

**Review And Assessment of Air Quality In The London  
Borough of Lewisham**

**Lewisham Air Quality Action Plan**

**January 2008**

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## EXECUTIVE SUMMARY

This Air Quality Action Plan (AQAP) has been prepared in order to fulfil the London Borough of Lewisham's (LBL) statutory obligations under section 84(2) of the Environment Act 1995 and the subsequent Local Air Quality Management (LAQM) regime.

LAQM is an effects-based process by which local authorities are required to review and assess their local air quality in relation to health-based air quality objectives. Where it is predicted that objectives will not be met, and members of the public are exposed to elevated levels of pollutants, local authorities are required to declare Air Quality Management Areas (AQMAs) and subsequently develop and implement AQAP setting out measures that they intend to take, in order to improve local air quality, in pursuit of the air quality objectives.

Air quality monitoring and modelling carried out by the Council indicated that, LBL fails to meet government air quality targets for nitrogen dioxide (NO<sub>2</sub>) and particulates (PM<sub>10</sub>) within the northern part of the borough and along the most congested roads. Subsequently 5 AQMAs were declared in June 2001.

In 2004 a first draft action plan was produced, containing measures to improve air quality by the end of 2010. A revised draft was published in May 2007 together with a Progress Report on the previous Draft Action Plan. The feedback received during the consultation period following the publication of the above documents has been incorporated in this final version. For consistency the same structure and number of actions included in the original Action Plan have been kept in this final version. A few measures are likely to be amended, replaced, dropped or incorporated into others through future progress reports. Some of the proposed measures are dependent on funding and may have to be reviewed in further progress reports if adequate resources are not available.

This AQAP sets out existing and future measures, which will deliver improvements to air quality primarily within the AQMAs. Traffic is the major source of pollution in our AQMAs, as such the majority of the measures will be implemented through the Local Implementation Plan. Air pollution from domestic, commercial and industrial sources are also addressed. Some measures are also aimed to inform, involve and educate the local community.

The implementation of the London Low Emission Zone (Action 1) is expected to have the highest benefit in improving air quality within Lewisham AQMAs and the all Borough. Freight quality partnerships (Action 7), fleet management (Action 4), travel planning (Action 9), road planning (Action 15) are also expected to have significant air quality benefits locally in the short-term. However the most significant improvements are expected through the effective implementation of the all package of measures included in the Action

Plan and their cumulative impacts. Significant reduction in CO<sub>2</sub> emissions are also expected.

This AQAP is a live working document and should stimulate new ideas and transform existing policies to improve air quality, not only across the AQMAs, but the whole Borough and beyond.

Costs and benefits of each action, timescales for implementation, funding available, key responsibilities, air quality and wider impacts have been provided where possible in the summary table at the end of this report. Performance indicators and targets have also been included so that progression can be assessed through annual Progress Reports. Progress Reports will also include a more detailed quantification in terms of air quality benefits, a further a cost-benefit analysis and a revised prioritisation of actions to be implemented.

Maintaining consistent, constructive and widespread consultation, and engagement with statutory and non-statutory stakeholders, will be crucial to the effectiveness of this AQAP.

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# **1. The Action Plan Process**

## **1.1 Introduction**

Air quality in the UK has significantly improved since the introduction of air pollution control following the smog episodes in 1950's. From 1990 to 2001 the improvements have helped to avoid an estimated 4,200 premature deaths per annum and 3,500 hospital admissions per annum. However pollution is currently estimated to reduce the life expectancy of every person in the UK by an average of 7-8 months.

Road traffic has recently replaced industry as the main source of air pollution. In the longer term, emissions from vehicles make a significant contribution to climate change, which has the potential to affect everyone. Excessive road traffic – which affects areas of poor air quality - is considered to be one of the modern, main “environmental stress” factors.

As well as affecting health, air pollution can be damaging to the local economy, resulting in lost working days through illness and reduced productivity. It makes the environment less attractive to visitors and can damage buildings and structures. This often has particular impact on our most disadvantaged communities. Usually it is the most vulnerable members of society who are affected: the young, the elderly and those with existing medical conditions. A balance must therefore be struck between addressing air quality and increased traffic growth with the need to support Lewisham Borough's continuing economic growth.

Part IV of the Environment Act 1995 places a statutory duty on local authorities to periodically review and assess the air quality within their area. This involves consideration of present and likely future air quality against relevant air quality objectives. Areas where it is measured or predicted that the targets will not be met must be declared as Air Quality Management Areas (AQMAs) and an Air Quality Action Plan (AQAP) must then be produced which sets out measures to improve air quality.

The air quality review and assessment in Lewisham found that targets for nitrogen dioxide (NO<sub>2</sub>) and particles (PM<sub>10</sub>) would be exceeded in the Northern part of the Borough and at locations close to the most congested roads. Five AQMAs were consequently declared in Jun 2001.

In 2004 a first draft action plan was produced, containing measures to improve air quality by the end of 2010. A revised draft was published in May 2007 together with a Progress Report on the previous Draft Action Plan. The feedback received during the consultation period following the publication of

the above documents has been incorporated in this final version. For consistency the same structure and number of actions included in the original Action Plan have been kept in this final version. A few measures are likely to be amended, replaced, dropped or incorporated into others through future progress reports. Some of the proposed measures are dependent on funding and may have to be reviewed in further progress reports if adequate resources are not available.

## Objectives

This Action Plan sets out a comprehensive package of measures that aims to improve air quality in Lewisham. The key aims of the Action Plan are:

- Bring about changes across a number of areas to ensure emissions are reduced from the main sources of pollution in a cost-effective and proportionate way
- Improve local air quality, in pursuit of the air quality objectives for nitrogen dioxide and particulates
- Contribute to improving the health and wellbeing of the local community by reducing air pollution

The review and assessment process highlighted that the main source of these pollutants in the Borough is road transport.

Where this is the case, the focus of the Action Plan is mainly concerned with reducing emissions from road transport, with an emphasis on balancing supply side measures, such as improved walking, cycling and public transport, and demand side management, such as traffic restraint and regulation.

Using available guidance produced by the Government, officers across the Council have looked at several options to improve air quality. Of the options considered, practically all have been adopted or implemented within the Council's policies.

It is important to state that although air quality is a priority for the Council, it is not the only concern and efforts have been made to ensure that the proposed actions are complementary to other aims and objectives, on both a local and regional level.

Lewisham's draft Air Quality Action Plan integrates with other key Council policies and documents including:

- Unitary Development Plan and Local Development Framework
- Travel Plan Strategy

- Local Implementation Plan
- Parking Strategy
- Energy Strategy
- Corporate Procurement Strategy
- Fleet Management Strategy

This document has been prepared following the requirements of the Policy Guidance issued by DEFRA (LAQM.PG(05)) and the approaches set through the Technical Guidance issued by National Society for Clean Air (NSCA).

## **The Air Quality Strategy (AQS)**

The UK Government has a legal responsibility to meet EU air quality objectives. The Government 's Air Quality Strategy contains a number of objectives, some of which are set in the regulation for Local Air Quality Management.

The AQS outlines the future of ambient air quality, as far as it is possible, in the United Kingdom. The UK Government and the devolved administrations published the first strategy in 1997; this was superseded by later revised strategies. The current Air Quality Strategy for England, Scotland, Wales and Northern Ireland was published on 17 July 2007<sup>1</sup>.

The new Strategy:

- sets out a way forward for work and planning on air quality issues
- sets out the air quality standards and objectives to be achieved
- introduces a new policy framework for tackling fine particles
- identifies potential new national policy measures which could give further health benefits and move closer towards meeting the Strategy's objectives.

The AQS sets out Air Quality Objectives (AQOs) for the following pollutants: particulate material (PM<sub>2.5</sub> & PM<sub>10</sub>), nitrogen dioxide, nitrogen oxides, ozone, sulphur dioxide, polycyclic aromatic hydrocarbons, benzene, 1,3-butadiene, carbon monoxide and lead.

The AQS annual mean nitrogen dioxide objective and the PM<sub>10</sub> 24-hour objective reported in Table 1.1 are currently exceeded or approached in Lewisham.

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<sup>1</sup> <http://www.defra.gov.uk/Environment/airquality/index.htm>

**Table 1.1** NO<sub>2</sub> and PM<sub>10</sub> air quality objectives.

<i>Pollutant</i>	<i>Objective</i>	<i>Concentration measured as</i>	<i>Date to be achieved by and maintained thereafter</i>	<i>European Obligation: date to be achieved by and maintained thereafter</i>
<b>Nitrogen dioxide (NO<sub>2</sub>)</b>	40µg/m <sup>3</sup>	Annual mean	31-Dec-05	31-Dec-10
	200µg/m <sup>3</sup> (105ppb) not be exceeded more than 18 times a year	1 hour mean	31-Dec-05	31-Dec-10
<b>Particles (PM<sub>10</sub>)<sup>2</sup></b>	40 µg/m <sup>3</sup>	Annual mean	31-Dec-04	1 January 2005
	50 µg/m <sup>3</sup> not to be exceeded more than 35 times a year	24 hour mean	31-Dec-04	1 January 2005

The objectives set out in previous strategies were not removed with the exception of a provisional PM<sub>10</sub> target for 2010.<sup>3</sup>

An exposure reduction framework for minimising the health impact of particles has been adopted with the new strategy. This approach is based on the lack of an accepted safe level of exposure to fine particulate material (PM<sub>2.5</sub>). The exposure reduction approach requires that the average exposure of the population to fine particles be reduced and differs from the former approach based on an air quality limit value which only requires measures in the most polluted locations that exceed the limit value. The strategy adopts a limit value of 25 µg/m<sup>3</sup> for PM<sub>2.5</sub> and a target of reducing the urban background concentration by 15% between 2010 and 2020. This changes the policy focus from addressing specific areas that approach or breach the air quality limit to an approach that considers all areas.

## Health Effects of Nitrogen Dioxide and Particulates

A research from the Department of Health's Committee on the Medical Effects of Air Pollutants (COMEAP) suggests that people exposed to particles over the long term are at greater risk of premature death, particularly from heart disease. As stated in Chapter 2, men in Lewisham die more frequently from lung cancer and respiratory diseases compared with England and Wales, and women in Lewisham are 50% more likely to die from respiratory diseases (Lewisham's Health Improvement and Modernization Plan 2002 – 2005). Therefore, it is imperative to try and work towards improving local air quality.

<sup>2</sup> PM<sub>10</sub> to be measured using the European gravimetric system or equivalent

<sup>3</sup> <http://www.defra.gov.uk/environment/airquality/strategy/pdf/air-qualitystrategy-vol1.pdf>



***Nitrogen Dioxide (NO<sub>2</sub>)***

At relatively high concentrations, nitrogen dioxide causes inflammation of the airways. There is evidence to show that long-term exposure to nitrogen dioxide may affect lung function and that exposure to nitrogen dioxide can/may enhance the response to allergens in sensitised individuals.

All combustion processes in air produce oxides of nitrogen. Nitrogen dioxide (NO<sub>2</sub>) and nitric oxide (NO) are both oxides of nitrogen and together are referred to as NO<sub>x</sub>. It is nitrogen dioxide, which is associated with adverse effects upon human health.

***Particulates (PM<sub>10</sub>)***

Particulate air pollution can be associated with a range of effects on health including effects on the respiratory and cardiovascular systems, asthma and mortality. Although the precise mechanism by which particles damage health remains unclear, a large number of epidemiological studies have shown relationships between various indices of ill health and measurements of particle concentrations. At the moment there remains considerable uncertainty about the precise nature of these effects. Further work is underway to reduce this uncertainty and to improve our knowledge of the ways in which particles affect human health. As discussed in the previous section, the latest AQS has introduced new targets for PM<sub>2.5</sub> (fine particles).

## **1.2 Local Air Quality Management in Lewisham**

***First Round of Review And Assessment***

Lewisham carried out its first round of “Review and Assessment” (R&A) between 1999 and 2003. The Council followed the phased approach required by the Government and described in detail in Annex.

In the third stage of the review and assessment the Council was required to undertake sophisticated modelling to ensure that an accurate and detailed review and assessment of current and future air quality was carried out. The Stage Three report assessed air quality across the whole of the Borough in accordance with DEFRA guidance. The detailed assessment predicted that there would be areas in the Borough that would exceed the NO<sub>2</sub> annual mean and 24-hour mean PM<sub>10</sub> objectives.

As a consequence five Air Quality Management Areas (AQMAs) were designated across the Borough in June 2001. The declaration of the AQMAs showed in Figure 1.1 was the outcome of a public consultation exercise carried out in 2000.

The Stage Four report subsequently remodelled the whole Borough using revised vehicle emission factors. The Stage Four modelling predictions confirmed the Stage Three findings that the annual mean NO<sub>2</sub> and 24-hour mean PM<sub>10</sub> AQS objectives would be exceeded. The area where the annual mean NO<sub>2</sub> objective was predicted to exceed was much larger than that for PM<sub>10</sub>.

A Draft Action Plan was produced in December 2003 and published in July 2004. A summary document was also produced and made available for public consultation during the summer at libraries and during the 'People's Day' held in July to promote services across the Council. No comments were made in respect to specific actions.

### ***Second Round of Review And Assessment***

The second round of review and assessment was undertaken between 2004 and 2006. The main conclusion was that the AQMAs should be maintained. Air Quality reports for this and other rounds of the R&A process in Lewisham can be downloaded from [www.lewisham.gov.uk](http://www.lewisham.gov.uk).

### ***Third Round of Review And Assessment***

The third round of review and assessment commenced in 2006. The Updating and Screening Assessment (USA) report in July 2006 concluded that a Detailed Assessment was not required to amend or revoke AQMAs since there were no changes to the current exceedances across the Borough.

A progress report was completed in April 2007. The monitoring data for nitrogen dioxide and PM<sub>10</sub> in this report confirmed that the Government's air quality objectives were being exceeded widely at locations with relevant public exposure and therefore the Council should maintain its Air Quality Management Areas (AQMAs). The monitoring for sulphur dioxide confirmed that the air quality objectives were not being exceeded.

An update on the progress made by the Council regarding its twenty-one actions originally contained in the Council's Draft Action Plan was also presented. Additionally suggestions were made to investigate the introduction of NO<sub>2</sub> diffusion tube monitoring at key locations around the borough and the installation of a new continuous monitoring station in the north area of the Borough.

## 1.3 Lewisham Air Quality Management Areas

Section 83(1) of the Environment Act 1995 states that a local authority must designate Air Quality Management Areas (AQMA(s)) for those parts of the local authority area where air quality objectives are unlikely to be met.

The Stage 3 report (the findings are discussed in Section 3.2) during the first round of R&A concluded that AQMA(s) were required in the Borough of Lewisham due to the likelihood of the air quality objectives being exceeded for the following pollutants:

- Nitrogen dioxide (NO<sub>2</sub>)
- Particulates (PM<sub>10</sub>)

Where this was the case it was necessary to identify the geographical boundaries of the exceedances and provide a description of the area (s) which the authority proposed to designate as AQMA(s).

There were no hard and fast rules in deciding on where the boundary line for each AQMA should be placed so each authority approached this task in a different way. As there were several options available, the Council opted to show two options indicating where the proposed Air Quality Management Areas could be located.

In showing these maps to the public it was hoped to open a forum for discussion and comments as to the most practical solutions to the problem.

The options were:

### ***Option One***

- One large AQMA in the north of the Borough from New Cross Road up to the River Thames and
- A series of AQMA(s), which run along the road network.

### ***Option Two***

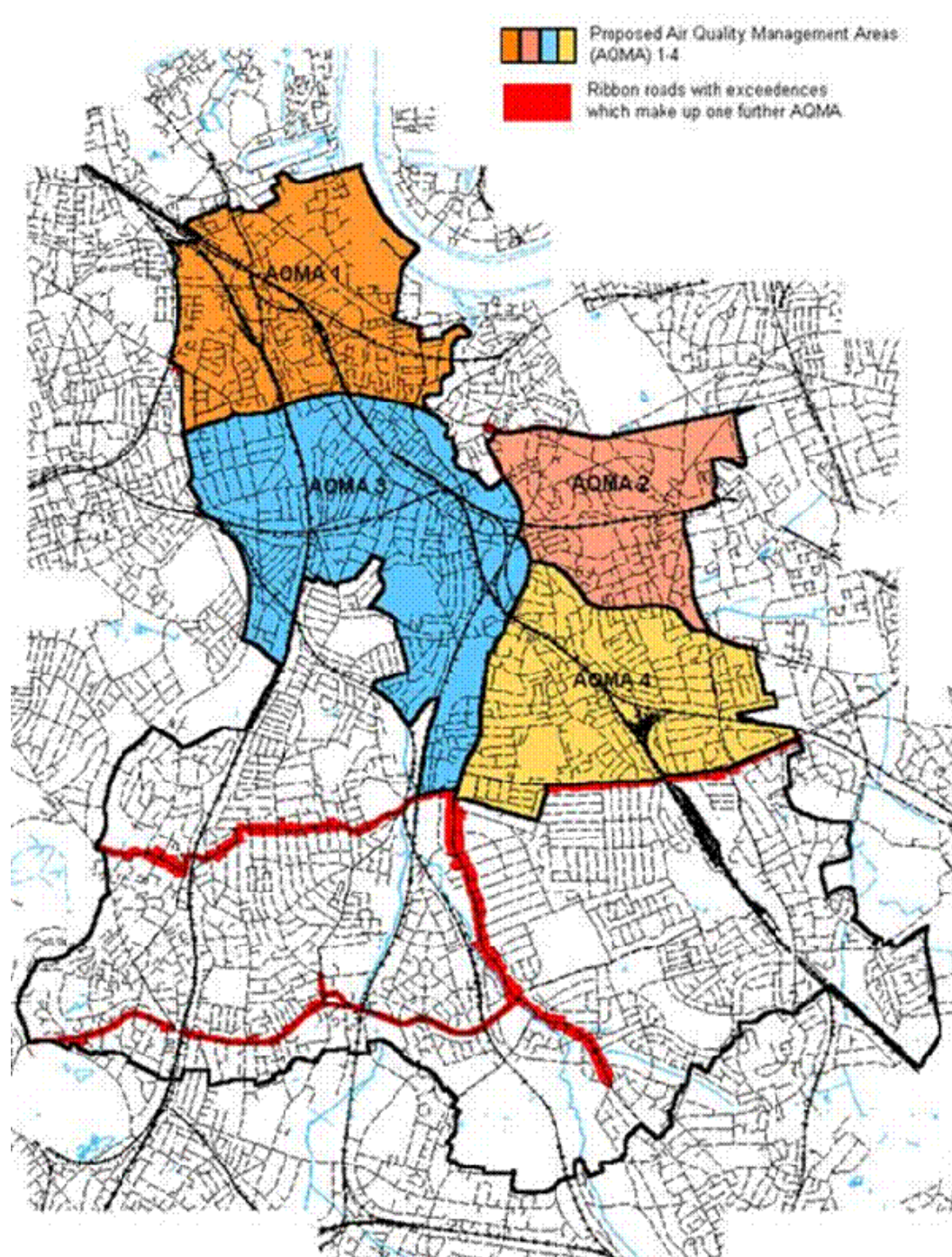
- One large AQMA in the north of the Borough from New Cross Road up to the River Thames and
- Declaration of a further three AQMA(s) as indicated in the map below.
- A fifth AQMA containing the remaining roads where exceedances had been found but did not fit into one of the above AQMA(s). These are known as 'ribbon roads'

Lewisham Council consulted both the community and other statutory consultees on proposals to designate an Air Quality Management Area or Areas during October and November 2000.

Replies to the consultation document were received from most of the statutory consultees and some residents and they were complimentary in the approach taken by the department in terms of the both the methodology used and the demarcation of the Air Quality Management Areas.

The consultation process was concluded on the 30<sup>th</sup> November 2000 and the formal order was drawn up in conjunction with the Council's legal department in June 2001, with the implementation of *Option 2*, as shown in Figure 1.1.

**Figure 1.1 Lewisham Air Quality Management Areas**



## **1.4 Lewisham's Action Plan**

The Environment Act 1995 (Section 84) states that where an AQMA is designated, a local authority shall prepare an Action Plan to demonstrate how the authority intends to pursue the achievement of air quality standards and objectives in the AQMA, using any powers exercisable by the authority

In developing an Action Plan, a local authority should: -

- Assess the options available to improve air quality, such as Low Emission Zones.
- Involve all relevant internal and external professionals and departments to ensure that the Action Plan is balanced and workable.
- Ensure that there is an appropriate balance between regulatory and non-regulatory approaches
- Consider that the current sources of pollution may be somewhat different in future years and ensure that there is a cost-effective and proportionate approach to the contributions from industry, transport and individuals.
- Carry out research where possible on the environmental, economic and social consequences for each option put forward.

In order for an action plan to work effectively and be practical it is essential that local Environmental Health departments work closely with the following groups and agencies:

- The local authority - Internal departments
- Neighbouring local authorities
- The Greater London Authority (GLA)

### **The Local Authority**

Air Quality should be approached internally in a corporate and multi-discipline way. At Lewisham, the Environmental Health Group officers have held meetings with the following departments with a view to incorporating air quality consideration into key Council policy areas such as:

- Transport Planning
- Land use Planning
- Sustainability

These meetings have ensured that the air quality has been taken into consideration in other areas such as the construction works for the East

London Line extension, and in the development of documents such as the Local Implementation Plan and the Local Development Framework.

## **Neighbouring Local Authorities**

As air pollution does not consider borough boundaries it is essential that neighbouring authorities work together to achieve the same goal. London local authorities set up cluster groups in 1998 so that neighbouring authorities could meet on a regular basis to discuss air quality, although these groups did not include all adjoining boroughs. Since then officers from the Council have discussed air quality, AQMA's and action plans within their cluster groups. Lewisham is part of the South London Cluster Group.

In addition, detailed discussion has also taken place within the adjoining Boroughs of Southwark and Greenwich as it is recognised that any action plan will need to be co-ordinated with these Boroughs for it to be workable. In theory, any changes implemented in Greenwich are likely to have knock on effects in Lewisham and in turn Southwark or visa versa.

This has meant co-ordinating the approach to be taken with regard to AQMA boundaries to ensure that they are consistent and logical. This work has continued with the reassessment and action plan phases.

## **The Greater London Authority**

London Boroughs and the Mayor of London have a statutory duty to work towards meeting the AQS objectives. The Mayor also has a statutory duty to produce an Air Quality Strategy for London. All 33 London Councils have recognized the government's objectives will not be met throughout their boroughs and have declared Air Quality Management Areas. Most have published Action Plans for improving air quality.

The London Air Quality Strategy (LAQS) sets out how the Mayor intends to implement in Greater London the policies contained in the Air Quality Strategy and how to achieve the air quality objective. London local authorities are required to have regard to the LAQS when exercising their functions under Part IV of the Environment Act 1995.

The Strategy includes measures to be taken by the Greater London Authority, Transport for London (TfL) and the London Development Agency (LDA), as well as measures, which others are to be encouraged to take.

Given London's existing high levels of pollution, and predicted growth in population and economic activity, achieving these air quality objectives will be more difficult in London than in the majority of the UK.

Since road traffic is the main source of emissions of the main pollutants of concern in London, the primary focus of the Strategy is to reduce pollution from this source. This will be achieved in two ways.

- Reduce the amount of traffic: the Mayor's Transport Strategy (MTS) and London Plan set out measures that aim to reduce traffic in central London through congestion charging, and to achieve zero growth in inner London and reduce anticipated growth in outer London, by accommodating the bulk of increased demand for travel on greatly expanded and improved public transport services.
- Reduce emissions from individual vehicles: newly manufactured road vehicles are becoming progressively cleaner, led in part by EU legislation. However, cleaner road vehicles are not penetrating the London vehicle fleet fast enough for sufficient overall emissions reductions to achieve national and European air quality targets. This is where the greatest opportunity for reducing emissions lies and is therefore the focus of the Mayor's Air Quality Strategy.

The challenge of improving London's air quality is complicated by:

- An increasing population, predicted to reach 8.1 million by 2016
- Pressure to maintain economic growth
- Increasing road vehicle traffic in inner and outer London (Central London is predicted to remain constant)
- London's topography
- Positioning of large generation, waste disposal and industrial activities in the surrounding areas.

The London Borough of Lewisham is committed to work in partnership with the Mayor of London and the GLA towards an air quality strategy. Detailed within this report are measures and approaches that have been implemented in support of the air quality objectives. Future initiatives are also contained within this report and together they set out the Councils strategy for air quality within the Borough.



## **2. Action Planning – Background**

As stated in Chapter One, the key aims of the Action Plan is to bring about changes across the whole of Council to ensure that the current levels of pollutants are reduced in a cost-effective and proportionate way.

Therefore, it was important to look at the profile of the Borough, as some of the proposed actions may affect residents, businesses and commercial ventures, not just the Council itself. When deciding on the Actions it was central to examine the fields of health, transport and employment as this clarified how disadvantaged some groups within the Borough are. The Council should be mindful that some proposals may affect these groups more than others.

### **2.1 Population**

Lewisham is an inner London Borough covering an area of 14 square miles and is the third largest inner London Borough in terms of both its population and its area. It has a highly diverse and vibrant community with around 250,000 residents. The GLA predicts that by 2016 the overall population of Lewisham will have risen by 10% to just over 273,000 and the growth will be particularly concentrated in the 15-24 aged group which is expected to grow by about 21%. Overall the Borough has a relatively young population with a higher proportion of residents in the 0-4 and 15-44 age groups

Lewisham also has a diverse population both ethnically and culturally, with approximately one third of the population and 50 percent of pupils in Lewisham schools from black and minority ethnic communities. The largest of these are from Caribbean and African origin (21%), and the Borough is also home to a sizeable Asian and Turkish/Turkish Cypriot community.

### **2.2 Social and Economic Factors**

Lewisham is, in terms of deprivation, a Borough with distinct areas of acute need, as evidenced by the Indices of Multiple Deprivation 2000. Lewisham was ranked as the 30<sup>th</sup> most deprived local authority district with four of Lewisham's wards in the worst 10% in the country for employment, 21 wards in the same category for housing, five for education and four for child poverty (Lewisham Community Strategy). A further 12 were in the worst 20%.



The following facts make stark reading: -

- \* The average annual income for council tenants in the borough was £8,671 compared to the borough average of £25,004 (HNS 2002)
- \* The unemployment rate in April 02 was 7%, twice the national average in some wards this increased to three times the national average. (LRC ONSN/REN)
- \* Lone parent's households comprised 15% of the total, almost twice the national average. (Community strategy 2003)
- \* Lewisham had the eighth highest rate of teenage pregnancy in England, and one of the highest in Europe. (Community strategy 2003)
- \* Infant mortality rates were the 2<sup>nd</sup> highest in London (London Health Observatory 2001 N/REN)
- \* 7% of all adults aged 18-64 lived with physical disabilities or sensory loss (Lewisham community plan 2003)
- \* 19.6% of all households in the Borough were estimated to be living in unsuitable housing. (HNS 2002)
- \* In 2002/3 2,590 applications were made to the Homeless section or Housing Department compared to 2,204 in 2001/2 (Homelessness review & strategy 03)

Unemployment in Lewisham has declined from its highest level ever at around 22,000 or 19% at the end of 1993 to 7,900 (6.8%) in April 2001. There is, however, wide variation between males and females and different areas in the Borough. In Grinling Gibbons ward male unemployment was 15.4% while in St Mildred ward female unemployment was 2.1%.

Despite these issues, local communities are vibrant and creative. For example, a recent assessment of the creative sector in Lewisham found that the Borough has over 550 small and medium-sized creative businesses alone. Above all, local people and communities are actively involved in the life of the Borough.

Access to employment is a central issue determining both income levels and social mobility. Lewisham has an economy that has undergone substantial change. Over the last 20 years the Borough has lost the majority of large private sector firms, with small retail and business service companies becoming dominant.

With an employment base of 60,000 jobs and a workforce of around 115,000, Lewisham is a net exporter of labour and a major contributor of skills to the London economy.

## **2.3 Health**

For the first time the 2000 Census included information about people with limiting long-term illness. 13% of Lewisham's population (24% of households) are affected; this is higher than the Inner London average of 12.7% (22.9% of households) and the Greater London average of 11.8% (22.7% of households), means that just over 30,000 people are affected. More than half of residents aged 75 and over suffer from some kind of limiting long-term illness.

Compared with England and Wales, Lewisham men die more frequently from lung cancer, respiratory diseases, and suicide or as a result of a homicide or an injury of undetermined source. Lewisham women die more frequently from cervical cancer (almost twice the national rate), breast cancer and lung cancer. They are also 50% more likely to die from respiratory diseases. In Lewisham 15 to 44 year old males have a greater chance of dying from any cause, compared with people of a similar age across England and Wales.

Although people in Lewisham are living longer than they used to, across a range of measures inequalities in health have either remained the same or even widened. In many respects sexual health in Lambeth, Southwark and Lewisham is the worst in the UK with HIV and AIDS, chlamydia, gonorrhoea and teenage pregnancies posing a particular challenge.

Each year approximately 270 Lewisham women below the age of 18 become pregnant and the infant mortality rate in Lewisham is higher than the national average.

## **2.4 Transport**

Lewisham has excellent transport links to central London and is just 12 miles from the M25 motorway. The southern extension of the Docklands Light Railway (DLR) has further enhanced the attractiveness and accessibility of Lewisham to other parts of London, in particular to Canary Wharf where employment is set to rise by 60,000 over the next five years in London and the southeast.

Lewisham relies heavily on the south and south-east London train services as there is a limited tube service and the frequencies compare very unfavourably with London Underground services in other equivalent parts of outer London.

