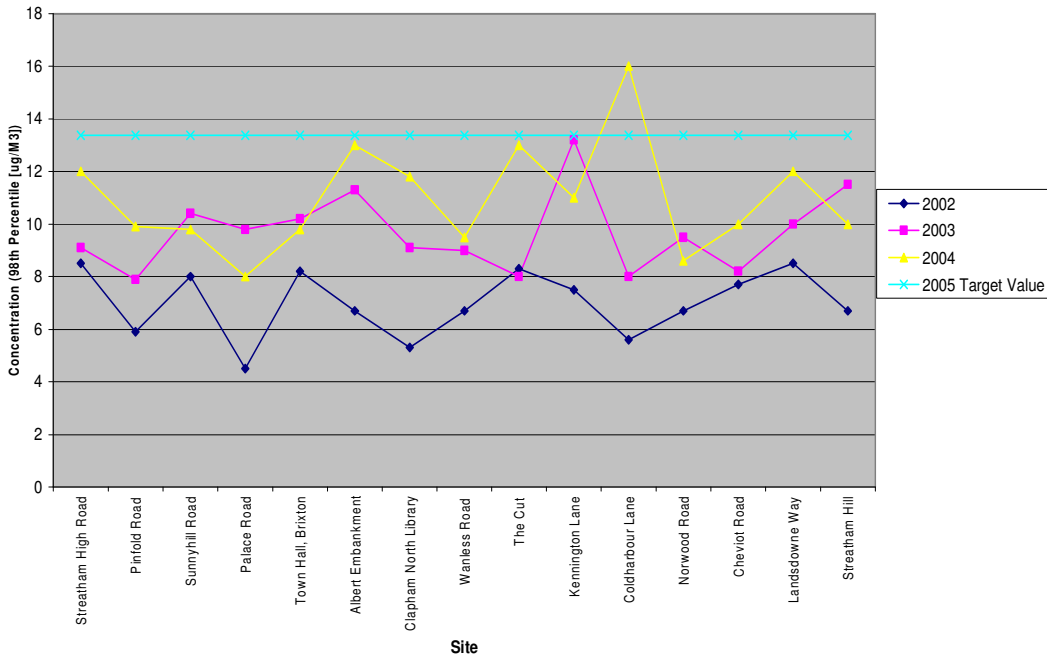


Chart 13

Chart 13 above, shows mean Sulphur Dioxide Concentration at the non continuous monitoring sites for the years 2002, 2003, 2004. It is can be seen that at some sites there has been an apparent year on year increase in mean concentrations. Although small annual variations between sites are to be expected, increased levels at for example the Coldharbour Lane site are counter intuitive when set against national action to reduce Sulphur levels in diesel fuels. At the time of writing this report the reasons for this anomaly are unclear. There are general concerns as to the accuracy of the 2004 Sulphur Dioxide diffusion tube data, and these are the subject of further investigation.

Based on the data from both our automatic monitoring stations and that of other neighbouring boroughs, we are however confident that Sulphur Dioxide standards are not being breached in the borough.

Ozone

Ozone is one of group of secondary pollutants. It is formed during periods of warm sunny weather in the presence of other necessary “precursor pollutants”. In recognition that the precursor pollutants may frequently cross regional and national boundaries efforts to control Ozone are being undertaken at a European level. Chart 13 below shows how mean Ozone levels measured by diffusion tubes over the borough have increased slightly in recent years.

Monitoring is undertaken at two locations using diffusion tubes. Chart 14 shows the results for 2004. Unlike most pollutants, Ozone levels tend to be depressed at locations close to busy main roads. This is because oxides of Nitrogen (NOx) emitted from vehicle exhausts will scavenge Oxygen molecules from Ozone and thus reduce its level.

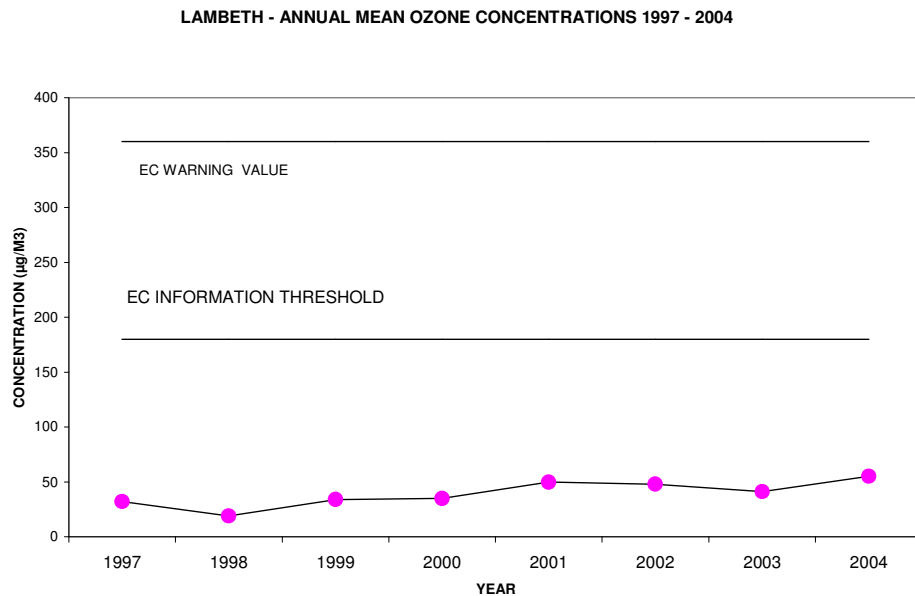


Chart 14.

ANNUAL MEAN OZONE CONCENTRATIONS - 2004

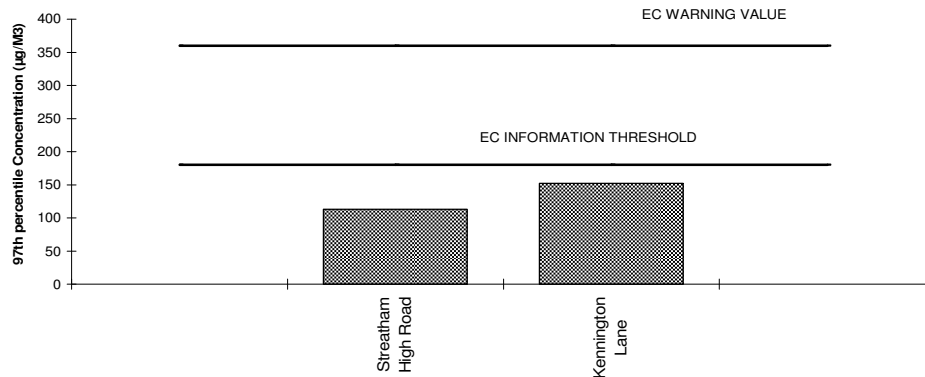


Chart 15.

Point Sources of Air Pollution - Authorised Industrial Activities -Part A and Part B processes

There are no Part A processes operating or planned in the borough. Currently there are 25 authorised Part B processes; these have been operating for some time. All are regularly inspected. With the introduction of the Solvents Emission Directive, we are in the process of identifying and authorising all dry cleaners that operate in the borough. There are currently 105 dry cleaners that may require a permit by October 2006. These will be considered in detail as part of the next updating and screening assessment.

Planning Developments

A number of conditional planning permissions have been granted, these require the applicants to undertake an air quality assessment. Whilst this does not necessarily mean that the development will have a negative impact on air quality, the Council wishes to be assured that air quality impacts for some types of developments are henceforth considered objectively. The table below lists some of these:

Address	Scope of Proposed Development
York House, Lambeth Palace Road	Demolition of York House and erection of new office building comprising basement, ground, plus part 10/13 Storeys, (31,732m ² of B1) with class A1/A3 uses.
Westminster Bridge Roundabout	Demolition of existing Island Block building and the construction of a 913 bed hotel.
South Bank University Site, Wandsworth Road	The partial demolition, conversion and extension of the existing building to create 12 studio flats, 116 one bedroom flats, 102 two bedroom flats and duplexes, 1655m ² of A1 floor space, 1310m ² of A3/A4 floor space, 702m ² of B1.D1/D2 floor space and a theatre.

Lambeth Housing Initiatives

Lambeth has adopted a proactive stance in the use of sustainable energy solutions in its own housing stock. It is promoting the use of Solar Photovoltaics, (PV) and we have been working hard with great success to install PV roofs. We have been able to secure more grants for PV than any other London borough. Lambeth also has the largest green re-roofing project in the country currently underway as part of the regeneration of the Ethelred Estate. The following table gives some examples of these initiatives.

Address of development	Type of development
Tomkyns House, (45 dwellings) Warwick House, (18 dwellings) Langholm Close, (43 dwellings)	Use of Solar Photovoltaics, (PV) roofs.
Tomkyns House, Banesbury Close, 24 Sheltered housing dwellings	Use of Solar Water Heating Systems. Installed for elderly residents under the “Clear Skies” Program.
RouPELL Park	Community Heating and Combined Heat and Power, (CHP). A highly efficient way of producing electricity at point of use and reducing primary energy usage by 35%. As well as cost savings, the project is predicted to reduce CO ² emission by 30-50%.
Rusper Park, (undergoing feasibility study) William Bonney Estate, (undergoing feasibility study)	Community Heating and Combined Heat and Power, (CHP).
Ethelred Estate, Kennington	Green Roof Systems. Green roofs have many major benefits; importantly the vegetation on the green roof has proven to reduce atmospheric pollution by filtering particulates and absorbing gaseous pollutants. It is estimated that Ethelred’s 4000m ² green roof will reduce carbon dioxide emissions by 26,000kg a year.

Transport and Road Improvements

The Council is actively involved in promoting improvements to the road network in the borough where these are forecast to reduce congestion and promote the use of public transport, cycling and walking. Improvements are also planned at a number of major junctions which are designed to reduce congestion and speed up flow in the bus network. Some of examples are:

Development	Description of Scheme
Vauxhall Cross	<p>The Vauxhall interchange has been completed. This involved the construction of the new public transport interchange and canopy (with innovative PV) panels to provide power to the traffic controls. The benefits of the interchange are:</p> <ul style="list-style-type: none"> • easier access to, and change between bus, Tube and rail • improved bus services • better traffic flow - improved road layout, with new traffic light system • additional facilities - taxi ranks. • the photovoltaic technology on the roof of the structure converts sunlight into electricity, generating 30% of the energy required to power the bus station area <p>the project is a catalyst for regeneration in the area</p>
Brixton Town Centre Road Scheme	<p>Traffic flow changes in side roads and Brixton Central. The development comprises road widening schemes, new traffic islands, pedestrian zoning, cycle facilities, bus lanes and bus stops, and a new area for Brixton Square.</p>
Schools	<p>Schools Travel Plan, implemented to promote walking and cycling to school.</p>
Central Brixton – Scoping Study for Emissions Reduction Strategy	<p>Air Quality Management- Transport Emissions Options Strategy 2004. This was an investigation as to the feasibility of various options to improve air quality in relation to emissions derived from the road transport sector.</p>
Lambeth Travel Without Polluting	<p>Scheme funded through Transport Local Implementation Plan to be launched in November 2005. The scheme seeks to raise awareness of modes of transport and the effect on air quality.</p>

Conclusions.