The Borough is crossed by several heavy rail lines, which generally provide a good service to and from Central London in the peak hours. However there is concern about the frequency of services from Lewisham (reverse commuting) to other localities in the south-east. The Council is also concerned that these

lines are not used to their full potential for short-distance travellers who are penalised by the fare structure and for local journeys at off-peak times.

Within Lewisham there are:

- 20 main line stations - Two have interchanges with the underground system (New Cross and New Cross Gate) and one has an existing interchange with the Docklands Light Railway (DLR) (Lewisham). A further four will have an interchange to West Croydon with the implementation of the East London Line Extension (ELLX) by 2010.
- 3 DLR stations - Lewisham has an existing interchange with the Main-Line services
- 2 underground stations - One proposed new underground station at Surrey Canal Road on the ELLX towards Croydon.

In addition to the above there are several rail projects being developed or coming to fruition. The DLR extension to Lewisham opened in November 1999. The increase from two to three-carriage DLR trains has been approved and will be completed by 2010. The new three-carriage trains will help accommodate increasing DLR passenger numbers by providing extra capacity and enhanced comfort for passengers.

### **Car Ownership and Travel in Lewisham**

The census provides important contextual information on transport in Lewisham and the needs of local residents. It shows that the average proportion of households with access to a car has steadily risen from 42% in 1971, 50% in 1981, 53% in 1991 to just under 57% in 2001. The total number of cars owned by households in Lewisham has increased by 12,432 (19%) to 79,270 since the 1991 census. There are however, significant variations between different parts of the Borough with ward data ranging from over 50% households without a car [Brockley, Evelyn and New Cross] to under 33% [Catford South and Grove Park.].

A map showing the various transport links across the Borough is attached in Annex A.

## **2.5 Environment**

Open Space in Lewisham is one of the Borough's greatest assets and makes up 21.8% of the Borough's land area. These include the large expanses of Blackheath in the north and Beckenham Place Park in the south, to the many medium sized and smaller spaces between; including over 40 public parks which are widely used and greatly appreciated by Lewisham's residents.

There are nearly 300 hectares of Metropolitan Open Land and just over 474 hectares (13% of the Borough) are defined as "Sites of Nature Conservation

Importance". (SNCI). Lewisham has three sites of major ecological importance in London – Beckenham Place Park, Blackheath and the Thames/Deptford Creek. In addition to these open spaces, trees contribute to making Lewisham a more pleasant and attractive place in which to live and work and are a familiar and cherished feature of many areas. They also provide a valuable habitat for wildlife and act as a barrier to noise and most importantly produce oxygen, trap dust and absorb carbon dioxide and other pollutants.

Lewisham also has several rivers, a short section of the Thames, and longer stretches of the Ravensbourne and its tributaries the Pool, Quaggy and Spring Brook. Many of the locations form the basis for wildlife corridors, as well as the Waterlink Way and the Thames Path, and are important to sustain biodiversity. The Waterlink Way is a local Green Chain, within Lewisham, comprising a linked network of open spaces, waterways and pedestrian routes from Beckenham Place Park to Deptford Creek, following the line of the rivers Ravensbourne, Quaggy and Pool. Although not a main source of transportation, the Thames may in the future become a more utilised form of public transportation.

### 3. Air Pollution Monitoring and Modelling

Lewisham carries out air quality monitoring to provide the scientific background necessary to validate any modelling studies. This ensures that any conclusions reached as a result of modelling are accurate and reliable indications of the pollutant concentrations found in an area.

#### 3.1 Lewisham Air Quality Network

The existing sites in the London Borough of Lewisham have continuous monitoring analysers. The sites allow high-resolution measurements (typically hourly or shorter period averages) to be taken for oxides of nitrogen, sulphur dioxide, ozone and particulates. The air sample taken is analysed on-line and in real-time.

The Council currently operates two automatic high quality continuous monitoring stations:

**Catford Town Hall (Lewisham 1)** – an urban background site in Catford, in the middle of the Borough (this site has been operating since 1996). Urban locations are away from major sources and broadly representative of town/city-wide background concentrations, e.g. urban residential areas. The species monitored are Nitrogen Dioxide, Ozone and Sulphur Dioxide.

**New Cross Road (Lewisham 2)** - a roadside site in New Cross that started operating in April 2002. A roadside site is defined as a site with sample inlets between 1m and 5m from the kerbside. Sampling heights are within 2-3m of the ground. At this site the distance is just over 5 metres from the kerbside, with a sampling height of 3 metres. The species monitored are Nitrogen Dioxide, PM<sub>10</sub> Particulate (by TEOM) and Sulphur Dioxide.

Further information on the air quality network is given in Section 4.2.9 and Annex.

#### 3.2 Dispersion Modelling

Lewisham is criss-crossed by the Transport for London Road Network (TLRN) (A2, A20, A21, A202, A205), which carries, as a whole, a third of London's traffic daily. During the week, approximately 250,000 vehicles travel through the Borough to and from Central London.

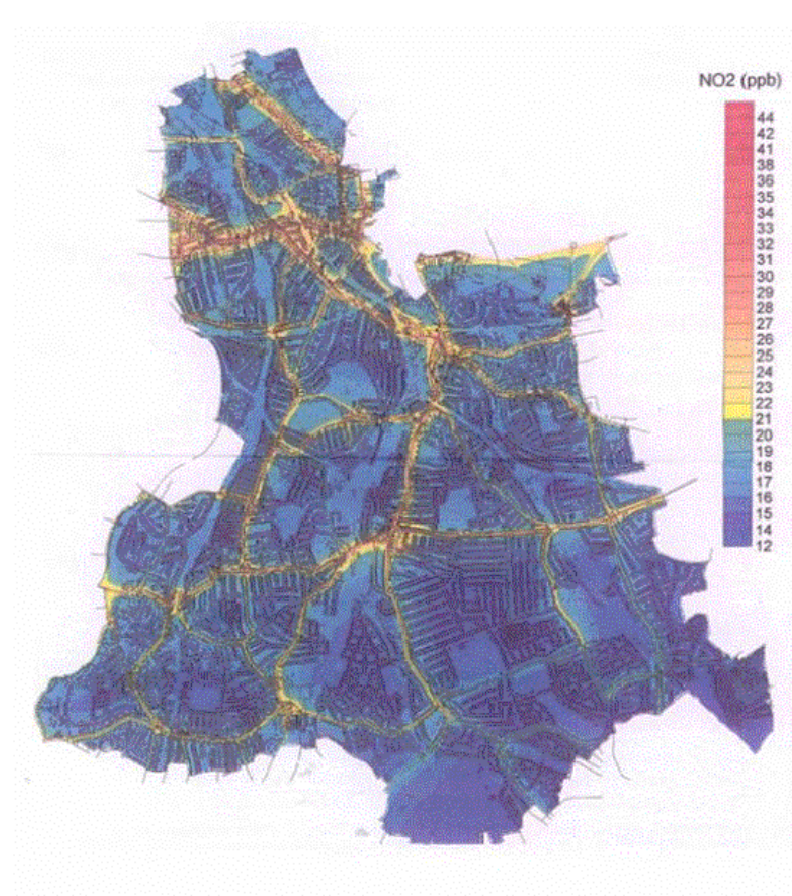
As stated in Chapter 1 the Council undertook a detailed assessment of the sources of air pollution within the AQMAs during the first round of review and assessment. Data from Lewisham continuous monitoring stations, the London Air Quality Network and the London Atmospheric Emission Inventory were used.

The outcome of the reports is summarised in this section; further information including the methodology used for the modelling is reported in Annex

### Annual mean NO<sub>2</sub> in 2005

The concentrations of annual average NO<sub>2</sub> for the 2005 base case (1999 met data) are shown below. The areas coloured yellow to red are those that exceed the AQS objectives. The exceedances were predicted adjacent to major roads across the Borough.

**Figure 3.1 Modelled NO<sub>2</sub> annual mean concentration for 2005.**



It was clear that the major roads provide the most important contribution to concentrations of NO<sub>2</sub>. It is also important to note that the locations of the major roads were modelled to a high degree of accuracy and in this case it is within 1m. This enabled the concentration contours to be plotted with OS Landline data, which gives details of individual houses and allows easy estimation of the exposure of the local population to concentrations above the AQS objective. The pollution contours also show the rapid fall off in concentration from the road and the effect of increased concentrations close to road junctions, where the emissions of two or more roads combine and where slow moving, congested traffic is more likely to occur.

***Specific areas, which were found to exceed the AQS objective are associated with major roads and include:***

- Most of the A2 (New Cross Road, Deptford Broadway, Blackheath Hill/ Shooters Hill),
- A20 (Lewisham Way, Loampit Hill, Lee High Road, part of Eltham Road),
- A205 (London Road/ Waldron Park Road/ Stanstead Road/ Brownhill Road/ St. Mildreds Road/ Westhorne Avenue),
- A21 (Molesworth Street/ Lewisham High Street/ Rushey Green/ Bromley Road)
- A200 Evelyn Street,
- A212 (Catford Hill/ Perry Hill/ Sydenham Road/ Westwood Hill),
- A2210 (Deptford Church Street/ Brookmill Road/ Thurston Road),
- A2211 (part of Lewisham Road),
- A2212 Burnt Ash Hill,
- A2216 (Dartmouth Road/ Kirkdale),
- B207 (Sandford Street/ Pagnell Street),
- B212(Prince of Wales Road/ Montpelier Row),
- B218 (Malpas Road/ Brockley Road/ Stondon Park/ Brockley Rise),
- B220 (Belmont Hill/ Lee Terrace),
- B2142 (Drakefell Road/ Gellatly Road),
- B236 (Adelaide Avenue/ Ladywell Road),
- B238 Honor Oak Park, Brockley Grove, Surrey Canal Road, Trundleys Road, Edward Street, Geoffrey Road, Friendly Street, part of Wickham Road, part of Sydenham Hill and Verdant Lane.
- Urban centres including New Cross Gate, New Cross, Lewisham and Catford town centres.

**Daily mean PM<sub>10</sub> Concentrations in 2004**

The prediction for the number of days exceeding the 24 hour mean of 50 µg/m<sup>3</sup> for 2004, (2001 met year) showed where PM<sub>10</sub> concentrations greater than 50 µg/m<sup>3</sup> occur for more than 35 days each year.

Once again it is clear that major roads provide a significant proportion of PM<sub>10</sub> concentrations in the Council's area although the PM<sub>10</sub> concentrations differ markedly from that of NO<sub>2</sub>, with the areas predicted to exceed being much smaller.

***Specific areas, found to approach or exceed the AQS objective and associated with major roads include:***

- Most of the A2 (New Cross Road, Deptford Broadway, Blackheath Hill/ Shooters Hill)
- A20 (Lewisham Way/ Loampit Vale, Lee High Road, part of Eltham Road),

- A205 (London Road, Stanstead Road, Brownhill Road, St. Mildreds Road, Westhorne Avenue),
- A21 (Molesworth Street, Lewisham High Street, Rushey Green),
- A200 Evelyn Street,
- A2210 Deptford Church Street,
- B218 (Brockley Road/ Stondon Park/ Brockley Rise) and B238 Honor Oak Park,
- Urban centres including New Cross Gate, New Cross, Lewisham and Catford town centres.

The modelling in the Stage 4 report clarified that the impact from the main road network across the Borough is substantial. Although the exceedances for PM<sub>10</sub> are less than for NO<sub>2</sub> it is important to set our actions in the plan that will help to reduce current levels for both pollutants.

### **PM<sub>10</sub> from construction sites**

The above modelling did not incorporate the impact from construction and other related infrastructure projects. Temporary air quality impacts are however likely to result from construction activities. Increased dust and locally elevated levels of particulate matter (including PM<sub>10</sub>) are among the effects of construction work. The air quality impact of most construction activity is primarily dust generated by equipment and vehicles. Fugitive dust is emitted during many construction activities and by wind over exposed earth surfaces.

Demolition, grading and earth moving are likely to comprise the major source of construction dust emissions, but traffic and general disturbances of the soil also generate emissions. Construction dust impacts are extremely variable, depending on wind speed, soil type, soil moisture, the type of construction activity and the area affected by construction activity. The highest potential for construction dust impacts will occur during the late spring, summer and early autumnal months when soils are dry.

Construction site operators therefore need to demonstrate that both nuisance dust and fine particle emissions from their sites are adequately controlled and are within acceptable limits. Following the commitment within the Mayor's Air Quality Strategy, the Greater London Authority (GLA) and London Councils have produced "Best Practice Guidance" to control dust and emissions from construction and demolition. The Guidance is discussed in more details under Section 4.2.5.

### **NO<sub>2</sub> and PM<sub>10</sub> annual mean at identified locations**

A series of specific point locations were selected for investigation to provide a representative understanding. The specific locations, which were identified within the AQMAs, are described in Table 3.1. The estimated annual mean NO<sub>2</sub> and PM<sub>10</sub> through the dispersion modelling are also reported in the table. A map showing the location of the sites is included in Annex D.



**Table 3.1 - Location of sites used for estimating NO<sub>2</sub> and PM<sub>10</sub> annual mean through dispersion modelling for relevant target years**

Location	Description	Base case NO <sub>2</sub> (2005 µg/m <sup>3</sup> )	Base case PM <sub>10</sub> (2004 µg/m <sup>3</sup> )
1	South East Combined Heat and Power Plant (SELCHP)	33.6	24.8
2	Silwood Street (nearest residential to SELCHP)	32.5	24.6
3	New Cross Road	<b>56.3</b>	35.1
4	Forest Hill (school)	<b>48.9</b>	32.7
5	Brockley (school)	<b>42.4</b>	28.3
6	<i>Blackheath Hill (residential)</i>	*	*
7	Lee Terrace (hospital)	<b>43.5</b>	28.6
8	Sydenham Road (school)	<b>42.0</b>	29.0
9	Lewisham Way (college)	<b>48.9</b>	31.6
10	Creek Road (health centre)	<b>50.0</b>	31.1
11	Trundleys Road (school)	<b>40.3</b>	26.3

\*Refer to comments in Annex E

All of the locations, apart from the two background locations 1 and 2 in residential areas close to the SELCPH, were predicted to exceed the NO<sub>2</sub> objective in 2005. The highest exceedance was predicted on the A2 New Cross Road (56.3 µg/m<sup>3</sup>), more than 40% above the relevant AQO.

At the time the modelling was carried out exceedances of the annual mean PM<sub>10</sub> objective for 2010 were predicted at all of the selected locations. This objective however was removed from the revised AQS published in July 2007 as discussed in Chapter 1.

### 3.3 Source Apportionment for NO<sub>x</sub> and PM<sub>10</sub>

To better understand the improvement needed at a location to achieve the AQS objectives, it is necessary to determine the individual source emissions that contribute to the overall predicted pollution concentration.

Both pollutant emissions and atmospheric processes, including meteorology, determine the pollution concentration at any given location. Traditionally pollution is determined only from an understanding of emissions derived from local sources and background influences. This, however, provides only a simplistic understanding within London as the pollution climate is further complicated by the actual size of London itself and the huge numbers of varying activities contributing to the source of emissions.

The pollutants under investigation, PM<sub>10</sub> and NO<sub>2</sub>, further complicate the understanding of source apportionment.

For NO<sub>2</sub>, the contribution that the different sources make to the predicted concentrations can only be understood by examining the contribution of NO<sub>x</sub> sources as the primary emission. This reflects the fact that the relationship

between NO<sub>2</sub> and NO<sub>x</sub> is non-linear and determined by photochemistry that is highly location dependent. The modelling undertaken to derive the predictions of NO<sub>2</sub> reflects this aspect.

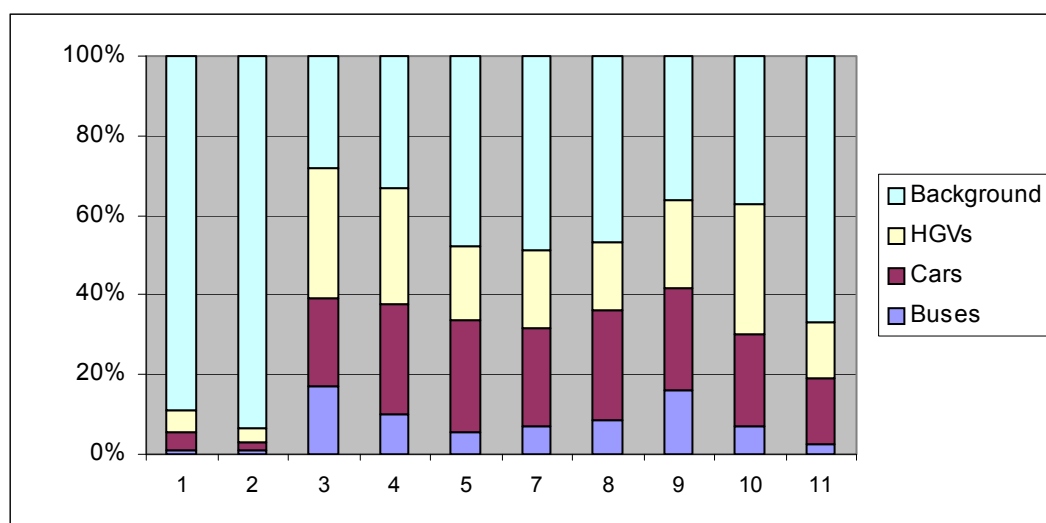
For PM<sub>10</sub> it is necessary to understand the influence of the primary, secondary and coarse components, which contribute to the total concentration. It is the 24-hour mean objective that is predicted to be exceeded. However, the source apportionment undertaken is based on the less stringent annual mean PM<sub>10</sub>, which is averaged over a longer timescale and therefore less affected by specific events.

## Nitrogen Oxides

The modelling and source apportionment carried out during the Stage 4 Assessment used input data from 1999. Contribution to NO<sub>x</sub> and PM<sub>10</sub> emissions from the following three categories of vehicles were calculated and are showed in the table below:

- HGV (i.e. all HGVs and LGVs other than cars, taxis and motorcycles)
- Cars (including all cars, taxis and motorcycles) and
- Buses and coaches

**Figure 3.2 Average estimated NO<sub>x</sub> emissions (%) at sites exceeding the NO<sub>2</sub> annual objectives for different source categories**



\* Background sites (1 & 2) and site 6 not included (for details see Annex)

The results highlighted that the vehicle related contributions vary by location, with the average contribution from background sources at sites where the AQO was exceeded was between 30 and 50%. The further modelling indicated that around 50% of the background emissions are due to background roads (roads beyond those modelled as directly influencing the location), other sources of the background component comprised emissions from other transport sources (railways, airports and shipping), and from domestic (including heating and cooking), commercial and industrial installations.

The Car and HGV categories greatly dominate total NO<sub>x</sub> concentration for all locations, other than 1, 2, 6 and 11. For the locations that are dominated by Car and HGV, the combined contributions either exceed or approach the background; in addition the individual HGV contribution at location 3 (New Cross Road) exceeds the background. The most polluted locations (3, 4, 6, 9 and 10) are close to busy roads in the Council's area, these being the A2, A205, A20 and A200.

The highest contributions from buses and coaches were predicted at locations 3 and 9, which are on main bus routes to and from central London and Lewisham town centre.

The average contribution to NO<sub>x</sub> emissions at sites found to exceed the objective was from cars was 25%, nearly equalled by the emissions from HGVs, while the average emissions from buses was 10%.

## Particulates

For PM<sub>10</sub> the proportions vary from that of NO<sub>x</sub> as a result of the different components that contribute to total PM<sub>10</sub>. In this instance the contribution from the background sources is most significant (approximately 70 - 99%), whereas road transport as a primary emission constitutes the other 1 - 30%.

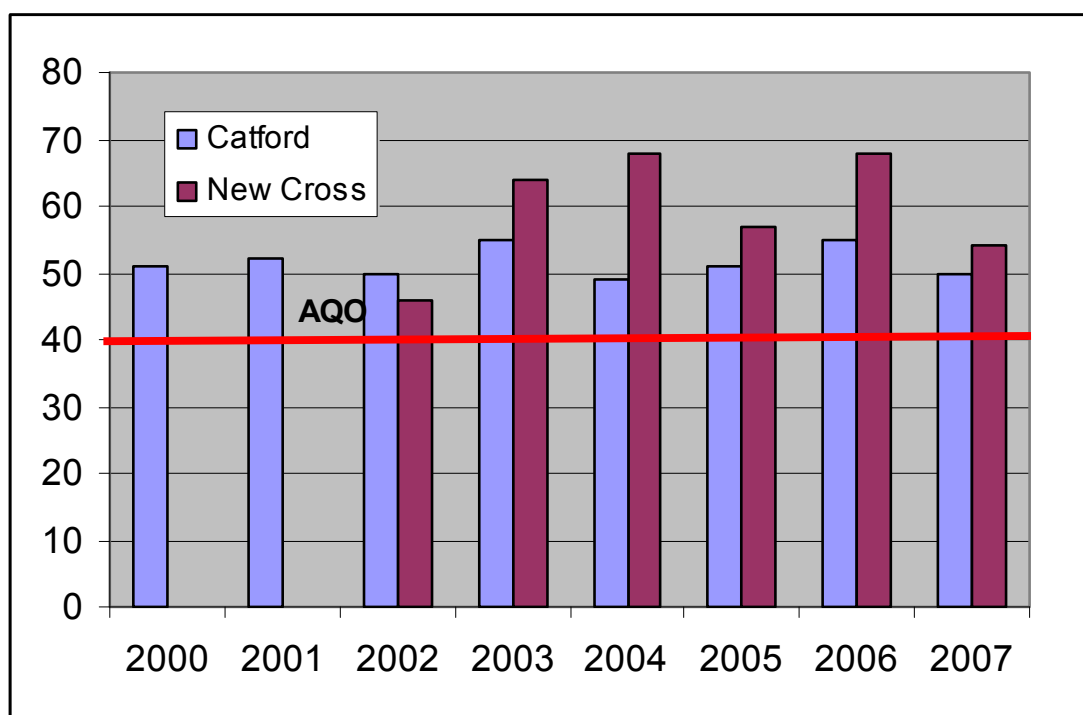
For the total background sources, road transport further contribute up to 36%, with the remainder arising mostly from secondary and coarse components, which are beyond the control of local authorities.

## 3.4 Current Levels of NO<sub>2</sub> and PM<sub>10</sub>

### NO<sub>2</sub> Monitoring Results

The annual mean results are illustrated in Figure 3.3. From this at the LW1 site it can be seen that the levels have hovered around the low 50's without any noticeable trend up or down. With the LW2 site there has been marked fluctuation in levels year on year, but the site has only been operation for less than 5 years, and several of those years have had low data capture rates so statistically it can't be used to establish any trends. The monitoring station is located at the side of a busy A road. Although volumes of traffic have been decreasing in recent years congestion has been increasing. A result of increasing congestion is also increased pollution.

**Figure 3.3 Annual Mean NO<sub>2</sub> concentrations (µg/m<sup>3</sup>) measured at LW1 (Catford) and LW2 (New Cross)**



*Note: data from Catford in 2000-1 and 2007 and from New Cross in 2002 and 2007 should be considered indicative due to low data capture or ratification procedure not completed.*

The results for the hourly objective are given in Table 3.2. This shows that the hourly objective has not been exceeded during any year of monitoring, although it highlights that 2003 was more polluted than other years, based on the number of periods above the hourly standard.

**Table 3.2 - Hourly mean NO<sub>2</sub> concentrations for the Borough of Lewisham (1999 – 2006) (µgm<sup>3</sup>)**

No. of hours > 200 µgm <sup>3</sup>	1999	2000	2001	2002	2003	2004	2005	2006
<b>Lewisham 1</b>	0	0	0	0	1	1	3	0
<b>Lewisham 2</b>	-	-	-	0	10	4	6	5

*Note- results in italics should be considered indicative due to low data capture or ratification procedure not completed.*

## PM<sub>10</sub> Monitoring Results

The results confirm for each year of monitoring that there have been days when the daily mean standard of 50 µgm<sup>-3</sup> was exceeded, with the current (i.e. 2004) daily mean objective only exceeded during 2003. The 2004 annual mean objective has not been exceeded over this period, although it was approached in 2003.

**Table 5 - PM<sub>10</sub> monitoring at the Lewisham 2 site (µg/m<sup>3</sup>)**

<b>Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<b>Annual mean</b>	31	37	31	30	30	30
<b>No. of days &gt;50µgm<sup>3</sup></b>	17	47	19	24	21	19

*Note-results in italics should be considered indicative due to low data capture or ratification procedure not completed.*

## **Current NO<sub>2</sub> and PM<sub>10</sub> Levels in London**

The London Air Quality Network (LAQN) is geographically comprehensive, providing air quality data on the following pollutants: carbon monoxide, nitric oxide, nitrogen dioxide, ozone, PM<sub>10</sub> and PM<sub>2.5</sub>. In addition, data is available from a limited number of sites operated by the Department of Environment, Food and Rural Affairs (DEFRA) and the London data is supported by measurements made by local authorities in surrounding areas. A summary of the provisional air quality measurements made during 2005 to the mid 2006 published by Kings College (London) reported the following conclusions with regards to NO<sub>2</sub> and PM<sub>10</sub>:

- A majority of road and kerbside sites exceeded the annual mean air quality strategy (AQS) objective for NO<sub>2</sub> of 40 µg m<sup>-3</sup>;
- Eleven sites exceeded the hourly AQS objective of 200 µg m<sup>-3</sup> not to be exceeded more than 18 times a year measured as a 1 hour mean;
- The PM<sub>10</sub> AQS objective (50 µg m<sup>-3</sup> not to be exceeded more than 35 times a year measured as a 24 hour mean & 40µg m<sup>-3</sup> measured as an annual mean) was exceeded at major and high volume residential road site monitoring sites;

Data from the London Atmospheric Emissions Inventory (LAEI) shows that road transport emissions, as a percentage of the total, dominate for all pollutants with the exception of SO<sub>2</sub> where industry produces comparable amounts. For NO<sub>x</sub> and PM<sub>10</sub> the contribution from transport is 41% and 70% of the total respectively.

Factors affecting the air quality in London include: the quantities emitted, the weather and topography. Weather has both positive and negative impacts on air quality by providing a mechanism for dispersing and diluting the emissions under windy conditions. Conversely, there are weather conditions that prevent dilution/dispersion occurring i.e. hot still days and during periods of temperature inversion. The weather also contributes emissions from other areas by acting as a transport mechanism bringing pollutants into London from surrounding areas. London lies in a natural basin, which in some periods restricts the dispersion of pollution. In Central London, the impact of tall buildings can lead to the street canyon effect preventing adequate dispersion and dilution of roadside pollution.

### 3.5 Conclusions

Air dispersion modelling showed that the NO<sub>2</sub> annual mean objective and the PM<sub>10</sub> daily mean objective were exceeded or approached within the 5 AQMAs declared in June 2001. The largest areas of exceedances were estimated for the NO<sub>2</sub> objective and highlighted that NO<sub>2</sub> is the pollutant of most concern within Lewisham AQMAs. The highest NO<sub>2</sub> concentration was estimated at the New Cross Road (A2) monitoring station site.

The results of the source apportionment highlighted that **road traffic is the main source of pollution at all the locations found to exceed or approach the NO<sub>2</sub> annual mean and PM<sub>10</sub> daily mean objectives.**

**HGVs (lorries and other heavy vehicles) and HDVs (cars and other light vehicles) were found to be responsible for 80% of the NO<sub>x</sub> emissions coming from traffic sources and contribute in roughly equal proportions to pollution levels at the locations exceeding the objective.**

Annual mean NO<sub>2</sub> concentrations measured at the New Cross Road continuous monitoring site was around 65 µg/m<sup>3</sup> in 2006 and around 55 µg/m<sup>3</sup> in 2007. The results for 2007 are provisional. Although reductions in NO<sub>2</sub> levels are expected due to the introduction of lower polluting vehicles and implementations of actions taken nationally to improve air quality, recent monitoring data collated across London show no significant downward trend in NO<sub>2</sub> and PM<sub>10</sub> over the last 5 years. It is evident that approximately **50% reduction of current level of NO<sub>2</sub> is required to achieve the AQO by 2010.**

The PM<sub>10</sub> objectives are currently not exceeded at the New Cross Road site. However previous modelling showed that the daily PM<sub>10</sub> is at risk of being exceeded, although at fewer locations than the NO<sub>2</sub> annual mean objective. PM<sub>10</sub> arising from construction sites was not considered in the modelling study. Major regeneration is ongoing and planned across the Borough – therefore the PM<sub>10</sub> remains a pollutant of primary concern.

## 4. Action Plan Proposals

### 4.1 Introduction

This chapter sets out the various actions considered to improve air quality within Lewisham and primarily within the AQMAs. As discussed in the previous chapters the NO<sub>2</sub> annual mean AQO is being exceeded within the Borough. Particles levels within the Borough are also of great concern.

It is clear from the results of the Review and Assessment process that road transport is by far the most dominating source of local air pollution. Considering the level of exceedance seen across the AQMA (Chapter 3) and the transport pressures identified in Chapter 2, that there is no single short-term solution for tackling the problem.

Therefore the Council has concluded that an integrated package of measures is needed to bring about significant change and improvements in local air quality. The package of measure described in this AQAP can be categorised in to the following headings:

- 1) Wide ranging measures to reduce emissions overall
- 2) Measures to promote cleaner technology and alternative fuels
- 3) Measures to encourage the use of alternative transportation modes
- 4) Measures to manage parking and traffic levels
- 5) Development Control Measures
- 6) Measures to reduce emissions from commercial and construction sites
- 7) Measures to reduce emissions from housing
- 8) Local Air Quality Management Measures
- 9) Measures to increase the awareness of air quality issues
- 10) Procurement

The above measures include a package of :

- Major long-term interventions – such as the extension of the rail network, road construction and road infrastructure changes, aimed to increase sustainable travel modes and reduce congestion
- Hard measures - such as parking controlled zones
- Soft measures and smarter choices – such as freight quality partnerships and travels plans
- Emissions reduction – such as changes to the local vehicle fleet and targeting idling vehicles
- Education and public information- such as campaigns, work with local schools.
- Development Control – ensuring minimum impact from major development and sufficient mitigation measures

## **4.2 Actions 1-3: Wide ranging measures to reduce emissions overall**

### **Action 1 – Support the introduction of London Low Emission Zone**

**The Council will support and promote the implementation of the London Low Emission Zone (LEZ) across the Borough.**

The implementation of the LEZ is expected to be the one of the most important measures available to Councils to bring about long-term reduction of current air pollution levels. The Low Emission Zone (LEZ) will be introduced on 4 February 2008, with a phased introduction through to January 2012.

The aim of LEZ is to improve air quality in London by deterring the most polluting vehicles from being driven in the area. Affected vehicles include older, diesel-engined lorries, buses, coaches, large vans, minibuses and other heavy vehicles that are derived from lorries and vans, such as motor caravans and motorised horseboxes. Different vehicles will be affected over time and increasingly tougher emissions standards will apply. Cars, motorcycles and small vans will not be affected.

### **Definition of Low Emission Zone (LEZ)**

An LEZ is a defined area where only vehicles that meet a certain emission standards would be allowed to enter. The main purpose of the zone would be to improve air quality by removing older more polluting vehicles, which would not meet the emission standards or Euro Standards as they are known (see vehicle standards later in the chapter for further details). It is thought that the LEZ may also deliver additional 'liveability' and congestion benefits by reducing traffic noise, which allows Councils to work towards meeting their targets under the new Noise Mapping scheme and reducing overall traffic volumes.

The LEZ should have a knock on effect in that the turnover of vehicle fleets should increase, thus the amount of alternatively fuelled or low emission vehicles in circulation should also increase..

### **Objectives**

The objective of the Low Emission Zone (LEZ) is to improve air quality in London. London has the worst air pollution in the United Kingdom and amongst the worst in Europe, adversely affecting the health and quality of life of many Londoners. The Mayor of London has a legal obligation to take steps



towards meeting national and European Union air quality objectives, which are designed to protect human health.

In London, road transport is the single biggest source of Particulate Matter (PM<sub>10</sub>) and oxides of Nitrogen (NO<sub>x</sub>). These are the primary causes of air quality-related health problems, including asthma. The Mayor believes a Low Emission Zone is the most effective way to achieve reductions of the most harmful road transport generated emissions in London.

## **Area of operation**

The Low Emission Zone (LEZ) covers most of Greater London following the Greater London Authority boundary. In some places the LEZ deviates from the Greater London Authority boundary in order to allow for suitable alternative routes and turnaround points.

All roads, including certain motorways within the LEZ boundary are included within the Zone. The M25 motorway is not included in the LEZ even where it passes within the boundary. The LEZ will be clearly identifiable by:

- Signs at the boundary informing drivers they are entering the zone
- Signs on roads outside the zone giving advance warning to drivers that they are approaching the LEZ
- Signs approximately every 5km within the zone to let drivers know they are within the LEZ

## **Enforcement**

The Low Emission Zone (LEZ) will be enforced using fixed and mobile cameras, which will read vehicles' number plate (or Vehicle Registration Mark) as they travel within the Zone and check them against a database.

If a vehicle is identified as not meeting the LEZ emissions standards, and the required daily charge has not been paid for the date of travel within the Zone, then a penalty charge may be issued to the registered keeper of the vehicle who is liable for the payment of the penalty. Through a dedicated European debt recovery agency TfL has established links with many of the European Vehicle Licensing Agencies and will always issue and recover penalties in relation to non-GB registered vehicles where it is possible to do so.

## **Benefits**

Improved air quality should mean:

- fewer premature deaths for those suffering from cardiovascular or respiratory disease
- reductions in hospital admissions for people with respiratory illnesses

- fewer days of impaired activity for those sensitive to the affects of air pollution
- improved quality of life for Londoners, especially those with existing respiratory and cardiovascular conditions

Almost two thirds of particulate matter and half of the emissions of oxides of nitrogen (two of the key pollutants of concern in London) are from road transport. A London low emission zone would have modest benefits in improving overall emission levels and absolute air quality concentrations in London, but it would make a larger contribution to reducing exceedances of the air quality targets. The recommended LEZ would have greatest impact in targeting PM<sub>10</sub> emissions and air quality exceedances. It would also have a small benefit in reducing noise across London and in later years, it could potentially lead to reduced emissions of the greenhouse gas, carbon dioxide<sup>4</sup>.

## **Lewisham Scenario Testing for LEZ**

To test the effectiveness of the LEZ on improving air quality within the Lewisham AQMAs a scenario testing was undertaken as part of the Stage 4 Further Assessment in 2004. Details, including the assumptions made for the scenario testing are reported in Annex F. The results represent the predicted concentrations at the same locations as used for the earlier source apportionment work, detailed in Chapter 3.

For NO<sub>2</sub> the predicted improvement due to the implementation of the LEZ in Lewisham was found to be sufficient to ensure that levels at four out of nine locations with predicted exceedances would reduce sufficiently to meet the annual mean objective (locations 5, 7, 8 and 11). The predicted improvement varied between 4 and 6 µg/m<sup>3</sup> (i.e. between approximately 9 and 13% improvement).

The scenario testing described above was not based on the same criteria as the LEZ scheme that is to be implemented in 2008. Additionally the Lewisham LEZ scenario testing is likely to overestimate improvements in air quality following the implementation of the scheme, due to a number of reasons. For instance the initial implementation of the scheme has now been postponed to February 2008. Additionally, it is expected an increase in primary emissions in nitrogen dioxides from less polluting euro engines which was not considered. However the LEZ is a feasible action that can be implemented within Greater London to enormously accelerate reductions in emissions from traffic, which would otherwise slowly decrease as a result of the continuing uptake of technology.

Clearly, whilst the interventions of an LEZ will undoubtedly bring about some marked changes it will not in itself be the answer to all of Lewisham's problems. Other measures documented in this chapter in addition to the LEZ will hopefully bring about the change that is desperately needed.

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<sup>4</sup> <http://www.tfl.gov.uk/assets/downloads/LEZ-Health-Impact-Assessment-Summary.pdf>

## Action 2 - Vehicle Emissions Testing

**The Council will aim to reduce emissions from the most polluting vehicles and raise awareness on vehicle exhaust emissions through roadside checks or voluntary testing.**

The annual MOT test required for every vehicle over three years old includes the measurement of emissions carried out by authorised examiners. Roadside emission testing may be used by local authorities in England and Wales which have declared a traffic-related air quality management area (AQMA) under s.83 of the Environment Act 1995. Under these provisions authorised personnel may carry out a roadside test, if emissions exceed the permitted level a fixed penalty notice may be issued, or the driver may be asked to produce a certificate demonstrating that the vehicle has been fixed.

Vehicles with high emissions are often poorly tuned or not running efficiently, costing drivers money as well causing unnecessary pollution. There is good evidence to show that a large proportion of vehicle emissions comes from a small number of gross polluters who do not maintain their vehicles properly.

### ***Roadside emission testing (RET)***

The Vehicle and Operator Services Agency (VOSA), part of the Department of Transport, carries out roadside vehicle emissions checks on vehicles, in order to ensure they meet the relevant MOT emissions standards. If a serious defect is found a prohibition notice will be issued. The prohibition is a legally enforceable ban on driving the vehicle on the road. For very serious breaches the ban can be immediate, but where there is no immediate danger to other road users it can be delayed for up to 10 days. This gives the motorist time to rectify the fault and arrange to have the vehicle re-examined (normally this will require the vehicle to pass a new MOT test) before the prohibition can be removed.

The enforcement could be conducted so that drivers have a reasonable amount of time to carry out any required work to their vehicle. However the VOSA branch covering the Lewisham area has not allocated any funding for RET in 2008. The Council officers are in contact with VOSA to investigate alternative solutions also following the introduction of the LEZ and its proposed extension to cars and other light vehicles.

### ***Remote sensing technology***

There is concern that the MOT test does not reflect a vehicle's emission performance when it is actually used on the road. A new technology has recently become commercially available in the UK which is able to remotely detect vehicle emissions (including NO<sub>x</sub>, carbon dioxide), alongside number plate recognition without having to stop drivers, speed and acceleration are

also measured. The result of the test can be displayed instantaneously to drivers on a Variable Message Sign. Drivers of the highest polluting vehicles could be contacted directly and offered advice regarding servicing of their vehicle. The survey could be undertaken in conjunction with the launch of campaigns or events (e.g. eco-driving, car-sharing, travel planning) and cumulative effects may be significant.

The implementation of the above schemes aims to reduce the pollution from old vehicles and to raise public awareness on local air quality. This scheme could be an alternative to the RET in the event of VOSA support not being available.

Voluntary emission testing using remote sensing technology has been successfully implemented in Bristol. The Council will seek funding through the Air Quality Grant in order to implement this action.

## Action 3 – Measures to address Idling Engines

**The council will implement schemes aimed to reduce pollution from stationary vehicles and raise awareness on emissions from idling vehicles.**

Section 87 of the Environment Act 1995 empowers the Secretary of State for Transport to make regulations giving new powers to local authorities for and in connection with implementing the national air quality strategy. To this end the Road Traffic (Vehicle Emissions) (Fixed Penalty) (England) Regulations 2002 enabled local authorities to issue fixed penalty notices to drivers who allow their vehicle engine to run continually whilst the vehicle is stationary.

The regulations came into force on the 18<sup>th</sup> July 2002 and the aim of the scheme is to help in the reduction of unnecessary exhaust emissions from the small number of gross polluting vehicles on London's streets and, more importantly, to educate drivers to have regard to the local environment around them.

As the scheme is implemented on an advisory basis the vast majority of people will not face a £20 fixed penalty notice but local authorities reserve these powers for persistent or obstructive offenders. Although these powers alone will not bring huge improvement in air quality they are useful in particular areas where a localised effect can be seen such as lorry or coach parks.

Croydon was the first borough in London to use the powers using Specialist Pollution officers to undertake idling vehicles patrols and have recently begun trials using Parking Attendants to carry out this enforcement. Other initiatives implementing elsewhere in London include: targeting problematic construction sites in Hackney, targeting schools in Hillingdon and a TfL scheme aimed to bus driver training & signs at bus stands. Signs have been effectively introduced also at level crossings in West Sussex and Brighton & Hove City Council to encourage drivers to switch off their engines when waiting.

The Council is investigating the following actions aimed to reduce pollution from idling engines:

- a) Record complaints on idling vehicles, monitor pollution hotspots, carry out observations in response to complaints from the public and issue warnings to individuals through the EH enforcement team
- b) Introduction of signage requiring drivers to switch off their engines when stationary in areas where vehicles may be found idling unnecessarily such as schools drop on-off areas, loading bays, taxi stands. Signs at bus stands in Lewisham are already being introduced through a TfL London-wide initiative.

c) Campaigns targeted to specific categories of drivers (e.g. lorry drivers, parents) aimed to raise awareness on the impact of idling vehicles.

d) Introduction of enforcement patrols with powers to issue warning and fines.

The feasibility and timescales for implementing the above actions is highly dependant on availably of funding and resources. Action “a” is being implemented. The implementation of actions “b” and “c” within a short timescale will be dependant on availability of funding, which the Council will seek through the Air Quality Grant. The implementation of action “d” will be considered in the medium/long-term if the above “softer” actions are found to be ineffective.

### **4.3 Actions 4-7: Measures to promote cleaner technology and alternative fuels**

There is a need to reduce car travel across the Borough in order to reduce traffic congestion, improve the business-operating environment, reduce greenhouse gas emissions, improve personal safety, improve bus reliability and improve air quality and health.

In order to bring about a change across the Borough the Action plan will focus on two main areas:

- 1) Reduction of traffic volumes and
- 2) Greater use of alternative fuels and technology to reduce emission from various sources including motor vehicles.

Although the general increase in car usage (Chapter 2) is clear and whilst several measures have been implemented across the Council to reduce the use of the car and encourage the use of alternatives modes of transportation, it is evident that the car will still be used for a percentage of Borough residents. Whilst this is the case, the next best approach is to try to educate and encourage residents, business and the Council itself to use alternative fuels or technology in an effort to reduce emissions from motor vehicles.

## **Action 4 – Measures to encourage the Use of Cleaner Technology and Alternative Fuels in Council and Contractors Fleet.**

- **The Council will proceed with the scheme to change the Councils fleet to greener, cleaner fuels as vehicle leases are renewed.**
- **The Council will increase the use of pool vehicles, with electric or clean fuel power in the fleet**
- **The Council will encourage the use of alternative fuels and technologies in the specification for re-letting of Council contracts.**
- **The Council will encourage the use of cleaner technology and alternative fuels by providing sufficient refuelling points across the Borough.**
- **The Council will work with fuel suppliers to encourage the development of sites with alternative fuel refuelling points**
- **The Council will work with industry and neighbouring local authorities to promote alternative refuelling locations**
- **The Council supports parking concessions for alternative fuelled vehicles throughout the Borough.**

The use of variety of alternative fuels and technologies to reduce emissions from the Council fleet have been introduced or are being investigated.

### **Lewisham's response to the use of cleaner technology and alternative fuels**

The Council recognises the many benefits of energy conservation and is committed to improving energy efficiency in the Borough in order to ensure the comfort and well being of its people through the implementation of its Energy Policy. This include a commitment to the following measures:

- Use vehicles with low fuel consumption and pollution reducing technology to ensure their regular servicing and energy conscious operation
- Promote and facilitate the use of alternative modes of transport.



## **Lewisham's Council Fleet**

The Council is committed to improving the efficiency and cleanliness of its own vehicle fleet by bringing about changes through fleet procurement strategies and effective maintenance, which will help to reduce emissions.

Lewisham Council provides a wide range of core services to the community that require some form of vehicles transportation. These services include:

- School Buses
- Building Services
- Trade and Domestic Waste Collection
- Passenger Services
- Housing Services and Repairs
- Social Services
- Pest Control
- Environmental Enforcement Team
- Homeless Persons Team
- Occupational Therapy
- Waste Management and Energy Efficiency Teams
- Youth Services
- Street Lighting

Although the Council is committed to using the 'cleanest' fuels possible, the opportunity for alternative transport options to ensure that these services are met is not always possible, especially with the more remote parts of the Borough. However, the Council is committed to using the greenest fuels possible, taking into account the cost effectiveness and service demands.

The Council currently operates a fleet of approx 400 vehicles, mainly based at Wearside Depot, Ladywell. The types of vehicles used are:

- Assorted large and small Vans
- Tippers
- Tractors
- Mini coaches - 7 seaters
- LPG and electric cars
- Refuse Collection Trucks
- Mini-Buses
- Street Cleaning
- Coaches (including those with tail lifts)
- Buses

The usage of alternative fuels in 2007 for Lewisham's light vehicle fleet and the proportion of fleet vehicles in relation to European Emissions Standards are shown in the Tables below. By February 90% of the bus fleet will be EURO IV and the remainder will be EURO III standard (total 71 Buses).

**Table 4.1 Alternative fuels usage in 2007 - Lewisham's light vehicle fleet**

Type of fuel	Oct-07
Electric	1%
Liquid Petroleum Gas (LPG)	15%
Ultra-low Sulphur Diesel (ULSD)	0%
ULSD with CAT	0%
Biofuel (5%)	85%
Petrol *	0%
Diesel	0%

\*None of the Fleet vehicles are run solely on petrol. Petrol is used in items of plant machinery and for initial starting up of LPG vehicles .

**Table 4.2 Proportion of fleet vehicles in relation to European Emissions Standards**

	2002	Oct-07
PRE – EURO	42%	
EURO I	42%	
EURO II	6%	31%
EURO III	10%	34%
EURO IV		35%

In 2001/2 the Council adopted the “Environmentally Friendly Fuel and Vehicle Plan” which lays out criteria for procuring fleet vehicles for use by LBL. These criteria are still in use, given the mixed guidance provided by the Gov over the last five years. LBL vehicle specifications are as follows:

#### Cars and Light vans

- 1<sup>st</sup> Choice Electric where it meets operational needs and vehicle type is available
- 2<sup>nd</sup> Choice LPG where the above is unsuitable
- 3<sup>rd</sup> Choice latest Euro level diesel +5% Bio-Diesel

#### Small Buses and Medium Vans

- 1<sup>st</sup> Choice LPG where it meets operational needs and vehicle type is available
- 2<sup>nd</sup> Choice latest Euro level diesel +5% Bio-Diesel

Large vehicle (i.e. lorries for refuse collection)

- 1<sup>st</sup> Choice Latest level Euro level diesel +5% Bio-Diesel

## **The Councils three point approach**

There are currently several factors accelerating the drive towards alternative fuelled vehicles, including environmental issues, the GLA Air Quality Strategy, UK and EU legislation on manufacturers and the availability of grants. The Borough has taken these steps to fulfil its obligations:

- The Council has produced energy and environmental policies to move towards a totally 'green' alternatively fuelled fleet in the future, as technology and grant funding permits. National grants for alternative fuelled vehicles have recently been withdrawn.
- The Council has introduced a significant number of vehicles using alternative fuels in recent years and this programme will continue to convert the fleet. The government however has recently moved away from directly influencing the market for alternative fuelled vehicles in favour of reducing CO<sub>2</sub> emissions through conventional fuels and the promotion of bio-diesel (targets set for all diesel engined vehicles in the UK to run on 5% bio-diesel by 2010). LBL already uses 5% bio in all its diesel vehicles.
- The Council has installed a LPG refuelling point at the Wearside Council depot.

## **Fleet Replacement Programme**

The Council recognises that there are significant environmental improvements to be found by having fleet replacement policies, which include the reviewing of current vehicle stock and procuring vehicles which use "cleaner" fuels. Other incentives such as reductions in excise duty for 'cleaner' vehicles are also offered which ensures an extra financial benefit for lowering emissions. This now occurs automatically with the introduction of Euro IV vehicles from October 2006 and Euro V from October 2009, both qualifying for reduced excise duty due to the reduction in CO<sub>2</sub> emissions.

The Council's fleet is reviewed each year and replacements are normally proposed every 10 years for all type of vehicles. An in-depth review is carried out when the vehicles is due to be replaced. The review considers mileage, cost of maintenance, cost of renewal to the department and wear and tear. It may be more cost effective for the vehicle in question to remain in the fleet, especially if a viable 'cleaner' option is not available.

Where the review has assessed that a new vehicle is required, the latest Euro level engine vehicle is purchased and fuelled with 5% bio-diesel, LPG or electric model depending on the department's operational needs.

The Council has considered the option of using Liquefied Natural Gas (LNG) for certain types of larger vehicles but the loss of payload due to the weight and size of the tanks prohibits the fuel's use. The increase to the overall mileage of the vehicle due to constant refuelling and its limited range makes it currently uneconomical as an option.

In conclusion the Council is committed to changing the fleet to use greener, cleaner fuels as vehicle leases are renewed or vehicles come up for replacement and to increase the use of pool vehicles with an electric or clean fuel powered fleet.

### **Maintenance Programme**

Regular and effective maintenance of vehicles is the key to ensuring that emissions from existing vehicles are minimised. The Fleet management department regularly services and inspects all vehicles according to manufacturers' guidelines on a rolling planned schedule. MOT tests are carried out yearly on all vehicles regardless of age.

All diesel fuel used by the Council is ultra low sulphur 5% bio-diesel, which is supplied via the refuelling facility at Wearside. The Council also has one LPG refuelling point and nine electric recharging points at the same depot.

The Council operates the "Am I driving well?" service for members of the public to report any problems they see with a Council vehicle. The details of this service are displayed on the back of all fleet vehicles, including the contact telephone number.

Good driving techniques can also assist in reducing emissions and provide fuel savings and a reduction in accidents. The 'safe manoeuvres' driving scheme has been implemented and to the end of 2003 approximately 80 drivers have undergone driving assessments to raise and enhance knowledge, awareness and understanding of driving in a more controlled, energy-efficient way to maximise vehicle efficiency and safety.

### **Funding of Replacement Vehicles**

The Borough purchased alternative fuelled vehicles in the past using grants from the Powershift programme run by the Energy Saving Trust to promote the use of alternative, cleaner fuel vehicles. Grants for alternative fuelled vehicles have recently been withdrawn.

The Borough has also reduced emissions from diesel vehicles through the use of ultra-low sulphur diesel and through the installation of particulate traps, financed by Cleanup grants.

### **Best Practice Scheme**

This is a programme that offers practical advice and solutions to help business to improve the environmental performance and cost effectiveness of transport operations.

The scheme offers information on three key fields:

- Fleet Management - improving fuel efficiency and minimising vehicle use
- Freight - fuel management and improved logistics efficiency
- Travel plans - a package of measures to reduce dependency on single-occupancy car travel for business and commuter travel and to schools

## **Action 5 – Measures to encourage the Use of Cleaner Technology and Alternative Fuels in Public Transport Vehicles**

- **The Council will introduce greener, cleaner vehicle within the bus fleet**
- **The Council will participate in the London Bus Priority Network and London Bus Initiative**

Despite increasing car ownership, more than 47% of residents in Lewisham do not have access to a car at all so rely heavily on public transport (Chapter 2). In addition, to encourage the remaining percentage to use public transport instead of the car for journeys to work, shops and leisure facilities the following objectives need to met for both groups:

- Cheap fares
- Improved access
- Improved service levels
- Shorter journey times
- Improved reliability
- Better and safer interchange and waiting environment.
- More information (particularly 'real time')
- Better, cleaner, quieter buses.

The Council supports the provision of public transport by:

- using its powers in relation to the provision and management of local roads and car parking. Also to control development so as to support the provision and operation of good public transport services, including measures to improve the reliability and enhance overall journey times of buses;

- seeking to ensure that all public transport services are responsive to the travel needs of the resident population and public services;
- resisting any reduction in the present levels of bus, underground and overground rail services in the Borough and pressing the relevant organisations to increase resources to provide higher quality services;
- supporting new and existing public transport schemes, provided that they show a clear balance of advantage to local residents and that any adverse impact on the environment is minimised;
- supporting initiatives which help improve the environment of bus stops, bus and rail stations, railway embankments and bridges;
- supporting and facilitating the introduction of bus priority lanes and traffic management measures to give priority to buses;
- supporting initiatives to combat crime or fear of crime in relation to public transport provision.

To this end the Council has been involved in several schemes and partnerships to encourage the wider use of public transport across the Borough.

## **Bus Reliability**

Surveys of the reliability of all bus services in the Borough are regularly undertaken in order to find out the routes and locations where performance is best/worst. Discussions are then held to ascertain the causes of unreliability. Where these causes are related to traffic congestion and are within the Borough's control, appropriate measures can be taken to help improve the situation. Locations which have been identified in previous surveys are at Lewisham Town Centre, Catford Town Centre and Forest Hill. To this end, Lewisham will continue to give full support to the London Bus Priority Network (LBPN) and the London Bus Initiative (LBI).

## **Bus Priority, Accessibility and Social Inclusion**

The Council has welcomed the use of bus priorities in its area through the Selection Vehicle Detection Scheme (SVD) at traffic signals, the London-wide Bus Priority Network (LBPN) and its extension to whole routes, and further through the London Bus Initiative (LBI), particularly with TfL's commitment to funding. Progress on these initiatives is noted elsewhere in this document and within the BSP.

The above heading covers two factors :-

- penetration of residential areas by bus services.
- the ability of all sections of the community, particularly women, the elderly, people with disabilities and people from ethnic minorities to use the services.

In terms of penetration, the Council has ensured that all residential areas are within 400m. of a bus route and will press for finer graining of these services with improvements in terms of the vehicles used and their regularity.

The Council has expressed concerns about the use of inappropriate vehicles on some routes and will work with London Buses to overcome the problems of accessibility. Midi-buses of appropriate dimensions should be considered where roads are too narrow for full size buses. In the past, to improve penetration of residential areas, the Council sponsored "Centre-Link" bus services and has been successful in negotiating with London Buses to secure the implementation of permanent routes based on some of these sponsored services.



Council policy is to protect residential areas from through traffic and it will implement schemes that reduce such traffic, calm the speed of vehicles and improve the safety and convenience of cyclists and pedestrians. The Council will consult with the relevant bus operators to ensure that any proposed scheme is not detrimental to bus operation in an area.

In order to prevent through traffic movements, but at the same time allow good bus access, it will be necessary to consider physical measures to provide 'Bus Only' access. This can be achieved by using innovative measures such as rising bollards and surveillance by CCTV cameras of remote bus lanes or gates which circumvent and provide alternative access for buses at width restrictions or road closures.

The Council welcomes London Buses' commitment to making the whole fleet consist of low floor buses designed with lower step heights and easier internal circulation. In this respect the Council welcomes the extension of use of vehicles so designed and has begun a programme of physical changes at bus stops to assist low floor operation by providing uniform kerb heights.

### **London Bus Priority Network (LBPN)**

The London Mayor's Transport Strategy emphasises the need for partnership to deliver its objectives. The importance of partnership working, particularly to deliver at the strategic level, has long been recognised by the Council. Bus routes and improvements to those bus routes need to be coordinated across boroughs. To this end, the Council has been a longstanding player in the delivery of the London Bus Priority Network (LBPN). The LBPN was originally an 865km network of borough roads across London that complemented the Priority (Red) Routes. It was developed in 1994 by the 33 boroughs and London Transport who jointly developed (in liaison with the Government Office for London (GOL) and the then Traffic Director for London) a cross-boundary bus priority network for the whole of London. Up to the end of March 2004 the LBPN project/partnership has resulted in the boroughs implementing over 3,500 bus priority schemes.

### **Draft LIP Programme 4G.6 Streets for All: Effective Traffic**

Management The Council will (subject to available funding) work to develop and deliver a programme of Red Route-type 'parallel initiatives on the parts of the 'Network of 'A' Roads and Busy Bus Routes' for which it is responsible, the nature of that programme being dependent in part on the level and timing of funding.

Schemes introduced in Lewisham through this programme are highlighted in the Lewisham Local Implementation Plan available from the Council web-site.

## **Associated Measures**

### **Planning**

The measures laid down in the Unitary Development Plan (UDP) are as follows:

#### **TRN 10 - Protection and Improvement of Public Transport**

*The Council will support the provision of public transport by:*

*(a) using its powers in relation to the provision and management of local roads and car parking and the control of development, so as to support the provision and operation of good public transport services, including measures to speed buses improve the reliability and enhance overall journey times of buses;*

*(b) seeking to ensure that all public transport services are responsive to the travel needs of the resident population and public services;*

*(c) resisting any reduction in the present levels of bus, underground and overground rail services in the Borough and will press the relevant organisations to increase resources to provide higher quality services;*

*(d) supporting new and existing public transport schemes provided that they show a clear balance of advantage to local residents and that any adverse impact on the environment is minimised;*

*(e) supporting initiatives which help improve the environment of bus stops, bus and rail stations, railway embankments and bridges;*

*(f) supporting and facilitating the introduction of bus priority lanes and traffic management measures to give priority to buses;*

*(g) supporting initiatives to combat crime or fear of crime in relation to public transport provision.;*

*(h) encouraging the provision of public transport, travel information and signage throughout the Borough.*

The availability and use of public transport is a very important consideration in relation to locational policies designed to reduce the need to travel by car. For

these policies to be truly effective a good standard of public transport provision is necessary.

The Council therefore needs to support those organisations which provide the service and encourage them to make improvements that benefit Borough residents.

The Council can also play its part in better public transport provision by implementing bus priority measures such as bus lanes, selective vehicle directions detection at signalled junctions and enforcement of parking controls. The Council can also identify gaps in service provision, the need for new services and the need for increased frequencies on existing services and press the transport providers on these issues.

## **Action 6 – Measures to encourage the Use of Cleaner Technology and Alternative Fuels in taxis**

- **The Council supports the Mayor in specifying that all new taxis will meet Euro III standard as indicated in the Mayor's Air Quality Strategy**
- **The Council will encourage an increased turnover rate for older taxis to alternative fuels and highlight the importance in the improvement of maintenance standards.**

Travelling in a traditional taxi is a unique, convenient and easy method of getting from place to place and, more importantly, from 'door to door' throughout London. Taxis can be hailed in the street or located on designated ranks, which are situated at prominent places, including many mainline rail, underground and bus stations

With the introduction of the Private Hire Vehicles (London) Act 1998 the role of the Public Carriage Office (PCO) has extended to include the licensing of private hire operators, drivers and vehicles. Implementation of the legislation has been phased, with operator licensing near completion and driver licensing at the end of a consultation process. Over 2000 operators have applied and it is estimated that there are about 40,000 drivers and a similar number of vehicles.

The Private Hire Vehicles (London) Act 1998 provides for the licensing and regulation of private hire operators, drivers and vehicles in London, bringing the capital in line with the rest of England and Wales. The Government delegated the task of licensing London's private hire trade to Transport for London (TfL). The Public Carriage Office will carry out day-to-day licensing on behalf of TfL

The purpose of regulation is to give passengers confidence, when they use a licensed private hire operator, that they are dealing with an honest, professional organisation with reliable drivers and safe vehicles.

### **Emissions strategy for taxis – Vehicle age limit**

London has the worst air quality in the UK and air pollution has a major impact on health and quality of life.