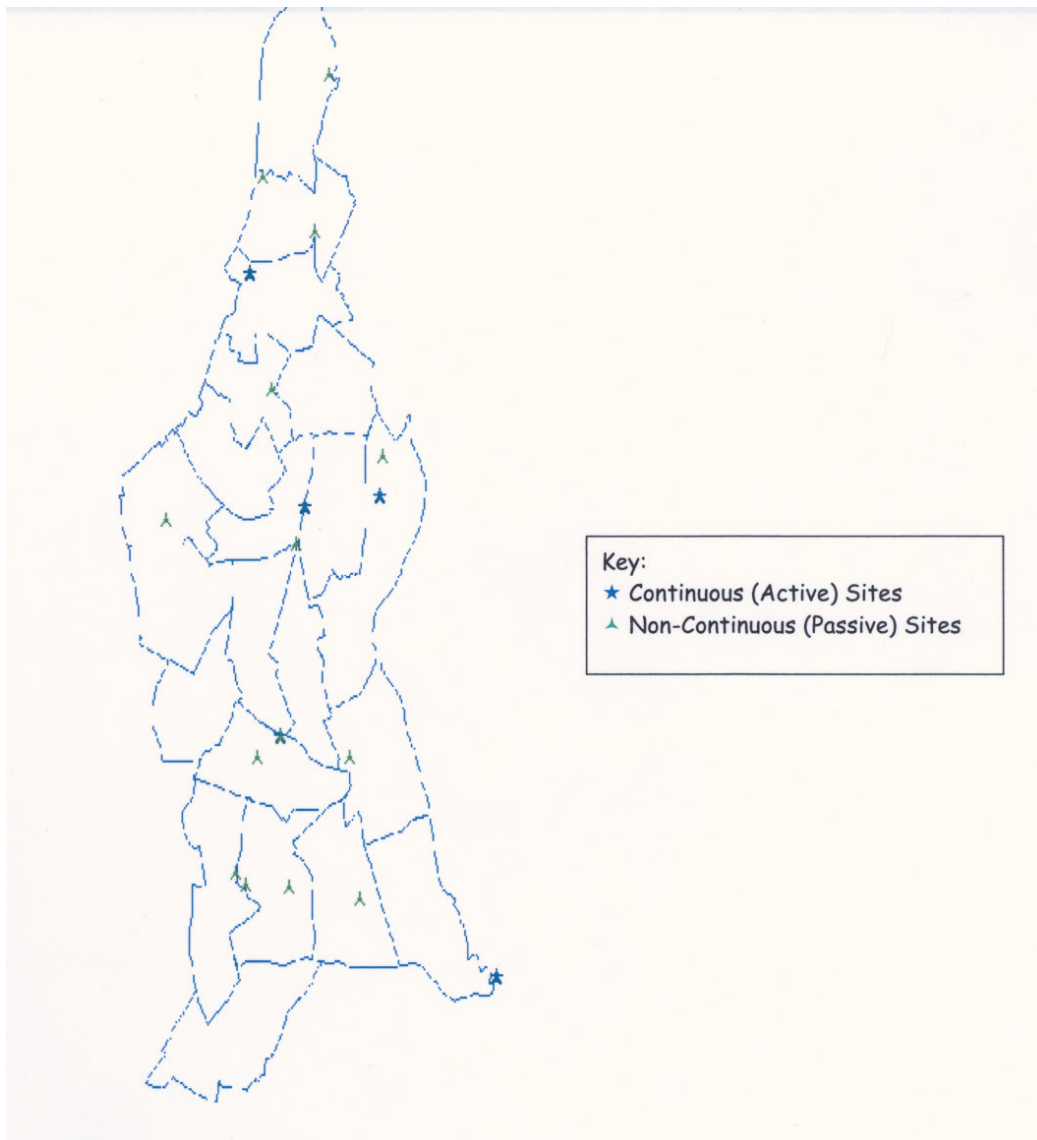
Two years have passed since the final version of the Council's Air Quality Action Plan was published, and we have made good progress with the majority of the 33 actions. Where actions have not been taken forward, these are due to a conscious decision that with the benefits of further research and study the proposals are no longer considered viable. For example, regarding the installation of electric charging points in car parks, a feasibility study showed that as technology is moving towards hybrid vehicles, the market for electric vehicles is unlikely to be viable into the future.

Despite the progress in implementing our Action Plan, air quality concentrations of the pollutants of most concern are not significantly improving. This is common across London and is mainly due to the fact that although a number of actions within the plan seek to reduce traffic volumes, which in turn should result in a reduction in emissions from vehicles, a reduction in emissions, does not give a proportional reduction in pollution concentrations. This is due to a combination of complex atmospheric reactions, the weather and the way that pollutants behave across regional boundaries.

We also acknowledge that some actions we are taking can only have a limited impact on air quality in the borough, However we remain committed to them where there are good reasons for undertaking them, such as leading by example and perhaps encourage visitors, other organisations and businesses to reduce their impact on air quality.

Appendix 1.

Monitoring Location Map



Technical Appendix

Conversion Factors for Pollutants

EC Standards for Pollutants	World Health Organisation (WHO) Standards
20° C and 1013mb	25° C and 1013mb
Ozone 1 ppb = 2.00 $\mu\text{g m}^{-3}$	ppb = 1.96 $\mu\text{g m}^{-3}$
Nitrogen dioxide 1 ppb = 1.91 $\mu\text{g m}^{-3}$	1 ppb = 1.88 $\mu\text{g m}^{-3}$
Carbon monoxide 1 ppm = 1.16 mg m ⁻³	1 ppm = 1.15 mg m ⁻³
Sulphur dioxide 1 ppb = 2.66 $\mu\text{g m}^{-3}$	1 ppb = 2.62 $\mu\text{g m}^{-3}$
1,3-butadiene 1 ppb = 2.25 $\mu\text{g m}^{-3}$	1 ppb = 2.21 $\mu\text{g m}^{-3}$