The London taxi fleet is estimated to be responsible for 12 per cent of the oxides of nitrogen (NO<sub>x</sub>) and 24 per cent of the particulate matter (PM<sub>10</sub>) from road transport emissions in central London.

The Mayor's Taxi Emissions Strategy for licensed London taxis requires all vehicles to be of Euro 3 emissions standard or better by 30th June 2008.

The Public Carriage Office is implementing the strategy in two phases:

Phase 1 affects black taxi fleet, which currently meet pre-Euro, and Euro 1 emissions standards being presented for annual licensing between 1st July 2006 and 30th June 2007.

Phase 2 affects all black taxis, which currently meet Euro 2 emissions standards, and all Metrocabs which currently meet pre-Euro, Euro 1 or Euro 2 standards being presented for annual licensing between 1st July 2007 and 30th June 2008.

This Strategy is part of the LEZ, will be implemented through TfL's Public Carriage Office, who license London's taxis<sup>5</sup>. Taxi drivers will be able to meet the requirements by bringing forward the date at which they planned to invest in a new, cleaner cab, fitting abatement technology or converting to run on alternative fuels. Funding for these options will be provided through a small environmental surcharge on each fare, from April 2005.

### **Benefit of the emissions strategy**

Taxis are responsible for 24 per cent of fine particle and 12 per cent of nitrogen oxide of road transport emissions in central London.

Taxis retrofitted with emissions reduction equipment are expected to reduce their NO<sub>x</sub> emissions by at least 46 per cent. Their Particulate Matter emissions will be reduced by at least 34 per cent.

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<sup>5</sup> [http://www.london.gov.uk/mayor/environment/air\\_quality/mayor/taxi\\_emissions.jsp](http://www.london.gov.uk/mayor/environment/air_quality/mayor/taxi_emissions.jsp)

## **Action 7 – Measures to encourage the Use of Cleaner Technology and Alternative Fuels in Delivery and Freight Road Vehicles**

- **The Council supports the use of the River Thames (in certain circumstances) as a means of freight and passenger transportation, thus negating the need to use the car and offering another choice of transportation for residents and commercial companies alike**
- **The Council supports the use of trains as a means of freight transportation thus negating the need to use road vehicles for distribution purposes**
- **The Council will actively seek a more efficient delivery service from large commercial companies who have a Council contract. This will ensure that a quality delivery service with fewer deliveries is implemented rather than a quantity service.**

The Council encourages the transfer of goods from road to rail and river and welcomes planning applications, which seek to improve rail and river use for these purposes. Lewisham is an active member of the South London Freight Quality Partnership.

The South London Freight Quality Partnership will implement specific actions aimed at improving air quality, safety, reducing noise and increasing operational efficiency of the freight transport industry.

<http://www.southlondonfqp.com>

SLFQP is the premier forum for freight issues within the South London area. Its aim is to develop a common understanding of freight transport issues among the membership and promote constructive solutions, which reconcile the need for access to goods and services with local environmental, social and safety concerns.

Planning applications which involve the increased use of the River Thames for both freight and passenger transport will be supported, provided suitable access is provided and the environmental quality of the river and surrounding land uses are protected.

At present lorries are essential for serving societies' needs, but there is a constant clamour to resist their use. Freight movement and how it is tackled within the inner-urban environment is a subject that is very difficult to manage. Everyone generally agrees that we should make better and more use of our railways, rivers, and canals to achieve a shift away from a road/lorry based culture to a more balanced and environmentally friendly mix.

Lewisham supports the Mayor's initiative to set up a 'Sustainable Distribution Forum' and will assist locally by setting up our own forum that will hopefully lead to a 'Freight Quality Partnership' (FQP) being formed. Engaging the right people will be essential in gaining any practical outputs. These forums will help develop FQPs that should aim to:

- Improve the efficiency of distribution through improvements to the transport infrastructure and by working with industry to promote more efficient distribution practices.
- Promote safer driving through provision of better rest facilities and segregation of traffic (more relevant to outer London).
- Meet targets for local air quality, CO<sub>2</sub> emission targets by promotion of best practice and the use of quieter less polluting means of transport. An example of this might be Lewisham's pilot project for local distribution of packages by cycle courier in Sydenham Town Centre.
- Promote more efficient use of the freight network by creating better links.
- Deal with freight issues specific to the urban environment.

### **Road-freight and Town Centres**

FQPs should be closely linked with town centre management as these are usually the trip end destinations for most lorries. The principles set out elsewhere in this document would apply in any action planning that might be forthcoming from a FQP. Lewisham looks forward with interest to the results of trials of 'no car' lanes in London. Lewisham also supports the overnight and weekend lorry ban.

### **Rail freight**

During the 60s, 70s and 80s when attitudes to road freight were different, a major shift took place that saw companies move away from rail.

Understandably, British Rail and subsequently Network Rail followed a programme of re-development of their generally neglected and derelict freight

yards and sidings so that very few remain available today. To try and re-introduce this rail-road interface would be very expensive and problematic and is unlikely to be achievable to the necessary sustainable levels in inner London.

However, the Council does support the proposition of a new heavy rail river crossing east of London and a further route to the south via the North Downs Line. This should allow orbital freight movement that excludes passage through London itself and would have the added advantage of “freeing up” train paths for additional passenger services into the Capital.

### **River freight**

Sustainable use of the River Thames for carrying bulk commodities is admirable and can work well. The trans-shipment of petroleum from Canvey Island to Fulham, a distance of 65km, saves 1000 lorry movements per year. There are some opportunities in inner London where sites have both river frontage and deep-water wharves.

Many suitable sites are generally not in Council ownership and have high land values for other uses. There is also the issue of heavy vehicle attraction to sites that usually have poor access from the main road network and this, understandably, would be challenged at a local level and would present planning authorities with very difficult choices. In the inner-urban environment these very sensitive types of projects are unlikely to be promoted by the resident local authority. If there is to be any real commitment to these issues, they should be led by the GLA via the London Development Agency (LDA) in identifying and ‘safeguarding’ potential sites in its Spatial Development Strategy (SDS).



## **4.4 Actions 8-12: Measures to encourage the use of alternative transportation modes**

### **Action 8 – Measures to support a sustainable Transport Strategy for Lewisham**

- **The Council will work with TfL, Network Rail, the Strategic Rail Authority, SELTRAN and Thames Gateway London partners and others to ensure that the improvements to public transport in the Borough are delivered as soon as possible.**
- **The Council will continue to be an active partner in the Thames Gateway London and South East London Transport Strategy Partnerships.**

### **An Integrated Transport Strategy for Lewisham**

There have been a large number of important policy changes in relation to transport in the last few years, many of which were brought together in the July 1998 White Paper 'A New Deal for Transport'. This document set out a framework for a more integrated transport policy involving more travel choice, better public transport, tackling congestion and pollution.

A key objective of the sustainable approach is to ensure that local planning authorities carry out their land use policies and transport programmes in ways, which help to:

- Reduce growth in the length and number of motorised journeys
- Encourage alternative means of travel which have less environmental impact
- Reduce reliance on the private car

The main objectives of seeking to reduce traffic in London are:

- Reduction of congestion
- Improvements of public transport reliability and regularity
- Improvements of conditions for non-motorised modes

- Improvement of the business operating environment
- Improvement of air quality
- Reduction in road accidents
- Improvements in the 'quality of life'

The key elements of the Council's sustainable transport strategy are:

- To ensure that development which has the potential to generate significant volumes of traffic is located in areas with good public transport such as town centres
- To support and encourage improvements to public transport, particularly improvements which encourage people to use public transport rather than the private car
- To introduce and implement policies which favour sustainable transport modes such as walking and cycling
- To support only those road improvement schemes and traffic management measures which contribute to traffic restraint and the objectives of sustainable transport policy
- To move away from providing car parking to meet demand and towards using parking policy to implement traffic restraint policies
- To introduce car parking standards for new development which contribute to traffic restraint policies
- To distinguish between the legitimate roles of short stay visitor parking and long term commuter parking

The responsibilities for both transport policy and provision are split between a number of organisations and this means that the Council must work with the appropriate body in order to implement its transport strategy. In London this body is the Greater London Association (GLA).

The Mayor of London is required to produce a document setting out an integrated transport strategy for London, Transport for London (TfL) is responsible for the implement of the Mayor's transport strategy.

The Actions in this document address transport problems by a dual approach of significant improvements in public transport provision, other alternatives to the private car and the introduction of restraint measures. These objectives cannot be achieved by the Council alone, but will require the co-operation and participation of many partners, such as:

- Residents and workers within Lewisham
- Businesses within Lewisham
- Bus operators
- Rail operators
- Resident groups
- Cycle groups
- Pedestrian groups
- Primary Care Trust
- Freight companies and groups
- Business groups
- South East London Transport Strategy (SELTRANS)
- Thames Gateway London Partnership (TGLP)
- London Bus Priority Network (LBPN)
- London Cycling Network (LCN)
- Emergency services
- Central Government
- Greater London Authority (GLA)
- Transport for London including, London Transport, London Bus Initiative, London Underground and Docklands Light Railway
- London Councils

Lewisham is a willing partner in several pan-London transport and technical partnerships, these include: the London Councils, London Bus Priority Network (LBPN), London Bus Initiative (LBI), London Cycling Network (LCN), London nighttime and weekend lorry ban, the London Bridge Engineers Group (LoBEG) and the London Technical Advisory Group (LoTAG). These groupings share best practice and advice on transport policy.

The LBPN, LBI, LCN and LoBEG are important delivery bodies for major elements of our transport system. In recent years Lewisham has also become a partner in two multi-borough, sub-regional transport partnerships, these being, SELTRANS (South-East London Transport Strategy) and TGLP (Thames Gateway London Partnership). There is also the Crystal Palace SRB, a multi-Borough sub-regional SRB partnership, and the East London Line Group (ELLG), which was instituted to promote extensions to the East London Line. These partnerships were specifically set up as liaison groups to share information, lobby collectively and to put forward joint initiatives and bids.

Road traffic reduction, traffic management, land use, air quality, management and road safety are all inextricably linked, and with this in mind, Lewisham fully supports the principles of the Road Traffic Reduction Act 1997.

The Council's transport policies linked to the air quality action plan objectives promote alternative modes to the car as the only sustainable way of dealing

with population growth, and hence, travel growth. Lewisham will pursue local measures that it sees as contributing to traffic reduction London-wide by integrating the following initiatives :-

### **Local Reduction Initiatives**

- Continuing to support the London Bus Initiative, London Bus Priority and London Cycling Networks and introduction of our walking and cycling strategies.
- Continuing to promote and lobby for better public transport provision.
- Control and restrain the ends of car trips by better parking enforcement, introducing more parking controls via controlled parking zones and by setting revised planning standards for parking and conditions for development parking.
- Introduction of traffic and environmental cells between the strategic road networks.
- Encourage Staff Travel Plans for the Borough's own staff and for other businesses through the planning process.
- Encourage the reduction in the number of "school run" trips via the introduction of "Safer Routes to Schools" and a Road Safety Plan
- Education through our road safety programme and schemes such as "Travelwise".
- Continuing to partake in sub-regional discussion, objective setting and implementation of schemes through SELTRANS/TGLP.
- Monitor traffic and travel patterns and the effects of all of the above.

### **Congestion Charging**

The Mayor for London introduced congestion charging in the central area of London on the 17<sup>th</sup> February 2003. Lewisham supports this measure in principle and will take particular interest in patterns of movement and parking in the north of the Borough (closest to the congestion charging boundary) and will take appropriate steps to facilitate these changed patterns if necessary.

### **London Sub-Regional Partnership Policies**

Across the South East, Lewisham and neighboring local authorities have similar aims to improve bus and rail services, reduce dependence on the car and increase accessibility to jobs. This aim was reinforced as a result of a 1996 study (Buchanan) to identify transport problems in the immediate locality.

The study showed that access to jobs, services and community activities all needed an effective transport system. 26% of the capital's population lives in South East London but only 19% of the jobs are located there making 50% of the working population travel outside the area each day.

40% of households in much of the area have no access to a car. The area also has high levels of social deprivation and unemployment so many people are relatively disadvantaged in getting to jobs, shops and community facilities and therefore effective public transport networks are vital.

As a result of this work, it was recognised that the transport and economic regeneration/development issues across South East London were of such complexity that each Borough recognised the need to tackle the issues together. In addition, several government initiatives including the White Paper "A New Deal for Transport", the Mayor's Transport and Air Quality Strategy for London, Guidance on traffic reduction, traffic management and parking, air quality and road safety reinforced the need for an integrated and more strategic approach to transport and related issues across the local area.

### **South East London Transport Strategy (SELTRANS)**

In 1996, the seven London Borough Leaders and Chief Executives of Lambeth, Croydon, Bexley, Bromley, Greenwich, Southwark and Lewisham, agreed the need for joint working on key transport issues within the area

The SELTRANS vision is to work in partnership to :

- make the area's public transport networks better integrated and safer to use;
- improve accessibility for all to town centres and employment centres, bus and tram stops and railway stations;
- make a positive contribution to business and tourist activity; and
- encourage less use of cars, more walking, cycling and travel by public transport in order to reduce congestion and to improve the environment and peoples' quality of life.

SELTRANS was formally set up in 1998 as a partnership between :

- Seven local authorities
- Transport for London
- Transport operators and providers
- South London Economic Development Agency (SLEDA)
- London First
- Private sector

The SELTRANS Partnership recognises the need to make better use of South East London's rail and road networks. By providing more and better public transport and interchange facilities allied to a variety of traffic and restraint measures, it is intended to ease congestion, help economic regeneration and sustain town centres.

## SELTRANS Objectives and Approach

The overall objective of SELTRANS is to improve the quality of life of all its communities by working with our partners to improve the area's economic welfare, environment and social inclusion. The following objectives have been agreed in the light of the Mayor's Transport and other Strategies:

### SELTRANS Objectives

- A. Identify and deliver strategic projects to reduce the growth in traffic congestion
- B. Improve accessibility to stimulate regeneration and reduce exclusion
- C. Identify and facilitate public transport network improvements linking important centres of activity
- D. Support regional economic vitality by improving town centre environments
- E. Help develop safe and secure transport choices and greater responsibility in personal travel behaviour

The SELTRANS objectives are consistent with the Mayor's integrated transport policies. The following table shows how the objectives relate to the Mayor's Key Priorities (a) to (j).

MAYOR'S KEY PRIORITIES	SELTRANS OBJECTIVES
KP(a) Reduce Traffic Congestion	A
KP(b) Overcome Underground investment backlog	Not directly applicable
KP(c) Radically improve Bus services	A, C
KP(d) Better integration of Rail with other transport systems; develop "turn up and go" metro service	C
KP(e) Increasing capacity of London's transport system by major new schemes such as east London river crossings, rail, bus and tram schemes	A, C
KP(f) Improve journey time reliability for car users, whilst reducing car dependency	A, E
KP(g) Support local transport initiatives, including town centre access, walking and cycling schemes, road safety improvements and better maintenance	B, C, D, E
KP(h) Making distribution of goods and services in London more reliable, sustainable and efficient	D
KP(i) Improve accessibility of the transport system and hence support social inclusion	B
KP(j) Integration initiatives, improve Interchanges, safety and security, information and waiting areas	A, C

The SELTRANS Partnership's officer steering group meets four times a year and interfaces with boroughs' Leaders/Chairs. Three main working groups have been set up. One deals with rail issues and is chaired by Greenwich.

The second deals with jointly-funded, Interchange improvements and is chaired by the SELTRANS co-ordinating consultant. The third group, chaired by Lewisham, deals with bus and traffic management issues.

The Buchanan study reviewed current sources of planning and transport data. It identified corridors with more than 500 trips per day but where public transport has a less than 40% share. These 'gaps' in the bus and rail networks continue to be examined in association with other service reviews occasioned by such projects as Croydon Tramlink, DLR, and JLE initiatives. SELTRANS is also supportive of the Thameslink and East London Line proposals.

A key part of the SELTRANS approach is the improvement of stations and interchange arrangements for all users. Over the last two years, 30 stations have been studied. This has enabled a programme of improvements at ten stations per year working closely with all relevant parties. Key partners are the train operating companies. Significant examples of work carried out can be seen at Elephant & Castle and Abbeywood.

SELTRANS is working with the rail industry in an attempt to both enhance rail capacity on the main routes passing through its area and to promote better services over the next two to three years through initiatives such as the South London Metro. SELTRANS is also working in partnership with Tramtrack Croydon Ltd, TfL and others to improve accessibility at tram stops, develop park and ride at its Elmers End terminus and to examine possible extensions to Crystal Palace.

The Council also favours extending the DLR concept to Bromley. Similarly, SELTRANS is working with TfL's London River Services Ltd to provide better landside facilities, particularly for pedestrians, cyclists and buses. In this way more people will be encouraged to use these vital Thames services throughout the year.

The package of measures builds on most of the key priorities set out in the Mayor's Transport Strategy. It also has regard to the Spatial Development and Economic & Regeneration Strategies. The package of measures is deliverable and the cross-borough and public/private sector co-operation evident in SELTRANS, working to common policies, will assist the Mayor and Assembly in delivering an integrated transport strategy for London and thereby promoting its world city status.

SELTRANS interacts with other Transport packages, notably the London Bus Initiative, London Bus Priority and Cycle Networks. Work continues on bringing together information on other TfL-funded schemes such as Single Regeneration Bid (SRB) and how they can best mesh with SELTRANS proposals. SELTRANS is seen as an 'umbrella' package which, when linked

to other packages, adds value and levers private sector funding to help produce quality services for the travelling public. Lewisham Council fully supports the SELTRANS package approach.

### **Thames Gateway London Partnership (TGLP)**

Originally set up to champion the physical, social and economic regeneration of the Thames Gateway, Thames Gateway London Partnership (TGLP) is now the de facto sub-regional partnership for East London .

TGLP's coverage area extends east from the Square Mile on both sides of the River Thames across the City of London and the London Boroughs of Hackney, Tower Hamlets, Newham, Waltham Forest , Barking and Dagenham, Havering, Redbridge, Bexley, Greenwich and Lewisham . As well as all 12 local authorities in the Thames Gateway London area, TGLP is also supported by the area's five universities, the local Learning and Skills Council and the strategic health organisation.

Covering a large area of London to the east of the City, the partnership has been highly successful in raising the profile of the area as a place for investment including developments in transport, housing, education and health. TGLP articulates at London and national levels the opportunity which Thames Gateway presents and the pressing needs which it must address to be able to live up to its potential. TGLP operates as a public-private partnership, working closely with private sector colleagues, such as Ford and Canary Wharf Group.

Current projects focus on transport, health, the environment, skills, safety and community involvement. In addition to this work, the partnership plays an important role in promoting the area to potential investors and lobbying on behalf of its businesses and communities. This is done through Gateway to London, the area's business retention and inward investment agency.



## **River Crossings**

As its first priority the Partnership sees the construction of a package of three new river crossings in East London as essential if regeneration is to be maximised. These proposals include a heavy rail or DLR crossing at Woolwich, the multi-modal Thames Gateway Bridge between Gallions Reach and Thamesmead and the Silvertown Link between North Greenwich and Silvertown.

TGLP is keen to play a full role in the discussion over further river crossings east of the Royal Docks, including a new heavy rail crossing for combined passenger and freight traffic. It is engaging with TfL, the SRA and the Thames Gateway Strategic Partnership on this issue.

## **Highway Network**

The Partnership does not, in the main, advocate the addition of substantial new highway capacity to the strategic network. However, it does support selective enhancements in a number of instances where schemes either provide environmental relief to local town centres or residential communities or serve key development sites. Its chief concern, in this context, is to ensure the completion of the full South Thames Development Route (STDR) between Greenwich and the M25 through the dualling of Thames Road in Crayford.

Elsewhere, selective traffic restraint on the local highway network and in town centres is supported where new Highway Agency/TfL schemes have provided substantial capacity for through-traffic, as in the case of the A12-M11 and A13 enhancements.

## **Delivering Partnership Projects**

The development of best practice governing land use - transport integration is a key element of the TGLP's overall transport agenda. This features strongly in the Partnership's new Economic Strategy document and plays a key role within a number of SRB Programmes in which TGLP is involved. The TGLP Transport Strategy identifies a range of future initiatives which the Partnership and member Boroughs can initiate and achieve directly, for example through their Interim Local Implementation Plans/Borough Spending Plans and parallel frameworks.

Specific proposals include :-

- Supporting Transport for London in progressing the East London Transit and Waterfront Transit Intermediate Mode networks, linking key development sites and town centres, as well as assisting Kent County Council in the development of the Fastrack proposals for Kent Thameside
- The development of a sub-regional Quality Bus network, featuring not only enforced bus priority, but also accessible, low-emission vehicles, improved passenger waiting and information facilities and focused marketing. Such a network is now being delivered through the London Bus Initiative
- Progressing a programme of major and minor interchange improvements in association with TfL, London Underground and train operators
- Improving the quality and coverage of public transport information, both before and during the trip in liaison with public transport providers
- Supporting selectively, demonstration projects to promote walking and cycling, for example in accessing interchanges or development sites and through the delivery of strategic routes across Borough boundaries
- Re-allocation of highway capacity away from the private car in order to provide priority for other modes and discourage non-local traffic from using inappropriate routes through town centres and residential neighbourhoods
- Greater consistency of parking controls across the Gateway area, with a particular strengthening of restrictions in outer London, and beyond the Greater London boundary
- Initiating a dialogue, particularly with the private sector, in developing a common approach to travel awareness campaigning and the take-up of Travel Plans by major employers, schools and other travel generating sites
- Transport and access improvements in support of SRB and Objective II programmes, for example in relation to Heart of Thames Gateway Community Safety Dimension, and Lewisham Urban Renaissance initiatives

## **Action 9 – Measures to encourage and promote the use of Travel plans**

- **The Council will publish and implement fully the findings of the Lewisham Staff Travel Survey.**
- **The Council will actively promote the concept of STP to organisations and businesses within Lewisham**
- **The Council will encourage the production of Green Travel Plans for the major employers within Lewisham including Lewisham Primary Care Trust (PCT), with particular reference to Lewisham Hospital**
- **The Council will encourage Green Travel Plans (GTP) from developers at the planning stage where the development is likely to have an environmental impact**
- **The Council will encourage School Travel Plans**

Lewisham Council is the largest employer in the Borough and consequently by encouraging its staff to use more sustainable modes of transport will reduce traffic congestion and pollution for the benefit of all.

The Council introduced its first Staff Travel Plan in 1999. Since then considerable work has been done to encourage staff to choose a more sustainable mode of transport and has led to the adoption of the Staff Travel Strategy in 2006. The Strategy was short-listed for the London Transport Awards 2006. The Staff Travel Strategy is reviewed on a bi-annual basis and the Staff Travel Group monitors the progress on its policies, targets and proposals.

Preliminary results of the Staff Travel Survey conducted in June 2005, show that the percentage of Lewisham staff driving alone to work has reduced from 51% in 2003 to 39% in 2005. This is a considerable decrease and will have a significant impact in terms of improving the environment and congestion around the Borough, and the health and well being of our workforce.

**What is a Staff Travel Strategy?**

The Mayor of Lewisham is committed to controlling pollution levels and reducing congestion in order to improve health and quality of life for staff, residents and visitors to the Borough.

The Staff Travel Strategy contains a five year programme of policies, measures and initiatives to encourage staff to use sustainable transport, walking or cycling rather than using the car, and thereby help deliver cleaner air and promote a healthier lifestyle.

**Who does it affect?**

The scope of this Strategy covers all Council employees at all of its sites (teaching staff may be included in individual school travel plans). As we develop measures within the action plans we will initially prioritise those sites with a large density of staff in areas with good public transport.

**Roles and Responsibilities**

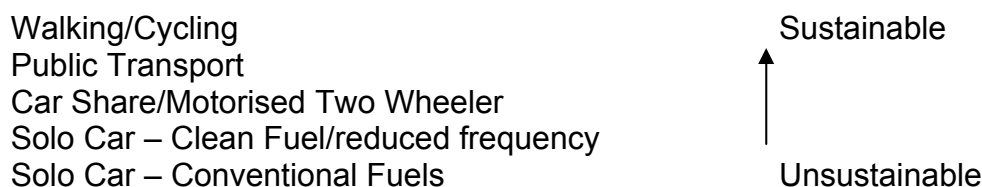
All staff will be responsible for contributing to the impact of the Staff Travel Strategy by considering how they travel to and from work, and journeys connected with their job.

Managers and Team Leaders will be responsible for disseminating information to staff regarding Strategy updates and policy implementation. The Staff Travel Group will be responsible for the direction, development, implementation and promotion of the Strategy.

Lewisham Council employs a permanent member of staff to work with Council employees and organisations in the borough to encourage and promote Travel Plans. This is carried out in partnership with SELTrans and TFL.

**AIMS AND OBJECTIVES:**

The overall aim of this Strategy is to help Lewisham staff make informed decisions about using sustainable transport when travelling to work.



This directly links to one of Lewisham's Local Key Performance Indicators in the Corporate performance plan: "percentage of staff who use their car to travel to work". The figure was 49.9% in 2003/04 and Corporate targets have

been set as 46% in 2005/06 and 45% in 2006/07. The good news is that these have already been exceeded.

The Strategy will work towards increasing walking and cycling for journeys to and from work, or part of the journey e.g. to the train station or bus stop. In addition for business purposes between easily walkable sites e.g. Catford complex and Wearside Service Centre. For longer distances the Strategy will work towards increasing the use of public transport.

Public transport is more fuel-efficient and produces less harmful emissions than other forms of motorised transport. Encouraging more Council staff to use public transport will reduce congestion, ease pressure on parking space and improve air quality.

The Council aims to reduce the need to travel through the use of flexible working practices; improved scheduling of meetings; and better use of electronic communications and internet based services.

The Strategy will be used as an example of good practice to local employers and the community demonstrating the Council's commitment to promoting sustainable transport.

The Council will be able to access funding from external sources e.g. Department of Transport, Transport for London to implement the Strategy.

## **TARGETS AND TIMESCALES**

The following programme forms the basis of work scheduled to be carried out by the Workplace Travel Coordinator during the duration of the Strategy. As other issues and projects arise they will be incorporated into the workplan:

- Promote and publicise season ticket loans to staff currently 36 increase to 50
- Promote and publicise cycle loans to employees currently 5 increase to 20
- Install cycle stand parking and shelter for 16 bicycles at Wearside
- Refurbish old cycle parking shelter for motorbikes
- Install hard standing and parking for motorbikes at Laurence House
- Review staff parking permit charge and procedures
- Introduce policy to guarantee transport home for registered car sharers in cases when arrangements breakdown unexpectedly.
- Pilot pool bike scheme in one department in Laurence House
- Instigate programme to introduce parking permits to other Council sites where on-site parking is available.
- Promote car sharing currently 12% to 20%
- Provide cycle training for staff

- Review level of cycle allowance payment
- Improve shower/locker facilities in Wearside
- Increase locker facilities in Catford Complex
- Increase by 10% number of staff travelling by more sustainable modes of transport by organising walking/cycling events and training e.g. safer travel at night.
- Provide and advertise Personalised Travel Plan Service with WTC
- Prepare material for induction pack and advertise personalised travel planning service available from WTC.
- Review allocation of parking permits to staff if parking space reduced
- Roll-out pool bike scheme to other departments/locations
- Increase staff parking permit charge to be in line with business permit charge
- Install system whereby staff can be reimbursed parking permit charge for days they do not use their car
- Produce and distribute to all staff handbook of travel information and maps
- Abolish payment of travel expenses between walkable sites i.e. Wearside and Catford which will provide a saving to the Council.
- Introduce system for staff to use corporate travelcards/oystercards for business use thereby reducing payments paid in car allowance

**Achievements to date**

- Conducted three staff travel surveys 1997, 2003 and 2005 providing benchmark data
- Introduced parking charges for staff at the Catford complex and Wearside Service Centre which are ring-fenced for staff travel improvements
- Abolished car leasing scheme
- Abolished car purchase loan scheme
- The Council has offered season ticket loans since 1993
- Introduced bicycle loans for commuting or for use during work
- Introduced employee cycle allowance
- Implementation of extensive secure cycle parking in Laurence House including swipe card entry
- Installed locker facilities for cyclists in Laurence House
- Purchased a fleet of pool bikes for the Lewisham and Catford Street Wardens
- Development of a Staff Travel Group chaired by the Head of Transport (Head of Personnel and Development also attends)
- Removal of essential car user allowances for new employees
- Creation of a Staff Travel Post filled in December 2004 and funded by ring fenced income from car parking charges
- Programme of awareness raising events

**Where are we now?*****Walking***

A core number of staff already walk to work (12%) however the 2005 Staff Travel Survey showed that 23% of all staff lived less than four miles from work but still used the car as their main mode of transport. This Strategy aims to provide a flexible framework to increase walking to and from work and during the course of the working day.

***Cycling***

Cycling is an excellent form of exercise which can improve staff health and fitness. It is a viable alternative to driving both for commuting and travelling on Council business. Staff are entitled to one interest free loan to purchase a bicycle for personal use to either commute to work and/or to travel on official Council business. A cycle allowance is currently paid to employees who are authorised to use their bicycles on official business. The level of this allowance will be reviewed.

In Laurence House basement secure parking is provided for 76 cycles. Shower facilities are available at the Catford Complex and Wearside. A new shelter has been erected at Wearside which provides covered parking for 16 cycles.

***Pool Bikes***

A pool bike scheme provides bicycles that have been purchased by the Council for use by employees who need to travel to carry out their business. The bikes are kept in a secure parking area when not being used. Employees wishing to be included in the scheme must attend cycle training with Road Safety Department. A pilot scheme is to be trialled by one department in Laurence House which will be evaluated and assessed in October 2006. If successful the scheme will be extended to other departments across the Council.