Annual Air Quality Report

Part 2 –

Progress with the Air Quality Action Plan

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
C: High	1. Proposal: Low Emission Zone	<p>The Council will continue to work with the ALG, GLA and other London Boroughs in assessing the feasibility of a introducing a London – wide LEZ</p> <p>The Council will implement the scheme if the proposal is shown to be viable following the results of the feasibility study.</p>	<p>Participation in and support for the feasibility study</p> <p>Provide air quality and traffic data to support the feasibility study and implementation of the LEZ</p>	<p>Pollution Section – Regulatory Services,</p> <p>Transport and Highways</p>	<p>On going</p> <p>No date for implementation yet available</p>	<p>Awaiting decision to go ahead from Government</p> <p>No date for implementation</p>
C: High (Est. funding of £30m to 2004) ER: High (for individual vehicles)	2. Proposal: Promotion of cleaner vehicle technologies and alternative fuels	<p>The Council will promote the environmental and financial benefits to both its staff and other organisations through its travel plans strategy</p> <p>The Council will lobby the Government and GLA to encourage the increased uptake of cleaner vehicles and fuels and to provide the necessary infrastructure to support such expansion</p> <p>Support the GLA and TfL in their efforts to achieve a programme of replacement to Euro2 + RPC and increasing the use of water-diesel emulsion by 2005</p>	<p>Introduce travel information into staff induction packs</p> <p>Response to future consultation documents</p> <p>Consultation and liaison groups</p>	<p>Culture Change Board</p> <p>Regulatory Services – Pollution Section</p> <p>Transport and Highways</p>	<p>March 2003</p> <p>On going</p> <p>2005</p>	<p>Staff Travel Plan in place</p> <p>No new initiatives from Government – “Powershift” government grants scrapped.</p> <p>On going</p>
C: High (but EST. funding and offset by low fuel costs)	3. Proposal: Replace Council’s own vehicle fleet with green fuelled fleet	<p>Provide properly equipped cars/ vehicles (using zero or very low emission fuels) for duties where it is deemed essential for a vehicle to be used</p> <p>When appropriate but before March 2007, only pay expenses to staff who use their own vehicle to work duties if that vehicle is using zero or very low emission fuels</p> <p>Due to the above mentioned action, begin the phase out of essential user car allowances as the staff receiving them are provided with the use of low emission pool vehicles</p> <p>Continue with the programme of converting its own fleet to zero or low emission vehicles</p> <p>Investigate the feasibility of replacing the Mayors car with a low emission vehicle.</p>	<p>Each business unit to provide sufficient pool vehicles to allow essential visits to be covered using low emissions transport.</p> <p>Negotiations with Senior Management Board and Unions will be needed before implementation can proceed</p> <p>Review of car allowance system</p> <p>Rate of implementation depends upon availability of vehicles and the renewal dates of current contracts</p> <p>Team Lambeth to investigate if a suitable low emissions vehicle is available to replace the Mayors Car which comes up for renewal of the Lease in July 2002</p>	<p>Each Directorate</p> <p>Cultural Change Board</p> <p>Corporate</p> <p>Each Directorate</p> <p>Mayors Office</p>	<p>Cost Benefit Analysis by March 2003</p> <p>March 2007</p> <p>March 2007</p> <p>March 2003</p> <p>Implementation started- Final completion date March 2005</p>	<p>Fleet replacement on going with new LPG and LNG vehicles</p> <p>Not pursued.</p> <p>As above</p> <p>In progress</p> <p>New Mayoral car now LPG powered</p>

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
		Commitment to the minimum standard for the Council vehicle fleet and those of any contractors of Euro2 + RPC or Euro2 by 2005			Investigate feasibility May / June 2002	New Service Provider – Project on going
C: High (but EST. funding and offset by low fuel costs)	4. Proposal: Encourage greater availability of green fuels throughout the borough	The Council will approach local fuel providers to encourage them to stock fuels such as LPG Any new development including proposals for a filling station will be required though the planning system to stock LPG The Council will investigate the installation of electric charging points in its car parks to facilitate the lease of electric pool vehicles	Promotional leaflet to be produced and circulated to local fuel providers UDP Policy – through the planning process Investigate costs and practicalities of providing charging points for electric cars pool	Sustainable Development Policy Officer/ Pollution Team Regeneration and Planning Facilities Manger	December 2003 December 2003 December 2003	Done Electric cars unlikely to be as popular as predicted in 2001. No further action taken for pool cars.
H: High (but Govt funded £0.5m bid to DfT for 2 yr joint testing programme) ER: Low (although may have a significant effect on requiring improvements in individual vehicles)	5. Proposal: Support a London wide approach to Vehicle Emissions Testing	The Council will carry out vehicle emissions testing within its Air Quality Management Areas in order to enforce the vehicle emissions standards (with a target to carrying out 18 test days per year within the borough) The Council is supporting and participating with the ALG joint working party in developing a detailed proposal and costings for a coordinated London-wide programme of testing The Council will bid for the full Government (DTLR) funding of a 2 year programme of testing	The Council will adopt new legal powers to enforce exhaust emissions standards	Pollution Team, Regulatory Services Pollution Team ALG working party /Pollution Team	Adopt new powers May 2002 Commence Test programme April 2003 Funding to support year London-wide programme secured October 2002	Done participated in the London wide emissions testing initiative 2003 -2004 Awaiting further Government future years
	6. Proposal: Implementation of traffic reduction measures	The Council endorse the concept of traffic reduction in Lambeth through policies in the UDP	The UDP incorporates the mechanisms for achieving targets set within the framework of the Mayors Transport Strategy and guidance from TfL The Statutory Road Traffic Reduction Report will be included as part of the BSP (Borough Spending Plan)	Regeneration and Planning Transport and Highways	December 2003 BSP for 2003/2004	Traffic Reduction Strategy embraced in Replacement UDP (2004) and carried forward into the Council's 2005 LIP Done