***Motorcycles/powered two wheelers***

Motorcycle use is broadly equivalent to car sharing in sustainable transport hierarchies. Motorcycle user allowance can be claimed at the same rate as casual car user i.e. one rate up to 999cc engine size and another for 1000cc and above. Plans are underway to install covered motorcycle parking for 20 bikes in the Laurence House Car Park. At Wearside the old cycle shelter will be refurbished for motorcycle parking. Shower and changing facilities are available to both cyclists and motorcyclists.

***Public Transport***

Interest free loans are available to staff for annual season tickets or travelcards for use on public transport. Saver bus tickets can be purchased reducing the cost to the Authority claimed through travel expenses.

**Cars**

Staff parking permit schemes are in operation at Catford complex and Wearside centre whereby current permit-holders only can purchase a permit to park in a staff carpark. The scheme will be extended to other Council sites. Staff working at those sites can apply for a permit and allocation will be made against the Council's agreed criteria i.e. disabled staff, car sharers, carers, etc. The Strategy will aim to reduce the number of car parking spaces offered to staff.

The cost to current permit holders is £100 per annum at present and the fee will increase on 1st October 2006 to £200, with a further increase on 1st October 2007 to £300 per annum. This will be in line with market value, currently £300 per space. Staff will be offered 2 payment options:

Option 1: Available only to staff who currently hold a staff parking permit. An annual parking permit charged at the staff parking rate. These sums will continue to be deducted from salaries on a monthly basis. This will hopefully encourage staff to consider alternatives.

Option 2: Available only to staff who currently hold a permit. To purchase a 100 day parking permit at a cost of £100. The parking permit for 100 working days will be an alternative to the full rate business permit and staff with existing permits will be able to purchase a £100 permit for 100 working days. This is to encourage staff to use alternative modes of transport e.g. walking, cycling, car sharing or public transport, who do not necessarily need to use their car everyday. For those staff who have already purchased an annual season ticket using a Lewisham season ticket loan and therefore committed themselves to public transport it could be issued for any one of the staff car parks, since there would be no need to monitor usage. For those staff who have not purchased an annual season ticket it would only be available for use at Holbeach and Wearside staff car park, where the fob system allows monitoring of entry and exit.

Staff wanting to use their car more than 100 days in a year would need to purchase an annual permit charged at the business rate currently £300 per annum. This is the cost of maintaining a parking space. The Unions requested consideration be given to a £200 permit for 200 days parking. The average number of days worked by individuals commuting five days per week is 227 days. A permit for 200 days would therefore cover a whole year which would result in the Council subsidising permit holders to park. It would not be an incentive to encourage a modal shift.

The cost of a parking permit is a flat rate and not linked to any salary, grade or number of working hours. Staff who are employed on a term-time only contract can purchase a permit on a pro rata rate of £170 from 1st October



2006 and £250 from 1st October 2007. This permit will not allow parking during school holidays for which alternative arrangements must be made if an occasion arises that parking is required.

The income from the permits is ring-fenced to fund the Workplace Travel Coordinator post. It will also meet the costs of measures outlined in the Strategy e.g. cycle stands, training, advice.

The criteria for entitlement to Essential Car User allowances was redefined with effect from 1st October 2003 and the number of posts eligible was reduced. The status is no longer offered for new employees. Casual user allowance may be claimed by employees using their car in connection with their work. There are two rates of mileage allowance; one for cars up to 999cc engine size and another for 1000cc and above.

### ***Car sharing***

Currently only 5% of staff carshare on their journey to work.

### ***Pool Cars***

A pool car is a vehicle which has been leased or purchased by the authority and is available to be used by employees to carry out the Council's business when there is a necessity e.g. to transport equipment. A pool car can be financed by one department and only used by employees within that section or shared by a number of departments and the costs recharged pro rata to the amount of use by each section. A shared vehicle would suit a small section or one where there is in frequent use of a vehicle required.

A pool car would ensure that staff are using a vehicle which is maintained to a high standard; has appropriate legal documentation, is covered by insurance to carry goods; staff have passed the Council's own driving test. The car is pre-booked by authorised employees and a cost centre code given if the vehicle is used by more than one department or team.

These cars must be fuel efficient and use less polluting energy sources. Low or zero emission models such as electric and LPG are significantly less polluting than ordinary diesel.

### ***Flexible Working***

Allowing more flexible working hours would provide the opportunity for people to travel at less busy times of day, easing traffic congestion. A flexi-time scheme is already operating widely throughout the Council.

### ***Teleworking/Homeworking***

The Council's teleworking or homeworking scheme permits certain employees to work for either part or most of their working time from home. Working from home one day a week would reduce travel to work by 20%.

***Accommodation***

All new Council buildings should ideally be provided in locations that are well served by public transport, have a robust Travel Plan and meet the Council's car parking standards as defined in the Unitary Development Plan. They should also be equipped with showers, changing rooms, lockers, indoor and outdoor cycle parking. As for buildings undergoing refurbishment every effort must be made to provide facilities to encourage staff to use sustainable transport. They must also comply with the Disability Discrimination Act in providing appropriate access for disabled people, including improved accessibility to and from the nearest public transport provision.

***Information/Journey Planning***

A personalised journey planning service will be available to staff considering making changes to more sustainable travel modes. Individuals can have one-to-one assistance to investigate their travel choices with the Workplace Travel Coordinator including access to maps; routes, fares and ticketing information.

***Fleet Vehicles***

The Council is committed to delivering a programme of vehicle replacement with fuel-efficient, low or zero emission models. The Council is also participating in SELTrans BISTRO (Bio-diesel Initiative for Sustainable Transport from Recycled Oil) project.

***New Recruits***

The Staff Travel Strategy will provide information to be included in the induction booklet and induction course for new starters giving details of public transport, walking and cycling facilities, a location map and details of how to access financial incentives and training.

**SCHOOL TRAVEL PLANS**

Action is required to change travel behaviour, to help tackle the increased car use for the journey to school, and the associated problems that cause and accompany this increased car dependency.

Changes in the school journey result from many factors including:  
children attending non-local schools

- more school books and equipment to carry
- time pressures on parents, often as a result of an increase in the number of parents who both work
- increased car ownership
- increased fears about traffic accidents
- increased fears of personal safety, including bullying and abduction
- children's preferences / habits

## Aims and objectives

The general aims of a School Travel Plan (STP) are to reduce the use of cars for the journey to school (hence reducing congestion) whilst increasing safety around schools. The latter is in large part to be achieved via the proposed STP - implementation and 20mph Zones programmes the Council seeks to introduce in a linked/coordinated manner. The reduction in car travel is to be delivered largely via the actions agreed by the school and set out in its Travel Plan, but supported by the creation of the Safer Routes. The Council aims to link Travel Plan and Safer Route development, consultation on the Plan helping to shape the School Travel Plan implementation proposals.

The objectives of the School Travel Plan and associated engineering measures (as part of the 'Area Approach') are:

- reduce the use of the car for the journey to school
- encourage more people to walk and cycle to school safely
- healthier lifestyles and physical fitness (by promoting the health and social benefits associated with walking & cycling)
- raise travel awareness in particular amongst transition pupils (year 6 pupils preparing to start secondary school)
- fewer child casualties and road accidents
- safer roads for all – especially pedestrians and cyclists
- reduced pollution and congestion
- greater independence and freedom for children
- acquisition of life skills and formation of healthy patterns of activity

## Structure

TfL has made clear the expected nature of School Travel Plans, stating that BSP funding '... will only be available for schemes which meet the DfT/DfES definition below' TfL states that an '... effective STP puts forward a package of measures to improve safety and reduce car use, backed by a partnership involving the school, borough education and transport officers, the police and the health authority'

There are elements that every STP must contain. It must be a written document and include:

- A brief description of the location, size and type of school
- A brief transport / traffic assessment of the school / cluster of schools. This should include pupils' travel needs: journeys to and from school at normal hours and for pre and post school activities and any journeys made during the school day to attend activities at other locations.
- The results of a survey to identify
  - a) How children and staff currently travel to / from school
  - b) How children and staff would like to travel to / from school

- Clearly defined targets and objectives (these do not have to be solely modal shift targets)
- Details of proposed measures to address issues raised in the surveys
- A detailed timetable for implementation including costing, monitoring and review
- Clearly defined responsibilities for delivering the plan
- Evidence that relevant partners have been consulted

### **Routes to Delivering School Travel Plans**

There are two routes by which the Council seeks to deliver School Travel Plans and the changes in travel behaviour they are intended to achieve. The first is through a process of facilitation and encouragement, the Council's School Travel Plan Officer working with individual schools to encourage, advise and support them in their own development of Plans. This Strategy deals primarily with this approach to development. The second route is via the planning/development control process, which has been previously mentioned in the local policy section.

### **Progress to date and targets**

The national targets for School Travel Plans are as follows:

100% of schools to have a STP in place by 2009

100% of schools to be engaged in the STP process by 2008

40% of schools to have an STP in place by March 2006

Lewisham has been successfully working towards these targets, achieving 51% of all Lewisham Schools having an approved STP. The table below shows progress.

**Table 4.3 STPs in Lewisham**

	2004/05	2005/06	2006/07	2007/08 Projected	2008/09 Projected
Approved STPs	16	24	7	21	24
LBL Schools with approved STP	17%	43%	51%	74%	100%

## **Associated Measures**

### **Planning**

The measures laid down in the UDP are as follows:-

#### **TRN 5 – Green Travel Plans**

*The Council will encourage business and organisations that either employ or attract a large number of visitors to draw up Green Travel Plans. In appropriate circumstances a S106 obligation may be sought on this matter.*

The aim of the Green Travel Plan is to get organisations that submit a planning application where large numbers of staff are proposed to consider how, the travel needs of their staff will be managed. The primary aim is to reduce car use and encourage more environmentally friendly travel for work journeys. The plan should also cover fleet cars.

The implementation of a cohesive Travel Plan can be of commercial value to business in that they may allow a more profitable use of dedicated car-parking space and could reduce the company parking and tax bill.

A Section 106 agreement, where money is provided by the applicant to support alternative transportation methods, may be the best way to ensure implementation of such a scheme by developers, especially for large multi-use applications.

Further details about Green Travel Plans and their use associated with schools can be found in Action 14.

### **Transport and Streets: Local Implementation Plan (LIP).**

Lewisham Council developed its first Travel Plan in 1999. As the largest employer in the Borough it has an important role in setting an examples to other organisations of the need to reduce their employees reliance on cars to travel to and from work. Lewisham has moved forward considerably since 1999 with the abolition car leasing, the introduction of staff parking charges at its Catford and Wearside sites and the funding of a dedicated Workplace Travel Co-ordinator.

The Council is currently updating and developing its Travel Plan and is embarking on ambitious programme of site-specific travel improvements funded by ring fenced income created by parking charges. The Council is also embarking on an innovative flexible working programme called Worksmart, with 10 pathfinder (pilot) projects being initiated across the council in 2005.

### **Other Organisations and Developments**

University Hospital London and Goldsmiths College have also developed travel plans. The workplace travel co-ordinator will work with these organisations to build on their plans and help identify future sources of funding for on-site improvements. Lewisham will continue to require travel plans for major commercial developments as they occur in the borough.

However, as the borough is highly residential in its nature we have identified a need to require Travel Plans in residential developments over a certain number of units. Best practice already exists in the borough at One SE8 (Deals Gateway) where there is a residential Car Share Scheme (Urbigo.com) and 20 Pool bikes available to residents together with secure cycle parking for private bicycles and good access to the Docklands Light Railway. We will be looking to encourage further plans of this nature via the planning process and will develop guidance for developers through the Local Development Framework (see also Council's response to MTS Proposal 4H.Pr3).

### **Travel Awareness**

Good Going in Lewisham: The Council has signed up to the pan London Good Going Campaign, this will release funding for Travel Awareness from Transport for London (via the Local Implementation Plan). Lewisham Council have also allocated funding for the salary and on costs of the workplace travel co-ordinator who will be responsible:

- Develop a Good Going in Lewisham partnership of transport operators, local interest groups, large employers and major trip generators together with regional organisations such as SELTRANS and TGLP.
- Produce and distribute a quarterly Good Going in Lewisham newsletter in hard copy and email
- Organise a programme of events under the Good Going in Lewisham banner (including: Local Neighbourhood events, Lewisham Walking Festival, SE London Green Chain Walking Festival; Walk to School Week; Green Transport Week, Bike Week, European Mobility Week, Car Free Day, Safer Travel at Night and Don't Choke London.)
- Participate in other relevant events across the borough (e.g. Lewisham Peoples Day)

The Good Going in Lewisham Partnership: It is anticipated that the partnership will involve transport operators, local interest groups, large employers and major trip generators. All partners will be invited to sign up to the Good Going Campaign and promote it to their employees and visitors. The co-ordinator will organise two partnership meetings per year to discuss newsletter, events and promotions and develop an integrated approach. Potential partners could be:

- Lewisham Primary Care Trust
- University Hospital Lewisham

- Lewisham Walking Forum
- Lewisham Cyclists
- Transport for London
- Docklands Light Railway
- South East Trains
- SELTRANS/TGLP
- South East London Groundwork
- Goldsmiths College
- Lewisham College
- Lewisham Shopping Centre
- Millwall FC

The Good Going Campaign will be delivered on an annual cycle in line with the LIP Funding allocation from Transport for London, at the beginning of each annual cycle an action plan will be produce outline proposals and timescales for the coming year.

### **Individualised Travel Marketing**

Lewisham will continue to seek funding for an individualised Travel Marketing campaign aimed at residents in five neighbourhood management areas where accessibility to public transport has been identified as priority concerns. Additionally we will look to develop and individualised travel marketing programme for Lewisham Council employees and teachers if the funding can be found.

### **Sub-Regional Working**

Both the TGLP and SELTRANS partnerships employ sub-regional co-ordinators with a remit to promote the wider take-up of travel plans on a voluntary basis or through the planning process. The TGLP co-ordinators' current focus is on active assistance to Hackney, Tower Hamlets and Newham, however this also includes initiatives at the sub-regional level as well as joint working with SELTRANS travel co-ordinators.

*LIP Programme 4P.1 Integration Subject to available funding, the Council proposes to continue:*

- *its own programme of Travel Planning and Travel Awareness campaigning;*
- *to work with similar programmes at the sub-regional level.*

## **Action 10 – Measures to promote and publicise improvements to public transport**

**The Council will actively promote improvements to public transport in terms of quality, reliability, accessibility and level of service. In particular:**

- **DLR**
- **Thameslink 2000**
- **East London Line**
- **Tramlink**
- **Upgrading of the underground system**
- **The London bus network**

Lewisham is generally well served by public transport and much of the area has comprehensive bus, rail and Docklands Light Railway services. Public transport is ideal for many commuting journeys and also for Council business. The provision of bus lanes and bus priority schemes is helping to prevent buses being delayed by traffic congestion. Annex 1 details all the local transport links across the Borough.

In south and south-east London train services are vital to local residents, particularly those parts of the Borough where car ownership is very low, such as Bellingham and Catford. There are limited tube services and the frequency of service is poor compared to other equivalent parts of outer London.

Lewisham is criss-crossed by railway lines and has twenty stations. About 60% of the economically active population commutes out of the Borough to their place of work, the majority in the central London area. Good public transport, including rail services, are therefore very important to Borough residents. New rail schemes, which help the economic position activities, are therefore welcome.

The heavily used rail lines generally provide a good service to and from Central London in the peak hours. However, there is concern about the frequency of services from Lewisham (reverse commuting) to other localities in the south east region. The Council is also concerned that these lines are not used to their full potential for short-distance travellers, who are penalised by the fare structure, and for local journeys at off-peak times.



This is why the Council has a clear vision to increase the use of local transport by the introduction of further choices and options for residents.

## **New Rail Schemes**

The Council supports, in principle, all rail improvement schemes subject to a clear balance of advantage to Lewisham residents and on the basis that the details show an acceptable impact on the local environment.

### **Development of rail projects**

The Jubilee Line Extension (JLE) has greatly enhanced travel options for the people of Lewisham. The DLR has an interchange with the JLE at Canary Wharf and the ELL has an excellent interchange with JLE at Canada Water.

The Lewisham DLR extension was opened at the end of November 1999 and has brought the following substantial benefits:

- Direct cross-river access to the City, Docklands and Stratford for South East London and Kent residents and commuters. This will bring about 500,000 more people within 45 minutes traveling time of the Isle of Dogs.
- Better access to retail, tourism and heritage activities in Lewisham and Greenwich.
- Journey time savings for Lewisham and Greenwich residents and commuters, creating new employment prospects and travel opportunities.
- Regeneration opportunities at Greenwich Waterfront, Deptford and Lewisham Town Centre.
- Important new journey opportunities from the south east with Lewisham transport interchange and the Jubilee Line interchange at Canary Wharf only 15 minutes apart.

The Council supports in principle enhancements to the system, particularly improved access to London City Airport.

## **Tramlink Extension**

The Croydon Tramlink opened in May 2000 and provides a significant enhancement to the network in south London. The Council supports the principal of the extension of the Croydon Tramlink to Lewisham. The benefits could include an attractive alternative to the private car, making more effective use of limited road space, improving access to town centres, creating regeneration opportunities and strengthening orbital public transport links. However, the costs and benefits and the most appropriate route remains to be examined. Further work on the feasibility of this extension will be undertaken during the lifetime of this Plan.

## **South London Metro (SLM) service enhancements**

Three principal train operating companies, Connex, Thameslink and South West Trains have agreed the South London Overground (or Metro) concept put forward by the London Regional Passengers Committee (LRPC) (now the London Transport Users Committee (LTUC)). Essentially, the concept seeks to increase train service frequency to at least 6 trains per hour in Travelcard Zones 1 to 4 and 4 trains per hour in Zones 5 and 6. Borough-led partnerships SELTRANS (South East London Transport Strategy) and SWELTRAC (South and West London Transport Conference) were encouraged to develop a brief for a more detailed study.

In March 2000, a South London Metro Steering Group was established and a technical study was carried out to see how practical it was to extend more metro-style services in South London, over what period and to gauge the economic and other benefits arising from such a system.

The study looked for early 'wins' over a three year timescale and for longer term improvements over the next ten years to 2010.

Despite known problems of no spare capacity at peak hours, four types of short-term initiatives were supported: -

- Service improvements: frequencies and service structures.
- Better, user-friendly stations, giving consistently higher standards to meet today's passengers' needs at nearly 200 stations in South London.
- Better marketing and information of what services are available.
- Simplified fares and ticketing.

The full aspirations for the South London Metro will only be met after major investment.

The extension of the East London Line, over the next ten years will enhance the rail network's capacity and support more metro-style services.

There are clear timesavings to rail passengers and non-rail passengers (road users) as well as residents and businesses across South London. Passenger levels could increase by between 7 and 31 percent above the current level of 42 million off-peak rail trips per year, with corresponding reductions in road traffic.

There is widespread support for the principle of improved metro-style services. Although there are difficulties to overcome, the SLM Steering Group will continue to meet and develop in more detail the four initiatives outlined above. The South London Metro project provides a complementary rail based policy to that of the London Bus Priority Network (LBPN) and London Bus Initiative (LBI).

Both the rail and bus initiatives are aimed at easing London's traffic and transport congestion problems. With the full support of the Boroughs in the SELTRANS partnership, it is hoped to influence both the GLA and the Mayor so that the necessary backing for the South London Metro is established in terms of the emerging Transport Strategy for London, in terms of the current re-franchising process, and in terms of funding.

## **Associated Measures**

### **Planning**

The measures laid down in the UDP are as follows:-

#### **TRN 11 - New Rail Schemes**

*The Council supports in principle all rail improvement schemes, subject to a clear balance of advantage to Lewisham residents and that the details show an acceptable impact on the local environment. In particular the Council supports:*

- *East London Line Project*
- *Thameslink 2000*
- *Extension of DLR to London City Airport*
- *Train orbital routes*
- *Extension of the Croydon Tramlink to Lewisham*

60% of the economically active population commutes out of the Borough to their place of work. Good public transport including rail services, is therefore

very important to Borough residents. New rail schemes, which help the economic position of Borough residents and improve access for leisure and other reasons are therefore welcome.

However, there are often local environmental effects from major infrastructure projects and the Council will safeguard its position on development until detailed proposals are fully known. The Council supports the investigation, and, if feasible, implementation of new interchange facilities with existing rail links.

### **Transportation and Streets: Local Implementation Plan (LIP)**

*LIP Measure 4D.1 Docklands Light Railway The Council proposes pursuing the Deptford Links and Lewisham Gateway proposals as key means of improving the accessibility of the Borough's DLR stations.*

*LIP Policy 4D.2 Croydon Tramlink The Council will support the principle of extending Tramlink to Crystal Palace.*

*LIP Measure 4E.4 National Rail: Accessibility The Council (subject to available funding) proposes:*

- *pursuing with its partners major access improvements at a number of stations including:*
  - *Lewisham*
  - *Deptford*
- *exploring with TfL, LDA, SRA and others, options for making stations along the East London Line Extension accessible to people with disabilities and;*
- *generally seek to improve the accessibility of routes to stations.*

*LIP Policy 4F.1 A Better Bus Network: Bus Contracts and Performance The Council will seek to protect and encourage the enhancement of existing bus stations, garages and termini.*

*LIP Policy 4F.2 A Better Bus Network: Bus Contracts and Performance In order to support efficient and effective bus operation, The Council proposes working with TfL to deliver adequate and appropriate bus standing capacity at agreed locations, whilst balancing the need of bus operators with those of other street users and minimising the need for on-street standing.*

*LIP Policy 4F.3 A Better Bus Network: Bus Contracts and Performance The Council will encourage TfL to provide adequate basic services for bus drivers at bus stands and proposes working with TfL to investigate how these can be provided.*

*LIP Programme 4F.1 A Better Bus Network: Getting buses moving The Council proposes introducing and maintaining bus stop clearways as part of its LIP funded programme of bus stop accessibility improvements.*

*LIP Policy 4F.4 A Better Bus Network: The London Bus Initiative When intervening in the street, the Council proposes seeking to mitigate or otherwise compensate for any significant impacts on buses on major bus corridors. Each case will be considered on its individual merits and the relative balance of needs.*

*LIP Scheme 4F.3 A Better Bus Network: The waiting environment The Council proposes undertaking a programme of bus stop accessibility improvements over the period of this LIP based on the level of funding for the programme provided by TfL and shaped by priorities set through guidance issued by TfL and by issues raised by other stakeholders.*

## Action 11 – Promotion of Walking

- **The Council will develop and publish the Local Walking Strategy for Lewisham**
- **The Council will encourage Council staff to walk to work and to walk on Council business, where appropriate.**

The Council's actions to improve conditions for pedestrians are guided by both its own 'Local Walking Strategy' and the London Mayor's 'Walking Plan for London'. Both highlight and emphasise the 5 'Cs' to Walkability. The London Mayor's Walking Plan provides the following definition: 'Aspects which make a city walkable are as follows:

### **Connected**

The extent to which the walking network is connected to key 'attractors' like public transport interchanges, homes, places of work and leisure destinations in addition to the degree that the routes themselves connect. To Londoners this will mean a marked improvement to the logic and coherence of the walking network e.g. walking routes which get them from A to B safely, easily and via the most direct route.

### **Convivial**

The extent to which walking is a pleasant activity in terms of interaction with people and the built and natural environment, including other road users. To Londoners this will mean a significant reduction in litter, graffiti and other problems which reduce the quality of the walking environment and prevent the creation of high quality public spaces that make being 'out and about' a pleasurable activity.

### **Conspicuous**

The extent to which walking routes and public spaces are safe and inviting, with attention paid to lighting, visibility and surveillance. This also includes the availability of mapping and signage. To Londoners this will mean safer streets where people feel secure at all times of the day through increased natural surveillance and other measures such as street lighting to increase security.

### **Comfortable**

The extent to which walking is made more enjoyable through high quality pavement surfaces, attractive landscaping and architecture, the efficient allocation of road space and control of traffic.

To Londoners this will mean well-maintained footpaths and the provision of seating, landscaping and public toilets, which make the public realm a more comfortable place to be.

### **Convenient**

The extent to which walking is able to compete with other modes in terms of efficiency through the implementation of the above factors. To Londoners this will mean the creation of walking routes and environments, which compete with other less sustainable options for short trips through increased journey ambience and greater pedestrian priority. These will help to make walking a more convenient and attractive mode of travel.'

### **LIP Programmes and Proposals**

Via his guidance on the preparation of LIPs, the London Mayor requires Councils to

*'... include programmes and plans for infrastructure improvements and promotional activities to deliver better conditions for pedestrians'*. Setting out 'programmes' for 'pedestrian infrastructure' improvement, is however simultaneously challenging and limiting. The Council is working across a very broad front to improve conditions for pedestrians as demonstrated by the large number of LIP programmes that are likely to have a positive impact on pedestrian movement and safety. Likewise the Council's actions to promote walking also cover a broad spectrum.

Of the various LIP programmes set out in the 54 Proposal Delivery Forms in the Finance and Resource Statement accompanying the LIP, over 30 are likely to have a positive impact on pedestrians. The most important of these are:

- 20mph Zones
- Local Safety
- Reductions in accidents/casualties and improvements to road safety will support increases in walking.
- Road Safety, education and publicity aimed at improving road safety and encouraging increases in walking.
- Safer Routes to School
- Bus Stop Accessibility
- Town Centre Improvements

The Council works closely with the Primary Care Trust and 'Lewisham Healthy Walks' to promote walking as part of more active and healthier lifestyles. The London Mayor himself highlights within the London Walking Plan, the Lewisham Walking Forum and the Council's work with it to run the annual two week 'Walking Festival'.

### **Travel Awareness & Workplace Travel Plans**

The Council is facilitating within its own organisation, and working with other employers in the Borough, to promote walking as an alternative to the car for the journey to work or trips during work. The Council also organises or participates within a number of other walking promotion activities throughout the year under the London wide 'Good Going' banner:

- Local Area Accessibility: Small-scale accessibility improvements to encourage walking and support social inclusion.
- Non-Principal Roads: effective footway maintenance is an important component in improving pedestrian infrastructure.
- Street Lighting: improved and better-maintained street lighting will encourage walking.
- School Crossing Patrols: a total of 59 patrols are provided by Lewisham at primary/first schools in the borough.
- Kerbcraft: aimed at discouraging car use for the school run and encouraging increases in walking to school.
- School Travel Plans: the Council is working in schools, with pupils, teachers, parents and carers to develop Travel Plans, investigate and overcome barriers to walking to school and otherwise promote the social and environmental and health benefits of walking.

### **Other Policies and Programmes**

In addition to the wide range of LIP programmes referred to above, much of the Council's action through:

- its regeneration programmes;
- the planning system; and
- green space management and improvement programmes;

is also intended to bring about improvements for pedestrians.

For example, the Urban Renaissance in Lewisham SRB and associated Lewisham Gateway development proposals outlined at Chapter 3 of this LIP, are intended to much more strongly connect the bus/DLR/rail station with the commercial centre. The development proposals would also greatly improve the Waterlink Way strategic walking route as it passes to and through the centre, making walking to the centre and interchange more comfortable, convenient, convivial and conspicuous. A key aim for the linked SRB programme and development proposal is to make walking more convivial via the creation of new spaces and improvements to others; reducing the segregation effects and other impacts arising from motor traffic and extending the commercial heart of Lewisham closer to the public transport interchange.

The Council has developed (and in some cases adopted as supplementary planning guidance) urban design and development frameworks for town centres, which set out the public realm improvements that development might facilitate and contribute towards. Through the planning system, the Council both seeks to identify and take opportunities to create new pedestrian links or



make improvements to the alignment of existing links. Similarly the Council seeks to optimise natural surveillance by encouraging active frontages in new development wherever appropriate. Developers frequently contribute to lighting and signing improvements on links to their developments.

**LIP Policy 4I.1 Promoting Walking** *The Council will look to build on and strengthen within its Local Development Framework, the approach to improving conditions for pedestrians, currently adopted within its Unitary Development Plan.*

The Council provides a Street and Neighbourhood Warden Service in seven areas of the Borough. These Wardens, which part of the 'extended police family', but without the police powers of arrest. The Council also operates a network of CCTV cameras from its central control room covering certain car parks and streets. The Council also provides both an abandoned vehicle removal service and a graffiti removal. The aim is to keep streets ensure that streets remain convivial places, places that are respected, and places that do not engender safety and security concerns.

Likewise the Council's actions to promote walking cover a broad spectrum. The Council is working in schools, with pupils, teachers, parents and carers to develop School Travel Plans, investigate and overcome barriers to walking to school and otherwise promote the social and environmental and health benefits of walking. It is undertaking or facilitating similar work within its own organisation and with other employers in the Borough, promoting walking as an alternative to the car for the journey to work or trips during work.

The Council works closely with the Primary Care Trust and 'Lewisham Healthy Walks' to promote walking as part of more active and healthier lifestyles. The London Mayor himself highlights within the London Walking Plan, the Lewisham Walking Forum and the Council's work with it to run the annual two week 'Walking Festival'. The Council also organises or participates within a number of other walking promotion activities throughout the year under the London wide 'Good Going' banner.

**LIP Policy 4I.2 Promoting Walking** *For the purpose of guiding its actions and activities relating to the public realm, the Council will employ an informal hierarchy of 'street users' at the top of which is 'the pedestrian'.*  
The means by which the Council with its partners is addressing safety and security issues.

## Action 12 – Promotion of Cycling

- **The Council will participate in the London Cycling and Sustrans National Cycle Networks**
- **The Council will continue to be involved in the London Cycling Campaign**
- **The Council will actively promote cycling for commuting and business use for both the Council and other major employers in the Borough**
- **The Council will provide and encourage secure, covered cycle parking**
- **The Council will ensure that adequate and safe provision is provided for cyclists in new developments within the Borough**
- **The Council will develop and publish the Local Cycling Strategy for Lewisham.**

The Government through its National Cycling Strategy set a target to quadruple the number of cycle trips on 1996 figures by 2012. Lewisham is committed to the attainment of this target and views cycling as a clean, efficient and healthy mode of travel. The Council will actively encourage greater use of cycling and in so doing reduce reliance on the car.

In addition to developing our already extensive Cycle Network, and its links with the National Cycle Network, Lewisham is committed to take action to promote a pro-cycle culture in a range of areas including land use, transport, business, leisure and health. Our strategy will be under constant review to ensure that every part of the Borough can be accessible by bicycle. The Council aims to make cycling a safe and attractive mode of transport for a large number of journeys.

### Cycling - A local strategy

The Council has published a Local Cycling Strategy and the document aims to raise the profile of the cyclist and emphasise the substantial benefits to be

gained from cycling. It provides a framework within which cycling can be developed to the benefit of the whole Borough.

Cycling is not just a recreational pursuit, it has an important role in meeting the transport needs of the community. The strategy will be continually reviewed in order to ensure that every part of the Borough will be accessible safely and conveniently by bicycle, so that once again cycling becomes an attractive mode of transport for a large number of journeys. Cycle routes alone will not dramatically increase the levels of cycling. Action to create a pro-cycle culture is needed in a range of areas that includes land-use planning, transport, business and industrial regeneration, leisure, health, education and law enforcement. The involvement, support and enthusiasm of people from all these areas is vital if Lewisham is to achieve its targets for increasing cycling.

**Partners:**

- Local London Cycling Campaign
- Sustrans
- Transport operators
- Local employers
- Developers
- Education providers
- Health Authority
- Ramblers' Association

A cycle network for Lewisham has been developed over several years and now stands at around 85kms in total. In Lewisham there are two sections of the National Cycle Network, part of the Thames Cycle Route and Waterlink Way and 6 LCN+ routes and several other named cross-borough routes. A map indicating the cycling routes across the Borough has been included as Appendix 2 at the back of this report

Starting from the original GLC pilot schemes, Lewisham has led the South East Sector of the London Cycle Network, now led by Bromley. Progress has been made on route development in Lewisham with signage and parking being the main elements. There have been several partnership schemes leading to over 1000 new Sheffield type cycle stands installed at stations, shopping parades, doctors surgeries, and places of worship.

The main thrust of the works in coming years is to improve the quality of the provision. In this respect Lewisham has welcomed the initiative to prioritise whole routes and provide additional funding through the London Cycle Network. For example, the National Cycle Network Waterlink Way has recently been treated and cyclists now have large sections of traffic free paths on which to ride. Lighting has been improved on park sections and deterrents installed to prevent abuse by motorcycles.

## **London Cycle Network (LCN)**

### **Commitment to the LCN project**

This Council supports the implementation of the London Cycle Network (LCN) as part of a strategy by all the thirty three London Local Authorities for a sustainable integrated transport system across London. The LCN is fully supported by the Government, the Mayor of London and the London Councils.

The whole of the Network is programmed for completion in 2010. A London Cycling Strategy was launched by LPAC/London Pride Partnership in October 1997 and includes a number of targets, in particular, that by 2012 the number of trips in London made by cycle should increase from the present two percent to twenty percent.

The Government's New Deal for Transport strongly supports cycling and has a target of tripling cycle usage in its ten-year plan from 2000 to 2010. The LCN is the key capital investment in London taking this strategy forward to meet the targets. In addition, the London Strategy provides for a forum with business and users to co-ordinate action by both the private and public sectors in promoting cycling.

### **Aims and objectives of the LCN**

The aim of the LCN is to provide a network of safe, convenient and conspicuous fast and comfortable cycle routes linking residential areas with all the major centres of employment, retailing, leisure and transport across the capital. Routes will be suitable for use by cyclists of all age groups and provide both for longer distance journeys across London as well as parts of local journeys.

With the majority of all journeys being under five miles, provision for cycling forms a major part of the initiatives to reduce road traffic levels, accidents, and to improve air quality. The LCN will eventually be 990km in length and does not include the Thames Cycle Route, Lee Valley and Waterlink Way arms of the National Cycle Network.

## **Co-ordination with other authorities**

Responsibility for the implementation of the LCN rests mainly with the London Local Authorities, as most of the network is to be provided on Borough roads and in Borough open spaces. Transport for London is the main provider of funds and resources. Completion of the network is by co-ordinated programmes with other agencies such as Transport for London, London Bus Priority Network, the Royal Parks and British Waterways and network rail.

The voluntary organisations, in particular Sustrans, the London Cycling Campaign and CTC (Cyclists Touring Club) are active contributors to the development and promotion of the network.

## **Monitoring**

Statistics for cycling in London show an increase in cycling, particularly within the central and inner areas and this can be partly attributed to the construction of cycle routes and facilities of the LCN. This increase in cycling is apparent in the number of cycles being used and parked. Monitoring of cycle flows, cycle accidents and other indicators is taking place to ensure that schemes and the Network fulfill the expectations. The London cycle screenline counts have now been completed and show the base flow information at about 600 locations.

Quality Monitoring of selected routes has taken place with additional works commissioned to ensure a good standard of route is achieved.

## **Associated Measures**

### **Planning Measures**

The needs of cyclists should be considered at an early stage when development is proposed so that provision can be built in from the start and not added on later. Developers should aim to provide an integrated and safe environment with the most convenient and direct routes for cycling. Where the Council introduces a new cycle route it will assume responsibility for the maintenance of the route unless some other agreement has been made.

There is a need to take drastic action if the Council is to move to a position where cycling is seen as an integral part of a sustainable transport policy. Cycling needs to be placed centrally in planning local transport strategies. Planning Policy Guidance 12, Development Plans and Regional Guidance, encourages local planning authorities to consider positive encouragement of facilities to assist cycling.

The measures laid down in the UDP are as follows:

**TRN 14 - Cycle Parking**

*The Council will negotiate with applicants for new development and they will be expected to make provision for cycle parking.*

**TRN 15 - Provision for Cyclists and Walkers**

*New development, including transport interchange, should make good provision for users and visitors to cycle to and from the development including convenient safe and secure cycle storage and or parking, changing facilities in developments and the provision of cycle storage facilities at transport interchanges.*

**TRN 16 - Developing Pedestrian and Cycle Networks**

*The Council will implement the Strategic Cycle Network. It will develop a network of safe, convenient and pleasant cycle routes linking with each other, bus and rail networks, open spaces and the main centres of activity in the Borough including journeys to school and to Town Centres.*

**Transport and Streets: Local Implementation Plan (LIP)**

*LIP Programme 4J.6 Promoting Cycling. The Council proposes continuing to provide cycle training at a number of schools in the Borough, the extent of the programme dictated in part by the level of funding provision.*

The Council has a long-standing programme of playground based cycle training run at a number of Lewisham Schools. In 2005/06 TfL provided funding to extended this scheme to include parents and carers and on-street cycle training. As well as covering 'personal safety', the training also deals with 'considerate cycling' and the safety of others'. The scope and coverage of this training is dictated by the funding available. Subject to funding, this will be an ongoing programme. Initially, schools that have completed School Travel Plans will be targeted in order to encourage cycling to School as part of those Plans, and cycle training will continue to be offered to adults in the Borough. Outside of the schools' community, the Council proposes exploring routes to providing training for adults wishing to take up or return to cycling as part of more active travel.'

**Safety and Cyclists**

The Council is already working towards increasing cycling as an attractive, efficient, safe, clean and healthy form of transport. The main deterrents to cycling include concern for safety a hostile road environment and lack of secure parking facilities. These problems are both perceived and actual.

There is some concern that a growth in cycling will lead to an increase in the numbers of accidents. It is therefore important to address the safety problems in respect to cycling at the same time as encouraging greater cycle use. In the network already introduced segregated cycle lanes, toucan/other crossing facilities, on-street cycle lanes and cycle parking facilities have been included. Having introduced these measures it is important that the facilities are maintained to high standards; good initial design will help keep maintenance to a minimum.

The Council will inspect cycle facilities on a rolling programme that is reviewed annually. In addition the Council will seek to implement cycle facilities, particularly on the Borough's Cycle Network, as part of its on going engineering work programme. Schemes designed and implemented as part of the Council's Accident Investigation and Prevention (AIP) and Area Studies Traffic Calming programmes will, where justified, take into account the Borough's Cycle Network.

The Council participates in and promotes national events such as National Bike Week where it helps to promote cycling. Road safety campaigns will continue with the aim of improving the attitudes of other road users to cyclists and the standard of cycling. The main way of reducing the number and severity of accidents is a general reduction in motor vehicle speeds and increasing awareness by drivers of cyclists on the road. The education of cyclists needs to reflect the fact that they are more varied than car drivers in age, skill and attitude.

Inevitably, the Police will be the main enforcement agency, though the impact of other enforcement agencies must not be underestimated. The Police are responsible for enforcement of speed limits, for parking on "Red Route" (waiting restrictions) and a wide range of other traffic offences that can have a detrimental affect on cyclists. The Council will support the Police in their work and try to help identify locations where particular problems occur so the action can be targeted to ensure maximum impact. Informal enforcement can also be carried out by parents, schools and other organisations via parental control, peer pressure and the introduction of rules and physical measures to enforce control.

### **Cycling on pavements**

The Council will follow the lead to be given by TfL in working to increase awareness of the problems caused by cycling on the footway and subject to the provision of funding anticipates working with TfL to implement the measures to be identified to address the issue.

## **4.5 Actions 13-15: Measures to manage parking and traffic levels**

### **Action 13 – Measures to manage parking in the Borough**

- **The Council will produce Lewisham's Parking Strategy**
- **The Council will support the re-allocation of parking spaces for residents, businesses, commuters and shoppers in a reasonable and fair way**
- **The Council will work with neighbouring boroughs to ensure co-ordinated on street parking controls across borough boundaries**
- **The Council will manage parking spaces effectively and policy will be enforced to prevent infringements, which prevent the smooth running of public transport.**
- **The Council will periodically review parking charges for on-street parking and car parks to ensure they serve to restrain non-essential journeys**
- **The Council will discourage long term parking, facilitate short stay, high turnover parking and reduce the overall demand for parking places**
- **The Council will adopt parking standards for new developments, which restrain the use of the car and increase cycling, walking and the use of public transport**
- **The Council will actively encourage car-free residential developments in certain locations**



It is recognised that ever-increasing car-use leads to ever-increasing demand for parking space outside the home, at work and at leisure destinations, in the Borough's town centres and on the Borough's streets. In turn, this leads to space and time-specific conflicts between, for example, residents, businesses, commuters and shoppers. To this end, parking plays a key role in the Council's wider transport strategy. Parking can affect travel patterns by influencing the chosen destination, time of travel and mode of travel. It is through parking restrictions that the concepts of more sustainable travel are communicated to and perceived by many of Lewisham's residents. It is in this context, the 'sharp end' of transport strategy actually impinges on peoples' travel choices on a daily basis.

Planning policy, as expressed through Government Guidance, is clear about the need for integration of traffic management and parking controls to encourage a pattern of land use and transport provision that minimises harm to the environment and reduces the need to travel, especially by car. These should be consistent with the needs of sustainable development and to facilitate the development of transport systems that are safe, efficient and which contribute to the achievement of competitiveness, regeneration and environmental quality.

The Council regards the effective use of the various parking controls at its disposal as a means of controlling parking capacity at the trip end. Thereby this restrains traffic, reduces congestion, encourages safer and smoother traffic flows throughout the Borough and ultimately helps to reduce emission levels from cars overall.

## **Lewisham's Parking Strategy**

The following objectives set out the parking philosophy of the Council and form the basis for the Council's Parking Plan.

### **Overall Parking Objectives**

- Protection of the environment and pursuit of sustainable development through use of parking control as a means of traffic restraint.
- Road safety and, in particular, the prevention of personal injury accidents.
- Free flow of pedestrian and vehicular traffic, particularly public transport.
- Protect essential accesses for pedestrian and vehicular traffic, particularly for the less mobile and visually handicapped.

- To contribute to the Council's Air Quality Management Programme.
- To facilitate competitiveness and regeneration of the Lewisham economy.

### **Specific Parking Objectives**

- The Council will introduce effective parking controls, particularly on bus routes and main roads to minimise the impact of car parking on other road users, and in accordance with the "overall objectives" above.
- The Council will continue to work with neighbouring authorities to ensure co-ordination of on-street controls across borough boundaries.
- The council will continue to assess how best to extend existing or introduce new Controlled Parking Zones (CPZs) in Lewisham, in response to changing circumstances and in accordance with the Council's CPZ programme.
- Thorough public consultation will be undertaken before any new CPZs are introduced.
- Parking space will continue to be managed effectively and policy enforced to prevent transgressions that would affect the smooth operation of public transport in Lewisham.
- Waiting and loading restrictions in the Borough will be subject to review, amendment, consolidation and enforcement to maintain the "overall objectives" above.
- All on-street restrictions are to be adequately and clearly signed without contributing to street clutter.

- The Council will aspire to ACPO accreditation for all of its car parks.
- In residential areas, parking standards for new development are to be applied more flexibly in the light of a transport accessibility assessment.
- The role of parking is recognised as important in the commercial success of Lewisham's town centres. Existing parking provision will be managed, and new parking provided in a way that will complement economic development initiatives without encouraging increased car use
- The Council will continue to apply the London overnight and weekend lorry ban and to provide sufficient off-street lorry parking to allow this to be enforced.
- Parking charges will periodically be reviewed to ensure that they serve to restrain non-essential journeys, discourage long term parking, facilitate short stay, high turnover parking and reduce the overall demand for parking places.
- Priority will be given to the disabled driver in all areas of parking control.
- The list of streets in the Borough exempted from footway parking will be reviewed periodically.
- Enforcement activity will be undertaken in accordance with the Parking Committee for London's Code of Practice for Parking Enforcement and in pursuance of the other policies in this document.

Taking into account the above objectives, there are several specific areas where changes have been made to reduce the impact or use of the motor vehicles through parking restrictions.

### **Traffic Management and Parking Guidance 1998**

In February 1998 the Secretary of State issued "Traffic Management and Parking Guidance for London" to ensure that the exercise of traffic powers by any London Borough Council does not adversely affect traffic or parking in another Council's area. Lewisham has in the past liaised closely with adjoining Boroughs on schemes of mutual concern and will continue to do so in accordance with this guidance.

## **On-Street Parking**

On-street parking congestion arises in Lewisham primarily through the competition between the local resident population searching for space to park at or close to their homes, onward commuting, local worker parking and visitors. Government guidance suggests Controlled Parking Zones (CPZs) as the way forward, and in this spirit, the Council is fully committed to their introduction and expansion in Lewisham. CPZs have already been introduced in some parts of the Borough, Catford and Lewisham, with further ones planned.

The Council's priorities for provision and control of on-street car parking are: -

- Safer and adequate access for emergency and other vehicles.
- As a deterrent to greater car use.
- To provide space conveniently located for residents who have no off-street provision.
- To control the short and long term balance of on and off-street parking by time and charging.
- To maximise the usage of convenient space to contribute to the economic strength of the town centres.

## **Other on-street controls**

All eighty schools in the Borough have 'zig-zag' markings. Where appropriate they are enforceable during specified, consistent, morning and afternoon periods preventing vehicles stopping. In enforcing zig-zags special attention is paid to primary schools where the dangers to children are most acute.

The Council has long had a policy of developing and improving public transport provision. 'Bus Stop Clearways' are a means by which other vehicles are excluded from stopping for any reason within the marked area. Their maintenance and enforcement allows access for buses at agreed stopping places; this improves reliability and passenger safety. Distinct and unique signing for the clearways serves to reinforce the priority. A programme for bus stop clearway implementation is included within the joint Lewisham and London Transport "Bus Quality Commitment" (BQC), to be funded by the London Bus Initiative (LBI).

Lewisham has negotiated a Service Level Agreement with TfL with regard to enforcement on the TLRN. Within the annual LIP funding there will be a rolling programme and bid for parking control including CPZ development over the next ten years. This will be based on priority lists and an implementation rate of 1-2 zones per annum, dependent on size, or more small-scale zones.

## **Controlled Parking Zone (CPZ) Programme**

Every year more and more cars use our streets increasing pressures on already overcrowded roads. In many places residents now find it difficult to park anywhere near their homes. This can present major difficulties to some people, for example parents with young children, people carrying heavy shopping, the elderly and less mobile people and it seriously affects their quality of life. Areas where there is very heavy pressure on parking space are often found near railway stations, shops, hospitals and colleges. Sometimes quite a large area is affected but in other cases problems are concentrated in just a few streets.

A Controlled Parking Zone can sometimes resolve these difficulties. The main purpose of CPZs is to manage overcrowding. They help to control intrusive parking by limiting or eliminating commuter parking and giving priority to residents and to short term parking for shoppers, visitors and social users.

The Council also uses CPZs to help the regeneration of town centres within the Borough. All space other than for residents and business parking space in a CPZ, is short stay space. This ensures that more space is available for people making short trips to the shops or to use local facilities. CPZs also help to improve the local quality of life by removing obstructive parking from junctions and corners and allowing free access for local people and the Emergency Services.

At present there are eight Controlled Parking Zones (CPZs) in Lewisham, Blackheath, Grove Park, Rushey Green west, Hither Green west, Lewisham, Old Road/Bankwell Road, Elverson and a small zone in Honor Oak.

The use of CPZs fits within the larger traffic management policies of both central Government and of this Council. By limiting 'end destination' parking, either for commuters who finish their journey to work in one of the town centres, or for those who leave their cars here and travel onwards, the Council aims to encourage the use of public transport and begin to reduce the amount of traffic on the Borough's roads.

## **Off-Street parking**

Off Street parking takes two main forms:-

- purpose-built or specifically designated car parks, generally at town centre locations; and
- individuals' home parking space, either a garage or driveway or on converted garden hard-standing.

The Council owns or operates twenty pay and display car parks, all but one of which are at surface level. It is Council policy to establish tariffs, which generally favour short-stay parking in order to encourage shoppers and deter any commuter or other long-stay, that is day-long, users. The higher turnover engendered by short stay use is also a useful tool in the promotion of security.

## **Parking Charges**

The Council has set parking charges so that its parking activities as a whole are at least self financing, and to:-

- ration the available space by time and cost.
- restrain non-essential journeys.
- discourage long-term (commuter) parking.
- encourage short-term (customer) parking in retail areas.
- reduce the overall demand for parking.

Parking charges are one way of influencing peoples' travel choices. Applying the full commercial cost to a business-parking permit will have the effect of discouraging take up, thereby freeing space for visitors and shoppers. The business permit charge is set in line with the commercial rate for an off-street parking space. That cost will include the cost of lighting, cleaning, ground rent, rates and repairs.

## **Lorry Parking**

The Council recognises the need for residents to be relieved of the environmental impact of parked heavy goods vehicles and also the visual intrusion, fumes and noise at anti-social hours. It also recognises that drivers en-route, or with no real alternative, need off-street provision.

The Council wishes to improve the environment of the Borough by controlling on-street parking of lorries and providing off-street lorry parks, thereby minimising the environmental impact of heavy goods vehicles.

The London overnight and weekend lorry parking ban was implemented in July 1974. Before the ban came into effect there were some 600 lorries parked on Lewisham's streets overnight. Since then, the figure has been substantially reduced to the extent that it is now rarely a problem.

In order to comply with the Traffic Regulation Order prohibiting overnight parking, it is necessary to provide sufficient off-street spaces to prevent abuse of the Order.

## **Associated Measures**

### **Planning**

The Mayor's Transport Strategy has made it clear that councils should adopt parking standards for new development that seek to restrain use of the car and increase cycling and walking provision. This can be achieved by seeking to express parking standards as a maximum; that is the maximum parking space provided with a development, as opposed to a minimum that must be provided.

Car parking policy is an important strand of an integrated transport strategy and planning proposals documented in the UDP involve persuading more people out of their cars and onto public transport, cycling or walking. It therefore follows that there will be less need for car parking provision. As a more active element in the strategy the persuasion to change to more sustainable modes can be encouraged by providing less car parking which can actively persuade people to change to more sustainable modes of transport.

In particular, development in areas with good public transport accessibility could have less parking allowed than developments in areas of the Borough where public transport is less extensive, in which case more parking space would be allowed.

The Council's standards for car parking provision in relation to new development will therefore reflect the restraint objective and will not attempt to meet the full demand. However, the Council recognises there is a role for short stay visitor car parking in town centres in order to protect their vitality and viability.

The measures laid down in the UDP are as follows:

**TRN 24 - Car Free Residential Development**

*Residential development without parking provision may be acceptable in areas with very good public transport accessibility and where developers can demonstrate that the development will have no adverse impact on on-street car parking.*

**TRN 25 - Off-Street Parking for Residential Conversions**

*The Council will not require off-street car parking for residential conversions unless it is considered necessary to protect the local environment, including problems caused by on street car parking, or pedestrian safety. In Conservation Areas no off street parking will be permitted in front gardens. Exceptions may be made on a personal basis only for people with disabilities.*

A key component of the sustainable transport strategy is parking policy. If the benefits of reduced traffic levels, improvements in safety and air quality are to be achieved then the overall amount of car parking will have to be restricted.

The emphasis in policy is to encourage a shift away from the use of the car for personal trips and towards public transport, walking and cycling, particularly for short trips. The Council needs to set a balance between the legitimate needs of residents and the environmentally damaging effects of traffic.

**TRN 26 - Controlled Parking Zones**

*The Council will keep under review the existing Controlled Parking Zones (CPZs) and will consider introducing new CPZs particularly in and around town centres, railway stations and other high traffic generating land uses. Developers whose proposals may adversely affect the on-street parking situation may be required to contribute to the introduction of a CPZ.*

The Council's main objectives with regard to the provision and control of on-street car parking are:

- safe and adequate access for emergency and other vehicles;
- to provide space conveniently located for residents who have no off-street provision;
- to control the short and long term balance of on and off-street parking by time and charging and;
- to maximise the usage of convenient space to contribute to the economic strength of the town centres.



A programme of CPZ introduction has been devised to cover the problem areas in the Borough and this will be introduced as resources allow in consultation with residents and business.

Annex 3 shows the location of existing and proposed CPZs in Lewisham. In the case of the proposed areas this is indicative only. No decision on implementing a CPZ will be taken without full consultation with local people.

### **TRN 27 - Car Parking Standards**

*'The Council will normally require development to make provision for off street parking in accordance with the Council's standards. Exceptions may be made for people with disabilities and for residential development within Sustainable Living Areas having regard to the level of public transport accessibility'*

### **TRN 27A - Dual use of Private Car Parks**

*The Council will negotiate with developers for the public use of private commercial car parking spaces in the Major and District Town Centres.*

Government guidance states that the amount of traffic generated by new developments should be minimised by placing maximum limits on the level of off-street car parking spaces permitted.

This is consistent with a policy of road traffic reduction which is supported by the Council. The maximum level of parking provision will help reduce traffic congestion and car dependency and this will also help improve bus reliability and other improvements for non-motorised sustainable travel such as walking and cycling.

### **HSG 13 - Sustainable Living Areas**

*When considering applications for residential development, new build and conversion, in the Sustainable Living Areas (SLAs) the Council may, subject to other policies in the Plan and the quality of the design of the proposed scheme, apply density, parking and other planning standards more flexibly.*

Sustainable Living Areas are mainly focused on the pedestrian catchment areas of the majority of major and district names in the Borough. They cover 7.7% of land in Lewisham and have been designated because they are considered to have real potential for sustainable development and innovative forms of modern living on the basis of their accessibility to town centre services and public transport links. When high quality schemes are proposed the Council may apply its standards more flexibly.

## **Transportation and Streets: Local Implementation Plan**

### ***PEP Policy 7.1 Hierarchy of Parking Demand***

In designing Controlled Parking Zones and seeking to balance competing demands and needs for car parking space, the Council will be guided by the following hierarchy:

1. Residents,
2. Shoppers, visitors, those servicing local businesses and directly adding to the local economy,
3. Local workers,
4. Commuters, with a higher priority within these groups for people with mobility impairment.

***PEP Policy 7.2 Wider Objectives for Parking Controls*** *In proposing and designing parking controls, the Council will seek to enhance pedestrian and driver visibility and safety.*

***PEP Policy 7.3 Consultation with other Traffic Authorities*** *When proposing parking controls in streets adjacent to those of another Traffic Authority, the Council will seek to liaise with that Authority.*

***PEP Policy 7.4 Permit Charges*** *The Council will keep under review charges made for the various types of parking permit, guided in part by benchmarking against charges levied by other London local authorities and the hierarchy of parking need in PEP Policy 7.1*

***PEP Policy 7.5 Parking Charges (pay and display bays on and off street)*** *The Council proposes annually reviewing its charges for pay and display parking*

### ***PEP Policy 7.6 Disabled Person's Parking Bay***

The Council will consider requests from individuals for (formal or informal) disabled persons parking bays to be provided, subject to the following criteria being met:

- i. The applicant is in possession of a valid disabled persons' blue badge.
- ii. The applicant resides in a dwelling that cannot facilitate offstreet parking.
- iii. The on-street parking conditions have been observed to be severe on a regular basis.
- iv. The applicant's vehicle must be permanently based at the applicant's address and in use most days.
- v. The applicant need not be the driver but the vehicle must be registered at the relevant property.

### ***PEP Policy 7.7 Criteria for 'Crossovers'***

The criteria for provision of a cross-over are as follows:

- (i) the proposed crossover would ensure as far as practicable safe access and egress from premises; and the construction of a cross-over/s would not present especial difficulties for pedestrians - in terms of levels, inter-visibility, width of cross-over/s, frequency of cross-over or on other safety considerations; and
- (ii) the proposed crossover would not have a detrimental effect on the passage of vehicular traffic on the highway; and
- (iii) The Council will not usually permit crossovers where this will result in a detrimental effect to the street environment by the removal of grass verges, other planted areas or trees and,
- (iv) where engineering issues such as utilities or levels make the construction of a cross-over impracticable.

***PEP Policy 7.8 'Car Reduced' Planning Agreements:***

In order to prevent 'car reduced' residential development contributing to on-street parking demand and parking stress, the Council will require developers of such schemes within controlled parking zones (particularly in town centres, the UDP defined Sustainable Living Areas or other areas of high public transport accessibility), to enter into a Section 106 Agreement tied to the relevant planning permission to achieve this outcome.

***PEP Policy 7.9 Effective HGV Management***

The Council proposes to continue to actively review access into residential areas for HGV traffic and will endeavour to achieve a balance between facilitating delivery access to residential areas and to local businesses, and preventing HGV traffic from using inappropriate routes and having a detrimental effect on residential areas.

***PEP Policy 7.10 Enforcement Objectives***

The Council's overall parking enforcement objectives are:

- To protect the environment and to pursue sustainable development through use of parking control as a means of traffic restraint.
- To provide for the safety of road users and the prevention of personal injury accidents
- To ensure a free flow of pedestrian and vehicular traffic, particularly for the mobility and visually impaired
- To ensure unrestricted flow of buses, securing access to bus stops and ensuring ability of buses to pull away from stops.
- To contribute to the Council's Air Quality Management Programme
- Facilitate the competitiveness and regeneration of Lewisham's economy.

## Action 14 – Speed Management

- **The Council will continue the current programme of traffic calming measures to reduce speed and improve the local environment.**
- **The Council supports the principal of Home zones and 20 mph zones and intends to introduce the Council's Area Traffic Calming strategy that incorporates Safe Routes to Schools and the Home Zone concepts.**

Traffic management is a useful tool for encouraging walking and cycling, improving the quality of local neighbourhoods and making the streets safer for children and adults. The issue of perceived safety or danger needs to be addressed as this insecurity can deter walking, cycling and public transport use. The provision of safe and secure parking for cycles will also be important in encouraging more cyclists. The fear of assault and intimidation is also a problem that needs to be addressed to make the pedestrian environment more pleasant and thereby encourage more people to walk.

### Lewisham's problems

- Almost 1300 accidents causing almost 1600 casualties per year
- Rat-running in residential areas and around schools
- Excessive levels of speeding traffic with only limited enforcement
- Substandard street lighting on Borough roads
- Carriageways and footways in less than ideal condition on Borough roads

### Lewisham's objectives

- Change peoples perception of highway danger and safety
- Implement the Council's Road Safety Plan
- Implement the Council's Cycling Strategy and a Borough-wide network of safer cycle routes.
- Implement the Council's Local Walking Strategy and the provision of safer facilities and routes for pedestrians
- Introduce a speed reduction policy

- Introduce the Council's Area Traffic Calming strategy that incorporates Safe Routes to Schools and the Home Zone concepts
- Improve maintenance of the existing highway network and structures
- Improve health as a result of increases in walking and cycling
- Require the layout of new developments and re-developments to incorporate all current safety requirements
- Introduce, with TfL, a continuing programme for the provision of pedestrian crossing facilities and the review of existing signaled junctions to highlight where pedestrian priority can be improved with an emphasis on pedestrian movement and safety.

## **Traffic calming**

Speeding on roads in residential areas is one of the most common complaints that the Council receives. Indeed, requests from concerned residents, to provide "traffic calming" on the road network, are received regularly from all over the Borough. Lewisham's road safety policy was radically revised in the summer of 2001 when the Council's Executive Committee approved an area-based approach for future traffic management issues.