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
C: High ER: Low Area wide but may have high impact in localised areas such as car free developments	7. Proposal: Traffic reduction through land use planning	The Council will seek to reduce the impact of transport on the environment by coordinating land-use and transport so as to reduce the need to travel, and by encouraging more use of public transport, walking cycling and less car use.	Developing a programme of Home Zones and looking at the role of car free or car capped housing combined with on-street parking controls as a way of discouraging car dependency, reducing vehicle volumes and managing on-street parking stress associated with residential development Strategic proposals for improving the level and continuity of cycling provision along the major arteries in the borough, with some schemes designed and ready for construction	Regeneration and Planning	On going – Currently consulting on proposals On going	The 2004 Replacement UDP Policies 8 – 14 establishes the policy framework to deliver this objective Strategic proposals contained in the 2005 LIP for promotion and marketing of cycling
C: High for implementation but offset by revenue stream C: Low for individual vehicles ER: Low/med	8. Proposal: recognises Congestion Charging as a method of direct traffic restraint	The Council is working with TfL and others to study in more detail the effects of congestion charging in North Lambeth and along the principal routes into the north of the borough	Infrastructure works now in place throughout the central London charge area boundary to allow monitoring and enforcement of the scheme	GLA	On going	On going
	9. Proposal: Lambeth and neighbouring boroughs will work with the GLA and TfL to maximise the benefits and limit the potential negative impacts within the congestion charge area of North Lambeth	The Council is proposing a number of local actions through its UDP and BSP in support of the Mayors congestion charging scheme. These include A combination of area wide traffic management and street improvements to encourage through traffic to keep to the principal route network Review of Controlled Parking Zones in the north of the borough Improvements for pedestrians and cyclists combined with safety measures along on the Wandsworth Road Implement with TfL the Vauxhall “pod” Public Transport interchange and associated bus, cycle and pedestrian measures “Gating” traffic on radial routes to extend the traffic reduction benefits back into Lambeth	Congestion Charging and the infrastructure to support it implemented by the London Mayor The Council is seeking funding not only to implement these local supporting measures but also encouraging the Mayor to invest a proportion of congestion charging revenue within the street environment around the boundary in Lambeth for a number of years.	GLA / TfL Regeneration and Planning	Implemented Feb 2003 On going	Done On going Vauxhall Interchange now operational

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
		Working through the Cross River Partnership and with TfL to deliver Cross River Transit/The London Tram to provide quick and clean access into and across the proposed charge area.				
C; Medium ER: Low (depending on uptake)	10. Proposal: Lambeth will promote Workplace and School Travel Plans	<p>Introduce travel information into induction packs</p> <p>Audit and improvement to walking routes between council offices</p> <p>Audit and Improvements to cycle routes between council offices</p> <p>Investigate travel options for staff needing to work late</p> <p>Provide properly equipped cars/vehicles/ pool cycles (using zero or very low emission fuels) for duties where it is deemed essential for a vehicle to be used</p> <p>Review essential and casual car user allowance system</p> <p>Provide cycle parking facilities, shower and changing facilities at all sites where over 10 employees are based</p> <p>Introduction of car share data base for setting up car clubs</p> <p>Review cycle allowance/ cycle loan scheme</p>	<p>Lambeth has a strategy for promoting travel plans in its own offices and on other organisations within the borough</p> <p>We are working to:</p> <p>Ensure Travel Plans are produced and adhered to by developers and agreed as part of development control process</p> <p>Promote Travel Plans on a voluntary basis to existing employers through an awareness campaign involving publicity literature, presentations at business forums and employers groups.</p> <p>The promotion of Voluntary Travel Plans requires extensive time resource and funding to support awareness raising initiatives. The Travel Plan development is part funded by contributions from DTLR and TfL.</p> <p>Individual initiatives are to be funded from facilities budgets unless other funding sources can be found. Lambeth council will provide a specified travel plan budget to cover the initiatives listed</p>	<p>Cultural Change Board</p> <p>Transport \and Highways</p> <p>Transport and Highways</p> <p>Cultural Change Board</p> <p>Cultural Change Board Corporate Finance/ Travel Plans co-ordinator</p> <p>Each Directorate Facilities Manager</p> <p>Lambeth IT</p> <p>Cycle Officer</p>	<p>March 2003</p> <p>March 2004</p> <p>On going completion by March 2007</p> <p>March 2003</p> <p>March 2003</p> <p>December 2002 March 2004</p> <p>March 2007</p> <p>On going</p>	<p>Development of Green workplace travel plan incorporated into 2004 – 2007 Service Plan objectives.</p> <p>Council internal Travel plan to be rolled out during 2005.</p> <p>On going publicity encouraging Lambeth Businesses to prepare voluntary travel plans The Councils own Green Travel plan will be promoted to local businesses in 2005</p> <p>Funding via BSP Travel Awareness Allocation.</p> <p>No further action.</p> <p>On going</p> <p>On going</p> <p>Scheme in place</p>

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
		<p>Investigate the provision of an intranet based journey planning service</p> <p>Only pay expenses to staff who use their own vehicle for work duties if that vehicle is using zero or very low emission fuels</p> <p>Each year the Council will support international, national, and local promotional events to support sustainable travel and promote these to council staff e.g. Don't Choke Lambeth, Walk to School etc.</p>		<p>Transport and Highways /Lambeth IT</p> <p>Cultural Change Board</p> <p>Cultural Change Board</p>	<p>March 2007</p>	<p>On going</p> <p>Not taken forward</p> <p>Support given to National Car Free Day and In Town Without My Car Day 2003 /04</p> <p>Adoption of "Good Going"</p>
<p>C: Low/Med</p> <p>For Individual schemes offset by income from parking revenue</p> <p>ER: Low</p>	<p>11. The Council will manage the supply of parking spaces as a means of restricting traffic and promoting sustainable choices</p>	<p>The Council seeks to prioritise the use of existing spaces for the disabled, local residents and essential business use. Through the careful and strategic use of street parking regulations such as:</p> <p>Limiting parking supply at new developments</p> <p>Prioritising road- space for local communities e.g. Home Zones</p> <p>Special arrangements for deliveries by large vehicles</p> <p>Special parking arrangements at transport interchanges(e.g. tube and rail)</p>	<p>The London Mayor's Strategy sets out issues for the local authorities to incorporate within a fair and effective parking management system.</p> <p>The Council is now developing a strategy for parking in Lambeth that reflects the competing interests of road users in the Borough, as well as " promote sustainable transport choices and reduce reliance on the car for travel to work and other journeys"</p> <p>In managing the supply of parking places, the Council seeks to prioritise the use of existing parking space for the disabled, local residents and essential businesses</p>	<p>Regeneration and Planning/Highway s/TFL</p>	<p>Parking Strategy by March 2003</p>	<p>Parking & Enforcement Plan currently being finalised.</p> <p>Review of Lambeth policies on parking undertaken by The Parking Commission during 2004.</p>
<p>C: Low</p> <p>ER: Low</p>	<p>12 Proposal: The Council will develop its Parking Enforcement Plan to discourage commuter traffic and improve bus</p>	<p>The Council is currently developing a parking Enforcement Plan that aims to introduce consistent enforcement strategies across Lambeth</p> <p>The introduction of roadside camera (CCTV) enforcement on some of the busiest bus routes</p>	<p>Lambeth is currently consulting on its Parking Strategy. It will consider enforcement strategies for bus lanes (to improve bus journey times and reliability) and the use of CCTV to improve our ability to enforce parking restrictions across the Borough</p>	<p>Regeneration and Planning/Highway s /TFL</p>	<p>Parking Strategy by March 2003</p> <p>CCTV enforcement by December 2003</p>	<p>Anticipated that Lambeth Parking Plan is will be consulted on during and adopted during 2005</p> <p>Implemented</p>

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
	journey times/reliability	As a response to congestion changing, Lambeth will be reviewing the operation of Controlled Parking Zones (CPZ's) in the north of the borough and will be looking at the need for them at unofficial park-and-ride- locations around certain rail stations			In line with congestion charging timetable	
C: not known ER: low	13. Proposal: The Council will work with TfL to promote and implement a package of enhanced, intensified and enforced bus priority measures in the most heavily used bus routes	Expansion of the Bus Priority Network throughout Lambeth CCTV roadside camera enforcement on busiest routes Provision of more road space for buses and longer bus stop clearways (subject to impact on congestion) Extended bus lane operating hours Bus Plus routes will be introduced along some of the most heavily used bus route in Lambeth, which give enhanced bus priority	These measures are being delivered through the London Bus Initiative (a partnership between the London Boroughs and TfL) The Lambeth bus network must be planned and implemented to meet the changing demands and needs of its customers, and to integrate effectively with other modes. TfL will undertake research into bus travel patterns to ensure that it is customer-focussed, reflecting passenger needs and priorities, and responding to changes in local demand or operating conditions. Particular attention will be paid to developing routes that fit the real needs of all bus users.	TfL/Lambeth (London Bus Initiative)	Initial Target April 2003 with future funding on going programme of improvements	The Council continues to work with TfL. CCTV cameras / enforcement in place On going. The effective and appropriate enforcement of bus priority measures has been incorporated into Lambeth's parking enforcement plan.
C: Medium / High	14. Proposal: All bus routes will be effectively enforced to protect against illegal stopping and other traffic offences	As above	As above	As above		CCTV cameras/ bus lane enforcement now in place
C: High ER: Low	15. Proposal: Lambeth is supporting and developing the Cross River Transit/London Tram scheme	Working with TfL/ GLA to develop the new Tram link from Camden to Brixton The Council will look at the possibility of extending the link from Brixton to Streatham and Norwood and possible extensions to the Croydon Tram link	The Council will through its UDP process, safeguard the corridors for this scheme in terms of applications for other developments and streetscape. Parking proposals etc. along these routes The Council is proposing to undertake the study on service feasibility from Croydon to Streatham. Authorisation has now been given to	Council / TfL LB Lambeth/ LB Croydon /TfL		Policies in the 2004 Replacement UDP safeguard the route of the Proposed Cross River Transit. Lambeth 2005 LIP confirms that an extension along the A23 is not too difficult to implement and would provide major benefits to Streatham

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
			secure the Transport and works order to allow construction			Town.
C: High ER: Low	16. Proposal: Lambeth will work with the GLA and TfL in their programme of investment and expansion of the underground tube network as a means of enhancing more sustainable transport in London	The Council welcomes and supports the extension of the East London Line via Tulse Hill and Streatham to Wimbledon The Council will work with TfL to investigate the long term possibility of an additional extension of the East London Line to fit in with the Brixton hub proposals and the southwards extension of the Victoria Line to provide a new interchange at Herne Hill Station	Powers for the southern extension of the line are currently being sought by the GLA. If granted services could be operating on the line by 2006 Response to future consultation	Council/ GLA/TfL Council /TfL	2006 At discussion stage only	The Council continues to maintain that access to the East London Line Extension (ELLX) is viable either at Brixton or Loughborough. The Council welcomes further studies into these options.
C: High ER: Low	17. Proposal: Lambeth will pursue possibilities to improve rail services provision in the borough in order to promote rail travel as a viable alternative to the car	The Council is developing a number of proposals to promote improved rail service in Lambeth The Brixton Hub proposals Examining the feasibility of providing South London Line High Level platforms at Brixton Station Linking to this are proposals by the Mayor to develop the South London Line between Victoria and London Bridge to become part of a possible longer term "orbirail" providing orbital opportunities to bypass congested central London lines and stations (such as Victoria and Waterloo) In terms of frequency of service the Council, working with SELTRANS and the GLA is supporting the investigation of the development of a South London Metro. The aim is to create a high frequency, high capacity, "turn u and go" metro service	An Urban Design Framework for East Brixton was published in December 2001 providing a basis for all future development in the Hub area. Development is likely to take an incremental form due to the variety of transport proposals at this point. Funding is currently being sought from the Strategic Rail Authority for these improvements Response to future consultation Development is on going in conjunction with the South West trains. All stations are being brought to the minimum standards set by the SRA ad funding is being sought to extend platforms to cope with the increased frequency and capacity.	Transport and Planning Council Council / TfL Council / TfL / GLA	On going At discussion stage On going	On going On going On going
	18. Proposal : The Council supports river transport on the	The Council will investigate the options for improved interchange facilities that both encourage greater passenger use, and transfer of freight from road to river to relieve road congestion	The Council will through its UDP policies protect existing piers and where possible investigate interchange facilities to encourage greater passenger use	Regeneration and Planning	On going	2005 LIP confirms commitment in 2004 Replacement UDP.