To this end, the Borough has been divided into twenty eight discreet areas, each of which is bounded by well established through routes, and reflects natural geographical communities. All of these areas have been assessed and prioritised according to their current need for traffic calming. The priority list based on the accident data, traffic flow data and the number of schools, parks, hospitals and homes for the elderly, parking problems and the existence of known rat runs.

This approach has a number of advantages:

- It provides an opportunity for local communities to highlight and discuss what they consider to be the most important traffic related problems. The Council engineers can then effectively address local concerns.
- It avoids the displacement of traffic problems onto neighbouring streets.
- Area-wide measures such as 20mph zones can be introduced.

There are a number of measures that the traffic engineers can use to ameliorate problems of inappropriate speeds and rat running in residential streets. These measures include road humps, speed cushions, kerb build-outs, mini-roundabouts and alterations to the road layout. Many of the areas traffic calmed are made into 20mph Zones. The 20mph Zones are designed in such a way as to make it possible to convert them into Home Zones when funding becomes available.

## Safer Routes to Schools

As part of the Council's area programme and in line with the strategy document "Child Pedestrian Safety in the United Kingdom" and the "Streets for People" initiative, the Council is now looking to put a greater emphasis on traffic calmed 20mph Zones, prioritising inner city streets and older housing estates linked with education and encouragement to take up walking, cycling and public transport.

It is recognised that walking and cycling to school have declined markedly since 1970 and the numbers of parents driving their children to school has increased, this is a major cause of congestion in the morning peak travel times. Walking and cycling to school by pupils will be the first target grouping but, equally, those parents conveying children by car must be made aware of the positive health attributes of changing their habits.

Those working at schools will also be able to take advantage of any resource used to encourage walking and cycling as an access method. In Lewisham these groups comprise approximately 80,000 people.

The main obstruction to these trips being made by foot or cycle is the perception that the journey will be fraught with difficulty and danger. Safer routes are designed to try and overcome these perceived difficulties and dangers.

By applying safer routes to schools in the Borough it is hoped to get the numbers of pupils walking and cycling to school back up to 1970s levels. The project is expected to lead to parent to school trips being made by foot and cycle with the added advantage of extra trips being made by these modes away from the school, for example, on to the workplace.

## Associated Measures

### Transportation and Streets: Local Implementation Plan

**LIP Programme 4G.3 Streets for All: Casualty reduction** *The Council proposes pursuing:*

- *street redesign and traffic regulation programmes;*
- *enforcement; and*
- *street user information and education programmes to take the Borough towards the road casualty reduction objectives.*

**LIP Programme 4G.4 Streets for All: Reducing speeds** *The Council proposes extending the areas of the Borough subject to 20mph zones and Safer-Routes-to-School.*

## **Action 15 – The Council will work with external bodies such as TfL to manage road planning**

- **The Council will work with TfL to manage the road system in the most efficient way compatible with a policy of traffic restraint, road safety and meeting the needs of residents and those working in the Borough.**
- **The Council will ensure that new road schemes and improvements to existing roads are only allowed where the proposal is consistent with public transport, cyclists, pedestrians, safety requirements and traffic restraint measures and which allow traffic to be assigned from unsuitable roads in the road hierarchy.**

Nationally traffic delays cost the Country £15 billion per year. Car trips account for half of all daily journeys by vehicle in London and this leads to congestion and poor air quality, especially at peak times.

In the Capital the road hierarchy is split up so that TfL is the highway authority for 5% of the road network (TLRN) with the Boroughs being responsible for the rest. Lewisham is criss-crossed by the TLRN (A2, A20, A21, A202, A205), which carries a third of London's traffic, and the Council has little or no say on how traffic uses these main roads. Daily, during the week, approximately 250,000 vehicles travel through the Borough to and from Central London.

### **The Road Hierarchy**

Strategic Routes (Transport for London Road Network)

A2 New Cross Road to Shooters Hill Road (including Kender Street)  
A20 New Cross Road to Eltham Road  
A200 Evelyn Street to Creek Road  
A202 Queens Road to New Cross Road  
A21 Molesworth Street to Bromley Hill  
A205 South Circular

### London Distributor Routes (LBL Responsibility)

A212 Westwood Hill to Catford Hill  
A213 Newlands Park  
A200 Evelyn Street to Creek Road  
A2015 Beckenham Hill Road  
A2209 Deptford Church Street  
A2210 Brookmill Road to Baring Road  
A2211 Lewisham Road  
A2212 Burnt Ash Road to Baring Road  
A2214 Lausanne Road  
A2216 Dartmouth Road to Sydenham Road  
A2218 Southend Lane and Stanton Way

### Local Distributor Routes

B206 Plough Way to Grove Street  
B207 Trundleys Road to Pagnell Street  
B220 Belmont Hill to Prince of Wales Road  
B212 Lee Road  
B218 Florence Road to Brockley Rise  
B226 Chinbrook Road to Grove Park Road  
B227 Perry Vale to Perry Rise  
B236 Adelaide Avenue to Ladywell Road  
B238 Forest Hill Road to Honor Oak Park  
B2142 Gellatly Road to Brockley Cross

Hither Green Lane  
Local Access Roads

Many of the suggestions within the Government's national guidance on transport plans and traffic reduction have, or are, already taking place within London.

Every ten years the London Area Transport Study (LATS) takes place in conjunction with the National Census and this gives much of the travel data for all modes that is sought. The DEFRA/TfL carry out regular traffic counts on the Capital's main roads to validate LATS and establish trends.

Lewisham carries out many traffic counts throughout the year and has started its own monitoring by way of annual counts on its main roads. Red Routes, the London Bus Priority Network, the London Bus Initiative, London Cycle Network and many other transport initiatives aimed at providing alternatives to the car, are all in reality taking place in London at the moment.



On its own, Lewisham Borough is not able resolve London's wider transport problems it can only contribute as a part of the whole.

Transport solutions to London's transport problems need to be developed on a Capital-wide, or minimally, on a sector-wide basis. These solutions would include measures to improve safety and to reduce dependency on the car through the continued promotion and improvement of public transport, walking and cycling, which in turn improves the environment and air quality by reduction of road traffic.

Similar measures could be taken to increase the proportion of freight carried by rail or water and thus help mitigate the effects of HGVs in terms of noise and pollution, particularly at night and weekends.

The London Boroughs Transport Scheme is designed to achieve this on a London wide basis. Lorry bans or major demand management measures have to be part of a wider strategy for "through traffic". Careful design is needed to ensure that problems are not transferred to either unsuitable roads or to adjacent Boroughs.

Lewisham is of the opinion that these types of strategic initiatives need to be handled from the 'top down' and co-ordinated London-wide. Therefore, Lewisham suggests that there should be a three-tier hierarchy of responsibility: -

**Regional** - GLA/TfL. The GLA/TFL would set standards, objectives and provide guidance for those further down the hierarchy. It would provide capital funding for data collection, design, implementation and monitoring of transport mechanisms, which in turn, through for example congestion charging, will provide revenue to fund more capital projects and help towards traffic reduction.

**Sub-regional** - SELTRANS and TGLP. It is anticipated that these groups of Boroughs will work together in setting broadly similar objectives, traffic/parking management and charging systems and will lobby the GLA/TFL collectively when bidding for their area.

**Local** - Borough level: Boroughs, groups of Boroughs or their representatives, will be responsible for advising the GLA/TFL on their overall strategy as it applies locally. They will be charged with data collection, design implementation and monitoring of any measures.

## **Associated Measures**

### **Planning**

The measures laid down in the UDP are as follows: -

#### **TRN 18 - The Road Hierarchy**

*The Council will manage the use of roads in the Borough by establishing the road hierarchy consisting of Strategic Roads, London Distributor Roads, Local Distributor and Local Access Roads.*

Defining a road hierarchy allows measures to be devised and taken which channel traffic onto the roads in the Borough most suitable to take them. The Council will attempt to manage the road system in the most efficient way compatible with a policy of traffic restraint, road safety and meeting the needs of residents and those working in the Borough. A number of roads in the Borough are under the control of the Greater London Authority as part of the Strategic Road Network.

A map of the road hierarchy is shown as Annex 4.

#### **TRN 19 - New Road Building and Improvements**

*The Council will only support new road schemes and improvements to existing roads which are consistent with the needs of public transport operators, cyclists, pedestrians, safety requirements and traffic restraint objectives or local planning objectives and which allow traffic to be reassigned from unsuitable roads in the road hierarchy.*

The Government recognises that it is not possible to resolve the problems of congestion and pollution through major new road construction. However, new road construction and improvements can in some circumstances help improve traffic movement, but there is always a cost. To ensure that the overall strategy of road traffic reduction is met, the primary consideration in judging a new road proposal will be its contribution to implementing the sustainable transport strategy.

New schemes will therefore be considered against their impact on local residents, the reduction in congestion, improvements in public transport, safety issues and the distribution of traffic to the appropriate level of the road hierarchy. Over the lifetime of this plan it is likely that only small scale road improvements will take place in Lewisham.

### **Transportation and Streets: Local Implementation Plan (LIP)**

**LIP Policy 4G.2 Streets for All: Allocation of street space**

In balancing the use of street space, account will be taken of the objectives of the Transport Strategy. Key priorities for the development of Lewisham's streets are –

- to tackle congestion and to reduce the level and impact of traffic in the town centres and in residential areas;
- to make Lewisham's streets safer and more secure, particularly for pedestrians and other vulnerable street users;
- to manage better the use of street spaces for people, goods and services;
- to improve the attractiveness and amenity of Lewisham's streets, particularly in town centres and residential areas.

**LIP Policy 4G.8 Streets for All: Tackling Congestion, Reducing Traffic and its Impacts**

The Council (working in parallel with the other London boroughs and TfL) proposes employing the spectrum of Policies, Programmes, Schemes and Measures set out within the LIP, the UDP and emerging Local Development Framework, to reduce the growth in traffic that would otherwise occur if present trends were to continue.

## **4.6 Action 16: Development Control Measures**

### **Action 16 - Measures to reduce emissions from new developments**

- **The Council will require an assessment of the likely impact on air quality for developments within an AQMA and in some circumstances outside of an AQMA where accumulative effect of developments is a concern or where there is the potential to cause a significant deterioration in air quality unless measures to minimise the impact of air pollutants are included**
- **The Council will seek to minimise any negative air quality impacts from the developments particularly those in AQMA**
- **The Council will require transport impact assessment and/or Environmental Impact Assessment where a development is considered to have a significant effect upon the environment and to assess the likely travel movements by all modes and their impact on congestion, safety and the environment of the surrounding area**
- **The Council will continue to seek more sustainable travel choices from developers for new developments. This will ensure that developments that generate a large volume of traffic should be located close to good public transport facilities**
- **The Council will encourage developers to draw up Green Travel Plans where the development will attract or employ a large number of visitors**
- **The Council will seek section 106 planning obligations to mitigate adverse impact on air quality for developments within the AQMA**
- **The Council will encourage sustainable design within the AQMA through design policies of emerging Local Development Framework (LDF) development plan documents**

It has been established that traffic is the main source of air pollution in Lewisham. A raft of measures, outside the scope of planning, such as stricter controls on vehicle emissions and the introduction of a Low Emission Zone will help to tackle the problem. There is, however, a great deal that local planning officers can do.

The planning policy response should concentrate on policies to reduce the need to travel and policies to encourage the use of public transport, walking and cycling. There must be close co-operation between planners, traffic engineers and environmental health officers to integrate land use and transport policies to effect air quality improvements.

Lewisham has and continues to have a number of large scale developments, including major railway infrastructure schemes. To this end, many of the proposals have required an Environmental Impact Assessment and in addition, the Council, has also asked for an Air Quality Impact Assessment to be carried out to assess the likely affect the proposed development may have to the air quality in the immediate area.

In the UK, the land-use planning system is fundamental to the long term improvement of air quality and the key objective of the local air quality management process is to ensure the integration of air quality considerations into other local authority policy areas, such as land-use planning and development. The Air Quality Strategy clearly expresses a need for local authorities to take air quality considerations into account when:

- preparing development plans;
- preparing local transport plans; and
- determining of individual planning applications.

With this in mind, the following policies and strategies dictate the approach to development that should be taken with regards to Air Quality

### **Saved Unitary Development Plan Policies and Interim Transport Plans**

Under the provisions of the Planning and Compulsory Purchase Act 2004 the Lewisham UDP (Adopted July 2004) was saved for a period of 3 years that expired in September 2007. The Secretary of State has issued a Direction which continues to save most of the UDP policies until we adopt Local Development Framework Core Strategy and other development plan documents.

A planning application should be determined in accordance with the UDP unless material considerations indicate otherwise. Such plans must indicate

the planning authority policies for land use, including the management of traffic and development, which may affect air quality.

Following below is the list of 'saved' transport and other relevant policies from the adopted UDP.

The Council has ensured that policies in the UDP and Interim Transport Plan (ITP) are fully integrated, seek to reduce the need to travel and refer to Air Quality and Air Quality Management Areas. In future years, the Council may consider the introduction of Low Emission or Clear Zones to both policies to limit vehicles entering certain areas unless they comply with specified emissions limits.

The following policies deal with ways of integrating development with public transport; protecting and improving public transport; the Council's approach to new development road building and traffic management; development policies for cyclists and walkers; and sets out car and cycle parking standards.

Part 1 states in broad terms the general policies and proposals of strategic importance for the development and use of land in the Borough. It provides a strategic framework and a context for Part 2 which sets out detailed policies and proposals together with a reasoned justification for both the Part 1 and Part 2 policies.

## **Part I Policies**

### **STR.TRN 1 - Land Use and Transport**

To co-ordinate land use and development with the provision of transport and car parking, so as to minimise the need for car travel; provide good access to premises, especially in Town Centres and safeguard the environment and amenities of residential areas.

### **STR.TRN 3 – Cyclists and Pedestrians**

To ensure that adequate and safe provision is made for cyclists, pedestrians and people with disabilities in new developments and to improve access and facilities to and within existing land uses for people using them with particular reference to safety issues.

### **STR.TRN 4 – Car Parking**

To adopt an integrated car parking strategy which contributes to the objectives of road traffic reduction while protecting the operational needs of major public facilities, essential economic development and the needs of people with disabilities.

## **Part II Policies**

### **Integrating Land Use, Development and Transport**

#### **TRN 1 - Location of Development**

Development proposals that generate a large volume of traffic or person movement must be located close to good public transport facilities or where this can be provided as part of the proposal.

#### **TRN 2 - Travel Impact Statements**

Developers of major schemes will be required to provide Travel Impact Statements, which assess the likely travel movements by all modes and their impact on congestion, safety and the environment of the surrounding area.

#### **TRN 3 - Developer Contributions**

Where appropriate, contributions to highway improvements or traffic management measures (which are necessary for the development to proceed) and to public transport services or facilities or other measures to improve accessibility by pedestrians or cyclists will be sought from developers.

#### **TRN 4 - Access for Public Transport**

Developers of major schemes should provide road and footpath access that takes account of the requirements of public transport providers.

#### **TRN 5 - Green Travel Plans**

The Council will encourage business and organisations that either employ or attract a large number of visitors, to draw up Green Travel Plans. In appropriate circumstances a S106 obligation may be sought on this matter.

#### **TRN 6 - Employment Areas**

The Council will seek to improve public transport, cycling and pedestrian access to designated employment areas and to other sites with high visitor/employee trips.

**TRN 7 - Transport by Rail**

The Council will encourage the transfer of goods from road to rail and will welcome planning applications, which seek to improve rail use for this purpose.

**TRN 8 - Use of River Thames**

Planning applications which involve the increased use of the River Thames for both freight and passenger transport will be supported provided suitable access is supplied and the environmental quality of the river and surrounding land uses protected.

**TRN 10 - Protection and Improvement of Public Transport**

The Council will support the provision of public transport by:

- using its powers in relation to the provision and management of local roads and car parking, and the control of development, so as to support the provision and operation of good public transport services, including measures to improve the reliability and enhance overall journey times of buses;
- seeking to ensure that all public transport services are responsive to the travel needs of the resident population and public services;
- resisting any reduction in the present levels of bus, underground and overground rail services in the Borough and press the relevant organisations to increase resources to provide higher quality services;
- supporting new and existing public transport schemes provided that they show a clear balance of advantage to local residents and that any adverse impact on the environment is minimised;
- supporting initiatives which help improve the environment of bus stops, bus and rail stations, railway embankments and bridges;
- supporting and facilitating the introduction of bus priority lanes and traffic management measures to give priority to buses;
- supporting initiatives to combat crime or fear of crime in relation to public transport provision.
- encouraging the provision of public transport and travel information and signage throughout the Borough



**TRN 11 - New Rail Schemes**

The Council supports in principle all rail improvement schemes, subject to a clear balance of advantage to Lewisham residents and that the details show an acceptable impact on the local environment.

**TRN 13 - Transport Interchange**

The Council will work with the various operators and other landowners to improve interchange facilities between the different modes including buses, pedestrians, cyclists, taxis and minicabs where appropriate and between the two rail stations at Catford.

**Cycling and Walking****TRN 14 - Cycle Parking**

The Council will negotiate with applicants for new development to make provision for cycle parking in accordance with approved standards.

**TRN 15 - Provision for Cyclists and Walkers**

New development, including transport interchange, should make good provision for users and visitors to cycle or walk to and from the development including convenient, safe and secure cycle parking and changing facilities in developments.

**TRN 16 - Developing Pedestrian and Cycle Networks**

The Council will implement the Strategic Cycle Network and the Strategic Walking Routes and develop a network of safe, convenient and pleasant pedestrian and cycle routes linking with each other, bus and rail networks, open spaces and the main centres of activity in the Borough including journeys to school and to town centres.

## **Road Planning**

### **TRN 18 - The Road Hierarchy**

The Council will manage the use of roads in the Borough by establishing the road hierarchy: consisting of Strategic Roads, London Distributor Roads, Local Distributor and Local Access Roads.

### **TRN 19 - New Road Building and Improvements**

The Council will only support new road schemes and improvements to existing roads which are consistent with the needs of public transport operators, cyclists, pedestrians, safety requirements and traffic restraint objectives or local planning objectives and which allow traffic to be reassigned from unsuitable roads in the road hierarchy.

### **TRN 20 - Improving Road Safety**

The Council will take measures to reduce the number and severity of road accidents in the Borough. Developers may be required to make a financial contribution to such measures in appropriate circumstances.

### **TRN 21 - Traffic Management**

The Council will introduce traffic calming schemes and measures on the road network and in adjoining areas so as to:

- reduce traffic to achieve the role assigned to roads in the hierarchy;
- allocate road space to essential traffic and environmentally friendly modes of transport;
- reflect the requirements of land uses along the road, in terms of access, essential movement and environmental needs;
- in residential areas, reduce motorised traffic and improve the environment for residents;
- take account of the needs of public transport operators.

### **TRN 22 - Home Zones**

The Council supports the principle of Home Zones and 20 mph Zones and will investigate the experimental introduction of such and similar traffic management schemes so that optimum solutions can be found.

## **Parking Control**

### **TRN 24 - Car Free Residential Development**

Residential conversions without parking provision may be acceptable in areas with very good public transport accessibility and where developers can demonstrate that the development will have no adverse impact on on-street car parking.

### **TRN 25 - Off-Street Parking for Residential Conversions**

The Council will not require off-street car parking unless it is considered necessary to protect the local environment, including problems caused by on street car parking or pedestrian safety. In Conservation Areas no off-street parking will be permitted in front gardens. Exceptions may be made on a personal basis only for people with disabilities.

### **TRN 26 - Controlled Parking Zones**

The Council will keep under review the existing Controlled Parking Zones (CPZs) and will consider introducing new CPZs particularly in and around town centres, railway stations and other high traffic generating land uses. Developers whose proposals may adversely affect the on-street parking situation may be required to contribute to the introduction of a CPZ.

### **TRN 27 - Car Parking Standards**

The Council will normally require development to make provision for off street parking in accordance with the Council's standards. Exceptions may be made for people with disabilities and for residential development within Sustainable Living Areas having regard to the level of public transport accessibility

### **TRN 27A - Dual use of Private Car Parks**

The Council will negotiate with developers for the public use of private commercial car parking spaces in the Major and District Town Centres.

### **HSG 13 - Sustainable Living Areas- Deleted from the UDP**

## **Lewisham's Air Quality Policies**

Air quality considerations relating to land use and its development are a material planning consideration. In determining a planning application, local planning authorities should consider the development's likely effect, not only in terms of the air pollution it may cause directly, but also in terms of any increase or decrease in traffic it generates.

Land use planning as expressed throughout the Lewisham UDP aim to contribute to the long-term reduction of air pollution. This can be achieved, for example, through the location of trip-generating facilities close to public transport links and the encouragement of higher density residential development and mixed-use development, where appropriate. All of which can reduce the need for primarily road transport and may result in a reduction in air pollution

Any development being proposed within the AQMAs that is potentially polluting or will significantly increase the number of vehicle trips will need a detailed Air Quality Impact Assessment.

### **London Councils Air Quality and Planning Guidance**

Lewisham Council officers follow the procedures in the "London Councils Air Quality and Planning Guidance", which helps to ensure consistency in the approach to dealing with air quality and planning in London. The guidance was last revised in January 2007 and endorsed by the London Councils Transport and Environment Committee (TEC) on 17th October 2007.

### **PPS23 – Planning and Environmental Health**

Government guidance makes it clear that the planning system has a distinct role to play in Environmental Health, in conjunction with and complementary to, the Environmental Health system.

### **Dealing with Planning Applications**

AQMAs and development are often perceived to have conflicting aims. In particular, AQMAs located within urban areas, town centres and along congested streets, conflict between air quality considerations and the need to use brownfield sites for development will arise.

Planning developments on brownfield sites in town centres can reduce the need to travel if part of a mixed-use development, or housing is close to employment opportunities. In addition, developers may be willing to fund mitigating measures for air quality improvements or monitoring equipment as part of Section 106 agreements.

The designation of AQMAs do not, in themselves, seek to hinder new development. In dealing with planning applications, consideration should be given to the site and area characteristics. Some schemes may be more sensitive to air pollution than others, for example childrens' play areas and housing should be located away from very busy roads where air pollution levels are highest. The specific location and building design can be used to minimise the adverse effect of air pollution such as the introduction of controlled air conditioning systems for development located in areas with high levels of air pollution. .

Planning applications requiring an Environmental Statement under the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 should include an assessment of the proposed development's effects on, among other things, air quality.

## **Air Quality Impact Assessments**

There is a requirement for certain types of project to be subject to Environmental Impact Assessment (EIA) before planning permission is granted. If the site is in an AQMA or the impacts are likely to affect an AQMA the EIA must analyse in detail the extent of the impact and any mitigation measures to reduce the impact.

For other development, where local planning authorities consider a development could lead to an adverse impact on air quality, an Air Quality Impact Assessment and/or Traffic Impact Assessment covering air quality issues will be required.

The overall outcome of an air quality assessment is to determine whether the development will have a significant impact on air quality or whether the existing air quality environment is unacceptable for the proposed development.

The three main ways a development may have a significant impact are:

1. If the development is likely to cause a deterioration in local air quality (i.e., once completed it will increase pollutant concentrations)
2. If the development is located in an area of poor air quality (i.e., it will expose future occupiers to unacceptable pollutant concentrations)
3. If the demolition/construction phase will have a significant impact on the local environment (e.g., through fugitive dust and exhaust emissions). The London-wide Best Practice Guidance should help reduce emissions from this stage of a development.

Although there is no single definitive method for undertaking a detailed air quality assessment, methods used must be appropriate to the location and scale of the development and properly validated. It is vital that air quality assessments take into account the cumulative air quality impacts of approved developments. The 'baseline' condition should be compared with the situation with the development in place.

## **Section 106 Planning Obligations**

When determining planning applications, it may be appropriate to impose conditions to mitigate the impact of emissions. Where this impact can not be adequately mitigated by condition (i.e. where there remains a residual impact), or where the development is located in or adjacent to areas where air quality objectives are unlikely to be met, the LPA should enter into a S106 planning obligation. Proposed developments in an AQMA will attribute to Annex 1 of Planning Policy Statement 23 also describes how section 106 agreements can be used to require developers to provide assistance or support to enable local authorities to implement any actions in pursuit of their Air Quality Action Plan.

This is already standard practice within many London Boroughs and these boroughs seek planning obligations from developers to contribute to their borough wide air quality monitoring programmes and also implementing their Air Quality Action Plans. The London Borough of Greenwich is a leader in best practice for air quality and have written a Draft Supplementary Planning Document for Section 106 planning obligations. Currently they charge a set amount per unit for residential developments with more than 10 units or per square metre for commercial developments over 500 m<sup>2</sup>.

S106 planning obligations can also be considered in the following cases:

- Persuading companies to use clean fuel fleets of vehicles;
- Promoting improvements in public transport, walking and cycling
- Specifying the number of parking spaces, and their size;
- Restricting or prohibiting the use of specific classes and types of vehicles as well as monitoring the maintenance and emissions testing of the fleet;
- Targeting on the proportion of employee trips made by public transport and other alternative modes of transport;
- Encouraging companies to operate Environmental Management Systems
- Requirement for operators/occupiers to monitor emissions and concentrations of specified pollutants at off site locations;
- Controlling air quality impacts during the construction phase

## **Sustainable Design and Construction**

The Mayor of London published a Supplementary Planning Guidance (SPG) on Sustainable Design and Construction in May 2006. Many Councils across London have already adopted SPGs for Sustainability. The SPG outlines the Council's Planning policy on sustainable development, and to explain how that policy is to be implemented.

Proposals involving major developments will normally be expected to include with a planning application a sustainable development statement, setting out the steps that would be taken to achieve follow sustainability principle. Major developments are considered to be those which involve more than 10 dwellings, or where the floorspace is more than 1,000 sq metres, or where the development is on a site of more than 1 hectare.

This statement should quantify as far as possible, the resulting environmental benefits/ disbenefits of the scheme. For example the proposal could set out information on the anticipated energy consumption, in comparison to a similar conventional alternative scheme. In order to facilitate the preparation of this statement pre-application checklists accompany planning application forms, which will provide a framework for developers to prepare and submit their statements.

It is vitally important that major developments do not contribute further to poor air quality within an AQMA.

## 4.7 Action 17: Measures to reduce emissions from construction sites

### Action 17 - Measures to reduce or eliminate emissions from commercial construction sites

- The Council will expect developers to adhere to Lewisham's Code of Construction Practise which details dust minimisation measures to be used on site
- The Council will ensure that the adverse effects of emissions of particles, dust and gases can be removed or mitigated on site to an acceptable level for all developments
- The Council will require developers to carry out continuous monitoring and inspection of building activities before, during and after the construction phase for some developments where the impact on local air quality is marked. This can be brought about through 106 agreements
- Developers will be expected to devise a strategy to target the emissions from vehicles on site and will be encouraged to use alternatively fuelled vehicles and do fewer vehicles journeys during the construction phase.

There are a wide range of emission sources, which contribute to PM<sub>10</sub> concentrations in the UK. They can roughly be divided into:

- **Primary particles** – Primary particle emissions are derived directly from combustion sources, including road traffic, power generation and industrial processes. These particles are normally less than 2.5µm in diameter.
- **Secondary particles** - Secondary particles are formed by chemical reactions in the atmosphere and are comprised principally of sulphates and nitrates. These particles are normally less than 2.5µm in diameter.
- **Coarse particles** - Coarse particles are comprised of emissions from a wide range of sources, including re-suspended dusts from road traffic, construction works, mineral extraction processes, wind-blown dusts and



soils, sea salt and biological particles. These particles are greater than 2.5µm in diameter.

It is important to consider the contribution to PM<sub>10</sub> concentrations from different sources as this will help focus the steps to be taken when policy documents are produced to address this pollutant. In general, the coarse particles remain the dominant contribution, which is hardest to control. Future legislation and controls on industrial processes may control other sources. Coarse particles are seen as the fraction where levels are not likely to decline and therefore will require some additional action to be taken to reduce levels overall.

With this in mind, the principal focus of Local Air Quality Management should be towards the control of emissions at a local level. It is therefore important that the review and assessment process identifies the contribution of local emission sources, so that the effectiveness of control policies or action plans can be evaluated.

## **Lewisham's Construction Boom**

An on-going scheme of large scale development has taken place in the north of the Borough and, as such, particulates from the construction phase of the works may have contributed to the high levels of pollutants in the immediate area.

With this in mind a series of detailed steps have been taken to substantially reduce the generation of dust and particulates from the sites through effective planning and management and through the introduction of effective mitigation measures on site.

To ensure effective dust control and adherence to planning obligations, a Code of Construction Practice has been produced and implemented via the planning route and used over the last ten years to deal with such eventualities. Recently a more stringent standard of air quality control has been adopted by the 'London Councils' in a best practice guidance document. This document includes quantitative measuring approaches to monitoring. Lewisham Council uses this document where large developments are proposed along with its own code of construction practice.

## **Lewisham's Code of Construction Practice (CoCP)**

The CoCP is intended to give guidance to contractors on the measures that the London Borough of Lewisham expects them to take to minimise the environmental impacts of their work on the local community.

The Council has specific powers under the Control of Pollution Act 1974 and the Environmental Protection Act 1990 to deal with noise and environmental nuisance. The expectation under the legislation is that “best practicable means” (BPM) will be used to prevent nuisance occurring, therefore the Council requires all contractors to apply BPM to their work programme and techniques, irrespective of the size of the demolition/construction work being undertaken.

Adherence to the Code demonstrates a commitment to BPM by the contractor/developer and should subsequently minimise the environmental disturbance to local residents, reducing the need for enforcement action.