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
	Thames as an alternative mode of transport for commuters and tourists					
C: Low ER: Low	19. Proposal: Lambeth will continue to develop its Walking Strategy in order to improve the walking environment	Lambeth has set up a transport taskforce (Feet First) to promote walking and re-balance the priorities for action away from the car and towards pedestrians The Taskforce will identify the fine detail of those factors presently discouraging walking, such as poor lighting levels, footway conditions, poor pedestrian safety and pedestrian signing, and propose ways in which these issues can be rectified	The Borough Spending Plan has provision for a significant five- year programme of footway maintenance, and a five-year programme of street clutter removal along key walking routes Audit and Improvements to walking routes between council offices	Feet First / Taskforce Street care/ Transport and Highways	On going date for completion 2007 On going due for completion March 2005	On going Work done to contribute to Mayor's 2004 Walking Strategy including implementation of TFL walking plan.
C: Medium (£20k) funding from TFL) ER: Low	20. Proposal: Lambeth will work with TFL to encourage walking as a viable alternative to other forms of transport	The Council is developing a walking map of Lambeth Lambeth is commissioning a study to develop a North South-South Walking route in Lambeth TfL are developing an internet based journey planner that will include waking routes in addition to public transport options	The map is being drawn with the help of the Walk First group in Lambeth - £20k funding from TfL to develop and implement the scheme Lambeth are working with TfL to make this internet service available to Lambeth staff and residents	Transport and Highways Transport and Highways TfL / Transport / Highways	On going On going	Work done to contribute TfL Walking Plan On going
	21. Proposal: The Council will continue to develop its Walking Strategy to encourage children to walk to school as an alternative mode	Identify safe routes to school Improvements to physical road safety Road Safety Education Promoting national schemes such as Walk to School Week	\School \travel Plans – promotion and awareness raising / survey/ questionnaire Surveyed by school/Highways- identified funding Kerb craft- a road safety initiative for schools	Transport and Highways Transport and Highways TfL/ Transport and Highways	On going due for completion 2007 On going due for completion March 2005	Lambeth has adopted its own School Travel Policies New initiatives identified in the 2005 LIP On going

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
	of transport					
C: high ER: Low	22. Proposal: The Council will continue to carry out and support measures to promote and make cycling safer and more convenient	<p>The Council supports the continued development of the London Cycle Network throughout the borough</p> <p>Provide continuous and safe cycle networks and other facilities such as cycle parking – the aim is to reduce road anger and improve driver attitude so that all roads can be used by cyclists, but also to provide separate cycle lanes where traffic speeds are high</p> <p>The provision of separate cycle paths will be done by taking road space from motor vehicles rather than pedestrians and shared use of footpaths will only be considered where pedestrian safety can be maintained</p> <p>Improving facilities at public transport interchanges to ensure secure cycle parking at transport hubs and the council will lobby for spaces for bikes to be provided on trains</p> <p>Major road-works and junction improvements will take into account the needs of the cyclist, adapting infrastructure for improved cycle provision</p> <p>The introduction of formal cycle audit and review procedures for all schemes as part of a Cycling Strategy to be incorporated within the Local Implementation Plan</p>	<p>Audit and Improvements to cycle routes</p> <p>Cycle audit and identification of “level of service” on the Transport of London road network in Lambeth to identify strategic proposals for improving the level and continuity of cycling provision along the major arteries in Lambeth with some schemes designed and ready for construction</p> <p>Lambeth’s commitment to promoting cycling is reflected in its UDP, its policy to “Think Bike” and the high priority given to cycling within the Lambeth Road Use Hierarchy. However, this will not be carried out to the detriment of other high volume public transport modes such as the bus.</p>	<p>Transport and Highways/ Cultural Change Board</p>	<p>On going</p> <p>Awaiting finance from TfL</p> <p>On going</p> <p>On going</p>	<p>On going – cycle map of the borough produced</p> <p>On going</p> <p>On going</p>
C: High ER: Low	23. Proposal: The Council will require developers to include cycle facilities within new developments and where appropriate encourage them to provide shower and changing	<p>Cycling will be considered in all aspects of transport planning in accordance with the council’s policy of developing a truly integrated transport system.</p> <p>Provision of secure and assessable cycle storage at new developments</p> <p>Provision of changing and shower facilities</p>	<p>The Council will use its planning process to require safe, secure and accessible cycle parking provision and facilities in all new public and commercial developments</p>	<p>Development Control</p>	<p>On going</p>	<p>On going</p>

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
	facilities					
	24. Proposal: Lambeth will support the work of the Mayor to investigate methods for reducing emissions from their diesel powered stock wherever possible	The council is supporting the programme of diesel replacement of rail freight stock through its liaison with SELTRANS	Future consultation	Council / GLA	On going	On going
C: High (cost of monitoring stations, monitoring programme and review & assessment	25. Proposal: Lambeth welcomes the commitment in the Mayor's Strategy to take action to reduce particulate emissions	The Council will continue to work in partnership with other central London Boroughs (Central London Cluster Group) to support the work of the GLA to reduce particulate emissions throughout London The Council will produce a 4 th Stage Review and Assessment of Air Quality in Lambeth which will specifically model existing and future levels of particulate pollution in the borough	Future consultation and feedback The Council will continue its programme of monitoring, reviewing and assessing the levels and future trends of ambient particulate pollution throughout the borough through a network of continuous air quality monitoring stations provided by central Government funding (SCA bids) and air pollution modelling using ADMS Urban modelling system	Regulatory Services/ Central London Air Quality Cluster Group Regulatory Services	March 2003 March 2003	Done Done
C: High R: Low NO2	26. Proposal: Lambeth welcomes and supports the environmental controls proposed for London wide airport development	Air Transport movement limit cap to Heathrow at 80 mmpa in line with BAA's development application Lambeth will give full consideration to the environmental, economic and transport implications of the development	Future consultation Representation through SERAS (South East Regional Airports Study) £5k funding to support legal challenge for expansion for night flights	Lambeth Regulatory Services// GLA	On going On going On going	High Court Challenge to Airport White Paper Decision given Jan 05 Successful outcome to Judicial Review of 2004. Response sent to Night Flight Consultation Stage 2
C: High (for enforcement / admin costs as well as remedial works by industry	27. Proposal: The Council will continue to regulate pollution from industrial processes	Part B authorisation / Statutory Nuisance Air Quality Review and Assessment	Regulate industrial processes in line with DEFRA guidance and to ensure Best Available Techniques are used to reduce emissions such that these emissions do not lead to exceedences of the NAQS objectives Investigate complaints about Nuisance	Lambeth Regulatory Services	On going On going	On going On going

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
ER: low/ med (locally)			Monitor air quality and undertake mandatory air quality strategy commitments		On going	On going
C: High/ Med ER: low/ Med(locally)	28. Proposal: Reduce emissions of Volatile Organic Compounds from industrial processes	Part B authorisation of Dry Cleaners, small scale vehicle resprayers , degreasing operations	The Council will fulfil its obligations under EU Directive on volatile organic compounds, which will bring new processes within the remit of Part 1 of the EPA 1990 as prescribed industrial processes requiring authorisation (including certain vehicle resprayers, degreasing operations and dry cleaners)	Regulatory Services	On going	On going. Proposal for implementation 2006.
C: Low /Med ER : Med/ High (locally)	29 Proposal: Promote the best practices and procedures to ensure pollution emissions and dust generation is kept to a minimum during construction activities	Council to promote the uptake of the BRE Code of Construction Best Practice when finalised Ensure Air Quality is taken into account along with other material considerations in making decisions on development proposals	Make it a standard recommendation on planning consents that developers adopt the BRE practices and procedures to ensure dust generation is kept to a minimum Housing to investigate feasibility of requiring compliance with BRE Code of Best Practice for Housing Contracts Produce supplementary planning guidance on air quality	Regeneration and Planning/ Regulatory Services Environmental Development (Housing) Regulatory Services	April 2003 April 2003 December 2004	On going On going No further action taken.
C: Medium (enforcement costs) ER: high individual / locally)	30. Proposal: The Council will use its statutory nuisance powers to control smoke nuisance from bonfires	Statutory nuisance action to be taken in cases where such action is considered necessary and appropriate Council to increase priority of bonfires complaints by improving response time. Target: same day response	Service of Statutory Notices under the Environmental Protection Act 1990 where Statutory nuisance has been substantiated Draft corporate enforcement policy directing new same day response time (within office hours)	Regulatory Services Regulatory Services	On going April 2003	On going Done
C: High E: Low	31. Proposal: The council will promote composting and recycling of waste to encourage greener methods of disposal other than bonfires	To recycle or compost 15% of household waste To ensure 100% of the population of Lambeth is either serviced by a kerbside collection of recyclables or lives within a kilometre of a recycling centre To have the green box service available to all street domestic properties To have 20% of households with gardens participate	The Council's Waste Recycling Plan – set out the Council's waste recycling objectives and how they will be achieved. The policy is one of reductions, Reuse , Recycling and composting The aim is to increase the number of residents in the borough who participate in recycling services by increasing their level of involvement and understanding	Team Lambeth Team Lambeth Team Lambeth Regeneration and	On going April 2004	On going with new contractor On going

Cost Effectiveness Rating C=cost ER=emissions reduction	PROPOSAL	Key Actions	Implementation	Responsibility	Target Date	Progress as at April 2005
		in home composting To Achieve 100% composting of all horticultural arisings in Lambeth's Parks and Estates		Planning Environment(Parks) / Housing (Ground Maintenance)		
C: High ER: High on an area wide basis over a 5-10 yr period	32. Proposal: The Council will seek to use the cleanest conventional energy sources in its own buildings	The Council continue an ongoing programme of oil to gas conversion	In order to reduce the amount of fuel burned and therefore emissions created by domestic and commercial heating systems throughout Lambeth, the UDP will incorporate the principles of sustainable design and construction having regard to the Mayor's Energy Strategy for London		On going – completion 2005	On going
C: High ER: Medium	33. Proposal: The Council will introduce policies in its revised UDP to encourage high standards of energy efficiency and the use of renewable energy in developments through sustainable design principles	The Council will: Require developers to consider sustainable design and resource efficient principles in new buildings in line with its Sustainable Construction Policy (2001) Encourage the use of natural ventilation and lighting and effective energy conservation and thermal insulation to conserve energy and reduce heat loss and air pollution Encourage new developments to meet the highest standards of sustainable design and construction, including the re-use of existing building stock where practicable Consider and require efficient local energy generating schemes where practicable Consider and require efficient local energy generating schemes where practicable Assess combined heat and power schemes (CHP) proposals using Customs and Excise "Good quality CHP" index and ensuring developers demonstrate that opportunities for utilising heat have been fully assessed	Planning policies will require the layout of new developments to promote energy conservation and hence reduce the emissions of greenhouse gasses. They will also encourage building designs and materials that have the least environmental impact as well as regulating and encouraging renewable energy. Review opportunities to integrate renewable energy sources in all office/school refurbishments	Regeneration and Planning Design and Technology Services / Education	On going April 2004 On going On going On going	In 2004 Replacement UDP