The Code aims to address the main sources of dust and particulate production and has been defined into the following areas:

### **Operation**

Where dust and air pollution are likely to affect local residents the contractor shall be held responsible for ensuring that: -

- all plant and equipment, including any on hire, is checked to ensure it is in good working order and conforms to the manufacturers' standards. Equipment is to meet statutory emission standards. Defective items are not to be used.
- effective methods of work are to be adopted to prevent dust from becoming airborne at source. As dust is harder to suppress once it has become airborne, careful consideration at the design stage is required to the enclosure of fixed plant, addition of moisture, or provision of effective exhaust ventilation and filtering.

### **Monitoring**

Where local residents are likely to be affected all working methods that minimise dust and air pollution impacts are to be used at all times. The effectiveness of all measures shall be monitored frequently by the main contractor, reviewed at least weekly and may be subject to inspection by officers.

## Dust

Watering down of the area should be carried out where necessary to minimise dust transfer into neighbouring premises.

Stockpiles of material shall be damped down, or otherwise suitably treated, to prevent the emission of dust from the site. Stockpiles should be planned and sited to minimise the potential for dust generation. The handling of material should be kept to a minimum and when deposited onto a stockpile it should be from the minimum possible height.

Dust pollution shall be minimised during demolition by: -

- the complete screening, if practicable, of the building or structure to be demolished with debris screens or sheets
- control of cutting or grinding of materials on the site.
- mixing of large quantities of concrete or bentonite slurries in enclosed/shielded areas.

Skips and removal vehicles shall be properly covered when leaving the site. Materials should be handled in such a way so that they do not give rise to excessive dust. Watering of rubble chutes shall be undertaken where necessary to prevent dust emission.

The contractor must ensure that the area around the site, including the public highway, is regularly and adequately swept to prevent any accumulation of dust and dirt. The use of wheel cleaning facilities and road sweeping equipment may be required.

Any plant used for the crushing of materials must be authorised by a local authority under the Environmental Protection Act 1990 Part 1 (Prescribed Processes). All works shall be carried out in accordance with the conditions of such an authorisation. Where plant is used to recycle materials, the appropriate licence from the Environment Agency shall be obtained. The process operator should notify the local authority prior to the movement of the plant on to the site.

## **Sandblasting**

- The work area shall be close-sheeted to reduce dust nuisance from grit. Routine checking is required to ensure that the sheeting remains sound or sealed during the operation. Particular attention shall also be given to the working platform to ensure that it is properly sheeted or sealed to contain dust.
- Non-siliceous grit shall be used to avoid long term irreversible lung damage from silica dust.

## **Air Pollution**

Burning of materials on the site will **NOT** be permitted

The contractor must take all necessary precautions to prevent the occurrence of smoke emissions or fumes from the site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into residential areas. In particular, plant should be well maintained and measures taken to ensure that it is shut down in the intervening periods between work or throttled down to a minimum.

Emphasis should be placed on the following to minimise the risk of air pollution:

- Use processes that do not generate hazardous fumes and/or hazardous dust.
- Ensuring that airborne hazards do not escape from the site to affect members of the public and surrounding environment.

## **Ancillary Site Activities**

Wherever practicable, all loading and unloading of vehicles will take place on site. Lorries that cannot immediately enter or leave the site must switch off their engines.

As can be seen from the above Code of Construction Practice, the Council is addressing the issue of dust and particulate production on site during the development stage when effective management of developments ensures that emissions are kept to a minimum.

In addition to the above further measures may be considered to control emissions further, especially for larger developments. The code is provided to constructors and can be downloaded from the Lewisham Council website<sup>6</sup> or requested through the Planning or Environmental Health departments.

### **London Best Practice Guidance: The control of dust and emissions from construction and demolition**

Following the commitment within the Mayor's Air Quality Strategy, the Greater London Authority (GLA) and London Councils have produced "Best Practice Guidance" to control dust and emissions from construction and demolition. The Guidance, published in April 2007<sup>7</sup>, is used to inform the planning process within London boroughs; assisting developers in understanding the methods available to them and what London boroughs might expect. The Guidance will be reviewed regularly, in order to update new best practice in dust and emissions management.

The overarching aim of the Guidance is to protect the health of on-site workers and the public and to provide London-wide consistency for developers. It has been developed to assist architects, environmental consultants, developers, local authority officers and any parties involved in the construction process. Also this guidance can be downloaded from the Council website.

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<sup>6</sup> <http://www.lewisham.gov.uk/Environment/Pollution/PollutionNoiseDocument.htm>

<sup>7</sup> <http://www.lewisham.gov.uk/Environment/Pollution/AirPollution/AirQualityPlanning.htm>

## **4.8 Action 18: Measures to reduce emissions from housing**

### **Action 18 - Measures to reduce emissions from domestic buildings**

- **The Council will aim to deliver sustainable energy in Lewisham**
- **The Council will encourage domestic composting and recycling of waste to reduce the need for bonfires**
- **The Council will work towards the re-designation of the Smoke Control Zone.**

Climate change is now high on the political agenda. Our climate is changing, and these changes are predicted to become more pronounced over the coming decades, leading to major challenges for communities everywhere. We must cut emissions of greenhouse gases in order to minimise future climate change. This means reducing the amount of energy we consume and rapidly increasing the amount of energy we source from renewables.

Further information about Lewisham's climate change adaptation plans can be found in Lewisham's Climate Change Strategic Framework.

### **Delivering sustainable energy in Lewisham**

The Council adopted an Energy Policy in 2001 to steer the Borough into an era of lower energy usage, costs and conversion to renewable energy. Subsequent to this the Council drafted an Energy and Carbon Reduction Strategy in May 2007, which it is anticipated will be finalised Spring 2008. The key objective of the draft strategy is to reduce Lewisham's impact on global climate change through lowering energy consumption and associated carbon dioxide emissions.

Promoting sustainable energy is a challenge that requires action at the local as well as national and international level.

#### **Strategic Objectives of the Draft Strategy**

- 1. *Cut Lewisham carbon dioxide emissions by 60% by 2025***

The strategy will follow the energy hierarchy, aiming to use less energy through energy efficiency, to use renewable energy and through the efficient use of fossil fuels, in particular by the efficient generation of electricity.

This will be achieved by all the policy initiatives detailed under policy points 2 to 10. A significant start has been made by buying renewable electricity since 2000, which currently offsets approximately 35% of borough generated carbon dioxide.

**2. *Create housing conditions that provide affordable warmth, especially for those on low income, through the development of practical initiatives to tackle problems associated with poor heating and insulation.***

The Borough aims to seek an end to fuel poverty for vulnerable householders in Lewisham by 2010. As currently defined, this means that by 2010, we will strive to ensure that no older households, no family with children, and no householder who are disabled or have a long term illness need risk ill health due to a cold home.

The most serious problem resulting from exposure to low ambient temperatures (caused in part by cold, damp homes) is excess winter deaths.

**3. *Ensure use of the most energy efficient technology for design, installation and retrofit work in the Council's operational buildings and housing stock.***

Council buildings including schools are responsible for the majority of the Council's CO<sub>2</sub> emissions. Efforts to improve energy performance must therefore focus on its corporate building stock. The council purchases electricity and gas for 3,839 sites, including council offices, schools, housing and street lighting, in total supplying some 188.63 million kWh of electricity and gas.

It is imperative that the council improves the energy performance of its building stock in order to lead by example and stimulate action for a low carbon borough.

**4. *Significantly increase the proportion of energy generated from renewables or environmentally friendly sources.***

The take up of renewables is very low at the moment. Few renewable technologies are commercially cost effective at present or as cost effective as energy efficiency. Many struggle to pay back within their lifetime. Increased demand and increased skill levels should bring down the costs over time. However, renewables have an important role to play in meeting the UK target of a 60% reduction in carbon emissions by 2050. To meet this somewhere in the region of 30 to 40% of our electricity generation will need to come from renewables.

**5. *Actively promote energy efficiency issues and increase public awareness of energy use and its effect on the environment.***

The Energy White Paper, stated that the cheapest, cleanest, and safest way of addressing the Government's energy policy objectives is to use less energy. In order to improve energy efficiency it is necessary to advise and educate the public on the need and benefits of energy efficiency and to give guidance on how to implement energy efficiency measures. The aim is to encourage the public to implement energy efficiency measures on their property and to change their behaviour by reducing unnecessary energy consumption.

**6. *Monitor energy consumption in council buildings, periodically checking this consumption against benchmarks.***

In order to effectively target activity to reduce energy consumption and carbon dioxide emissions in the borough, it is important that we have accurate information about the sources of emissions. In addition, we will be unable to access whether policies to reduce emission have been successful unless we have the means of accurately measuring emissions. For this reason, accurate measuring and monitoring of energy consumption and CO<sub>2</sub> emissions is essential to all climate change strategies and is a core commitment under the Nottingham Declaration.

**7. *Provide a service to enable energy to be purchased at the lowest economic and environmentally friendly rate and periodically review purchasing tariffs.***

In 2005, the UK spent £85.7 billion on energy, of this the domestic expenditure was worth £20.5 billion. The average household now spends £900 per annum on gas and electricity bills. Furthermore energy represents 3.2% of GDP. Lewisham has, and will continue to ensure that it secures the best prices for energy in terms of economic and environmental costs.

**8. *Ensure a comfortable working environment for staff, where temperature and humidity do not compromise productivity.***

This section of the policy will:

- Ensure the council's educational establishments have sufficient ventilation and heating systems to facilitate learning
- Ensure the council's workplaces have sufficient ventilation and heating to encourage high productivity

**9. *Promote and facilitate the use of sustainable modes of transport.***

Nationally transport carbon dioxide emissions increased by 4.5% from 1990 to 2000 and under business as usual would further increase by 15.5% during the next ten years. Road traffic and associated CO<sub>2</sub> emissions continue to grow year on year and this is a key concern for the national efforts to reduce CO<sub>2</sub>



emissions – both the government’s Climate Change and Transport Strategies aim to reduce this growth but are failing to do so.

**10. *Work in partnership with other authorities and organisations in implementing this policy.***

Lewisham can only take forward a sustainable approach to energy and thereby reduce carbon emissions, if all stakeholders work together to implement low carbon solutions.

## **Waste**

The Business Regulatory Section of the Council encourages composting and recycling as apposed to bonfires which spread particulates as well as other pollutants. The department provides information and leaflets about the alternatives to bonfires and in extreme cases will take enforcement action where bonfires are causing a nuisance and/or are detrimental to the local environment.

## **Smoke Control and Bonfires**

Lewisham was declared as a Smokeless Zone back in 1976. However, due to boundary changes and redevelopment it is increasingly difficult to enforce the provisions that control the burning of solid fuel. In addition, more and more people are using open hearths and wood burners.

This leads to the assumption that a substantial overhaul of the Smoke Control Zone is required. To this end the Council will work towards the re-designation of the Smoke Control Zone by the end of 2008.

## **4.9 Action 19: Reduce Emissions from Industrial and Commercial Premises**

### **Action 19 - The Council will continue to control the release of emissions from Industrial and commercial premises**

- **The Council will continue to inspect authorised processes and liaise with the Environment Agency to control emissions to air**

#### **Industrial Point Sources**

Many of the emissions to the atmosphere resulting from industrial processes and the combustion of fossil fuels are not uniformly spread across urban areas but concentrated at particular points.

These point sources include central heating plants serving large groups of buildings such as hospitals, and boiler plants supplying process heat to industry. They also include industrial processes.

Both the Environment Agency and the Council regulate industrial sources under the Pollution Prevention and Control Act 1999 and Environmental Protection Act 1990.

The Environment Agency is responsible for the largest industrial processes (IPPC/ Part A1 processes), whilst the Council is mainly responsible for smaller Part B and A2 processes.

#### **Part A processes**

There is one a Part A1 process in the Borough: the incineration process operated by South East London Combined Heat and Power Ltd (SELCHP) in the north of the Borough.

South-East London Combined Heat and Power Limited (SELCHP) is a waste-to-energy plant in the London Borough of Lewisham. The plant is fired by municipal solid waste (MSW) collected by the boroughs of Lewisham and Greenwich, as well as waste from other sources. SELCHP is capable of handling 420,000 tonnes of waste per annum and produces enough electricity to power around 48,000 homes

The project started in 1986, as an initiative by the three boroughs of Greenwich, Lewisham, and Southwark. The boroughs were seeking an

alternative means of disposal for their domestic and commercial waste, as the landfill sites they were using were reaching capacity and costs were expected to rise. In 1988, they formed a consortium to promote their ideas and bring together both public and private interests. The consortium members included the three boroughs, the Regional Electricity Company, and waste-to-energy design, construction and operation companies. Construction of the facility commenced in mid-1991 and was completed in early 1994.

Further to concerns raised by local residents on the SELCHP possible effect on their health, particularly in relation to the discharge of dioxins, and on local wildlife, an **Health Impact Assessment (HIA)** was published in June 2005<sup>8</sup>.

The report concluded that SELCHP contribution to air pollution and traffic is “small and must be set within the context of other sources of these two factors and a wider range of health determinants such as socio-economic disadvantage. The HIA has found no immediate obvious effect of the SELCHP plant on the health of local people. However, if there were a small effect – or a long term effect - it is unlikely that this would show up in small area statistics unless many years data, controlled for exposure levels, could be collected.”

The releases to air/water/land from these SELCHP are periodically assessed by the Environment Agency along with the impact on the environment and any risk to health. Permit has been granted for this incinerator, which can only happen if the Environment Agency has assessed the impact as insignificant.

From the consultation carried out following the publication of the Revised Draft Action Plan it emerged the concern that PM<sub>2.5</sub> emissions from SELCHP are currently not being monitored. The Environmental Health group will liaise with the Environment Agency to investigate this issue and possible actions.

## **Part B processes**

Lewisham has only a few authorised processes and therefore the contribution to the background levels of air pollution from these processes is minimal. Information on Part B processes in Lewisham are provided to DEFRA on a yearly basis in order that their emissions can be included in the London Air Emission Inventory (LAEI) database.

The majority of Part B processes in the Borough are dry cleaning installations and petrol filling stations. Lewisham will continue to carry out regular and detailed inspections to ensure that emissions from Part B processes do not exceed national air quality objectives and any emissions produced are minimised as far as is practicably possible.

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<sup>8</sup>[http://www.lewishampct.nhs.uk/document\\_view.php?DID=00000000000000000640](http://www.lewishampct.nhs.uk/document_view.php?DID=00000000000000000640)

## **Reduction of greenhouse gas emissions from the Council's use of fuel and energy**

### **Proposed targets**

- Cut Lewisham carbon dioxide emissions by 60% by 2025
- Working towards being carbon neutral

The Council will follow the Mayor for London's Energy hierarchy, aiming to use less energy through energy efficiency, to use renewable energy, and through the efficient use of fossil fuels and by the efficient generation of electricity.

### **Actions**

A significant start has been made by buying renewable electricity since 2000, which currently offsets approximately 35% of borough generated carbon dioxide. The borough has also seen the installation of renewables on a number of sites across the borough.

Lewisham is also implementing the Mayor of London's 20% rule, whereby proposals for major developments with a floor space of 1000m<sup>2</sup>, or ten or more residential units are required to incorporate on-site renewable equipment to reduce estimated CO<sub>2</sub> emissions by at least 20%.

As recommended in the London Community Heating Development Study, the borough is currently investigating the possibility of SELCHP providing district heating to the proposed Covoys Wharf development.

The Sustainable Resources Group uses System Link software to monitor energy use in all council properties including schools (except those run by other organisations due to Trust status etc). Energy use is monitored on a regular basis and anomalies and high usage are flagged up and dealt with as they occur.

108 energy management surveys have been carried out and investment is on going to reduce the energy bills and cut CO<sub>2</sub> , following recommendations made.

A utility meter survey has been completed of 360 buildings in order to improve invoice management and leading towards remote electronic metering thereby identifying opportunities to cut CO<sub>2</sub> .

## **4.10 Action 20: Measures to increase the awareness of air quality issues**

**Action 20 – The Council will continue to assess the current air quality levels across the Borough and increase awareness on air quality issues**

- The Council will continue to monitor the air quality in Lewisham
- The Council will review from time to time the Borough's monitoring strategy to reflect the findings of the air quality review and assessment.
- The Council will continue to work with other neighbouring local authorities on air quality issues and participate in cluster group meetings/technical conferences where appropriate to advance knowledge.
- The Council will disseminate air quality information to the general public.

### **The need to expand Lewisham Air Monitoring Network**

As discussed in Section 3.1, the existing monitoring network in Lewisham consists of two continuous monitoring stations in Catford and New Cross Gate. NO<sub>2</sub> and NO<sub>x</sub> are monitored at both sites, while PM<sub>10</sub> is only monitored at New Cross Gate.

Both sites are part of the LAQN (Section 3.4). Real-time monitoring data and further site information can be accessed from the LAQN web-site<sup>9</sup>. Maps showing the location of the sites are attached in the Annex.

Lewisham has a duty to carry out air quality monitoring under the Environment Act 1995 and the Air Quality Strategy. Air quality monitoring provides the scientific background necessary to validate any modelling studies for review and assessment reports, and for air quality assessments submitted in support of planning applications for new developments. This ensures that any conclusions reached are accurate and reliable indications of the pollutant

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<sup>9</sup> <http://www.londonair.org.uk/london/asp/lahome.asp>

concentrations found in each Air Quality Management Area. In addition the Lewisham Sustainable Development Select Committee has recently urged that the number of existing monitoring stations should be increased.

Lewisham does not have a diffusion tubes monitoring network. This is a cost-effective way to measure NO<sub>2</sub>, which is being used by the majority of the London Boroughs.

A passive monitoring network for NO<sub>2</sub> including between 7 and 10 sites (and the co-locations of three tubes with the continuous monitoring station at New Cross Gate to provide more robust results) is due to be established by March 2008 at the cost of around £2K per year (the officer time spent on managing the network will be approximately 2-3 days per month). Further sites could be established in future if funding and staff resources are available. Schools and local communities could also be involved in monitoring projects with the additional educational and engagement aims.

The Environmental Health group is also seeking external funds to install at least 1 new fixed continuous monitoring station to provide real-time measurements of nitrogen dioxide and particulates (PM<sub>10</sub> or PM<sub>2.5</sub>) by the end of 2008. The installation will cost approximately £30k. Running costs would be £10k per annum.

Extra funds (£10k) will be necessary from 2008 to cover for running costs of the existing monitoring station in Catford, which is being de-affiliated by the national monitoring network managed by DEFRA due to budget re-allocation.

### **Partnership Work – The South London Cluster Group**

As air pollution does not consider Borough boundaries it is essential that neighbouring authorities work together to achieve the same goal. London local authorities set up cluster groups several years ago so that neighbouring authorities could meet on a regular basis to discuss air quality.

Since 1998, officers from the Council have been attending regular meetings with neighbouring authorities to discuss air quality, AQMAs and action plans.

In addition, detailed discussion have also taken place with the adjoining Boroughs of Southwark and Greenwich as it is recognised that any action plan will need to be co-ordination between these Boroughs for it to be workable. In theory, any changes implemented in Greenwich are likely to have knock-on effects in Lewisham and, in turn, on Southwark. At the action plan stage co-ordinating the approach to be taken with regard to proposals has been important to ensure that action plans for all authorities are consistent and effective.

The LBL Environmental Health team is actively involved in schemes implemented through the South London Cluster Group. One of the Cluster Group main achievements is the AirTEXT scheme.

### **AirTEXT**

AirTEXT is a unique air quality information service for people who live or work in London and who suffer from asthma, emphysema, bronchitis, heart disease or angina. These people may be affected by higher than normal levels of air pollution. AirTEXT is designed to alert them to pollution so that they can take some of the simple steps that help reduce the likelihood of any impacts. This includes taking the inhaler or angina spray, taking extra doses if symptoms worsen, and avoiding strenuous outdoor activity on polluted days.

Those who sign up for the scheme receive a messages either between 6-7 p.m. on the evening before or between 7-9 a.m. on the morning of a day when elevated air pollution is forecast. Depending on how high pollution levels are forecast to be, there are various simple steps to take to reduce the likelihood of any impact. The messages will provide advice. The service is free and available for residents of partners Local Authorities within London. Lewisham and Councils from South Cluster Group are amongst the partners.

The South Cluster Group is planning to further publicize the scheme. Funding will be necessary to guarantee the Lewisham area is also targeted through the campaign.

The Environmental Health team is investigating the possibility to extend the visibility of the Air-Text scheme through initiatives such as the inclusion in local radio weather forecasts, or involvement of local schools.

### **Providing Air Quality Information, raising awareness and involving the local community**

Lewisham has in the past and currently provides, information and raises awareness on air quality issues in the following ways:

- The Lewisham Council website provides information on the review and assessment process and current air quality levels.
- Leaflets have been produced on air quality, air pollution sources, bonfires and construction site emissions.
- Teaching material and presentations are given to schools to integrate air pollution issues into the national curriculum.
- 'People's Day' is held each July and promotes services across the Council in a fun and exciting way.

Joint work with other Council Departments, neighbouring local authorities and the South Cluster Group is being strengthened in order to implement and coordinate campaigns and events aimed to raise awareness on air quality and related issues such climate change.

The Council website can be further improved to facilitate access to and exchange of information on air quality, and the provision of feedback from members of the public.

The Environmental Health team is investigating the feasibility of implementing a number of schemes involving students, commuters, residents and local community groups etc.. External funding through the Air Quality Grant will be requested for implementing some of these schemes.

One schemes under investigation – in partnership with the Energy Efficiency team and the IT Support teams – involves the possibility of having pop-up messages on Council employees computers to provide information such as air pollution forecast, eco-driving tips, simply a reminder to switch off electrical appliances. If successfully implemented the scheme could be extended to other organisations.



## **4.11 Action 21: Procurement**

### **Action 21 - The Council will implement procurement measures to reduce overall pollution levels across the Borough**

- **The Council will continue the Council's commitment to Sustainable Procurement to ensure that its suppliers address the need to travel to ensure that the impact of transportation on the environment is kept to a minimum**
- **The Council will ensure that specifications for contracts require suppliers to demonstrate how they will adhere to the above policies and reduce the transport they use**
- **The Council will encourage the use of the Council's website as a way of customers and clients accessing its services without travelling**

The Council currently contracts with private companies to carry out a range of major services and activities including information technology, catering, parking control, estate, and parks grounds maintenance, building cleaning, highways maintenance, arboriculture, leisure management, housing management and care homes.

Each of these companies has a role to play in the reduction of emissions from the services they provide. In order to ensure that private companies and contractors take all reasonable steps to reduce emission that the Council itself has and will be taking, the Council has produced a Procurement Strategy to put in place a number of guidelines that must be followed and applied when procuring products, works and services.

The Borough recognizes and accepts its responsibility for integrating sustainability objectives within its working practices.

The Borough is committed to achieving value for money from its procurement process. However, it recognizes that the adverse environmental impacts of the goods or services it purchases now will contribute to social and economic costs in the future. Such future costs detract from the value derived from the money spent on providing those goods and services. As a large purchaser of goods and services, the Borough is committed to working with its suppliers to to reduce adverse environmental impacts where viable.

The green procurement philosophy can be simply summarised by the following key points: -

- buy or tender centrally for better quality and potentially at a lower price,
- buy 'green' by using recommended green product and material purchasing guides such as the Handbook of Sustainable Building and the Guide to Green Procurement.
- make products last longer through maintenance to extend their life and by re-cycling all unrequired goods.

## **Environmentally Responsible Purchasing - Key Policy Statement**

The key policy statement stated that the Council aims to deliver services that are resource efficient, that minimise the generation of waste and which contribute to a more environmentally, socially and economically sustainable society, whilst meeting current needs. This policy committed Lewisham to achieving continual improvement in its environmental performance by :

- identifying the environmental impacts of its services and working practices
- setting objectives to reduce those impacts and improve performance.

In 2006 the Sustainable Procurement task Force published "Procuring the Future" subtitled the Sustainable Procurement National Action Plan, the main aim of which is to make the UK a leader in sustainable procurement in the EU by 2009. Sustainable Procurement was defined as a process whereby organisations meet their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organisation, but also to society and the economy, whilst minimising damage to the environment.

The action plan identified three 'building blocks' to assess the council's progress and to plan future activities :

- adopting a consistent approach – the Flexible Framework
- setting and dealing with priorities
- Toolkit for Procurers

The Council will aim to meet the identified milestones to ensure that Lewisham stays on track to improve its performance in sustainable procurement by 2009.

Promoting the sustainable use of resources, by encouraging resource efficiency and waste minimisation

Suppliers and contractors will be expected to ensure that the delivery of contracts and services is undertaken as resource efficiently as possible. Information and advice will be provided to suppliers to support this process.

Introducing environmental performance management and monitoring into contract procedures.

The procurement process does not end when a supplier has been awarded a contract, or a product has been purchased. It continues through to completion of the work and final review. The achievement of agreed environmental performance outcomes would be monitored through the Council's normal contract monitoring and review process. Opportunities for continual improvement will be identified and incorporated through the review process. Information provided by suppliers in tendering exercises will be used to develop benchmark data against which actual performance can be judged and subsequent tendering exercises can be assessed.

In order to deliver on the above, the Council will require the following from suppliers:

- A commitment to inform Council staff of updates in technology, products and working practices that may have an impact on environmental performance.
- An agreement to report regularly on environmental commitments and performance to staff.
- An agreement to be open and frank about progress with environmental performance.

### **Integrating sustainable procurement into the council's procurement and purchasing standards.**

It is the Council's intention to achieve environmental best practice through the operation of its contracts. Procurement Group staff will be expected to develop specifications, tender requirements and contract criteria that promote and encourage innovation in delivery, including the delivery of enhanced environmental performance.

However, the degree of environmental performance achieved by any one contract will depend upon:

- The resources available and need to achieve value for money,
- available technology and working practices,
- the practicalities of developing more functional and performance-based specifications, and
- the EU procurement directives.

The Council will strive to work with suppliers to trial the use of products considered to have a better environmental performance. The Council recognises that its suppliers may have a greater understanding of the environmental impacts of products, services and working practices. To harness this, a process of supplier consultation will be set up to inform the drafting of contract specifications. Flexible criteria and requirements will be developed which provide opportunities for suppliers to present innovative, environmentally responsible solutions. There will include the opportunity to submit a variety of options, methods and prices to meet the specification within one tender.

The Council is responsible for serving the interests of the people of Lewisham and securing best value services. The Environmentally Responsible Purchasing Policy will be implemented to achieve long term value for money.

For example, if two tenders are put forward and one achieves a higher environmental performance at a higher cost than the other, then they will be assessed by considering both the short and long-term financial and environmental costs and benefits.

### **Forming partnerships with suppliers**

It is crucial that partnerships are formed with suppliers to ensure that the Council's goals are realistic, attainable and promote innovation. Suppliers will be consulted on the Council's environmentally responsible procurement policies and processes, with a view to achieving continual improvement.

The Council recognises that suppliers' resources are stretched and that unnecessary burdens should not be imposed on them. However, long-term competitive advantages and the potential for achieving cost-savings will reward suppliers who also adopt a commitment to improving their environmental performance. Increasing pressure on organisations to adopt environmental purchasing strategies, is likely to mean that a supplier who commits to responsible environmental management now will be able to state "I'm working on this already" when questioned by customers in the future.

The Council acknowledges that it has a responsibility for creating awareness and providing opportunities for suppliers in terms of sustainable procurement. The Guide to green procurement is an example of this.

Potential suppliers will be required to provide statements with their tender documentation about the environmental performance of the products and services they are providing to the Council. They will also be asked if they have been prosecuted for breaches of environmental legislation. Supporting documentary evidence may be requested from suppliers to substantiate their statements.

### **Supporting staff in the delivery of the Procurement policy**

This has been achieved by:-

- Providing supporting guidelines and resources, as appropriate, to allow effective implementation of the Policy.
- Regularly communicating progress on the implementation of this Policy and providing a mechanism for staff and suppliers to be consulted and provide feedback to the Council.
- Providing training and awareness raising tools.

### **Continually improving the Procurement and Purchasing Policy**

Progress in implementing the policy will be benchmarked internally across Directorates and externally with other local authorities and organisations.

The following elements will be benchmarked:

- Integration of environmental objectives into core corporate procurement functions.
- Communication of the Policy and guidelines to staff and suppliers in a clear, consistent and regular manner.
- Development of clear targets to educate suppliers and work with them on achieving environmental performance improvements,
- The inclusion of environmental objectives in contract specifications and environmental performance criteria in supplier appraisals.
- Development of feedback mechanisms for staff and suppliers to ensure continuous improvement.

### **Promoting the use of environmental preference methods**

As previously referred to the Guide to Green Procurement has been produced to assist Lewisham staff, contractors and suppliers to incorporate environmental criteria into specifications. The guide is broken down into sections and covers a range of products, services and hazardous products. Each section includes information on the councils policy; eco-labels; environmental significance; recommended environmental preference selection procedure; inclusions for tender documents; cost implications; internal contact; and information regarding product recycling.

Effectively maintaining goods and assets during their usable life.

In some places it is viewed that you buy a product, you use it and when it fails, you buy a new one.

Although it is possible that this is the most cost-effective thing to do in some instances a little, often low cost, maintenance can extend a product's life, sometimes indefinitely.

Maintenance of products with moving parts such as printers, fax machines and photocopiers as well as vehicles, pumps, motors and boilers also improves safety.

### **Aiming to re-use, recycle or dispose of all end-of-life products**

Effective recycling or disposal arrangements should be considered and initiated at the time of purchase of all goods, wherever possible.

The following principles provide the broad framework for implementing the Environmentally Responsible Purchasing Policy. The application of each principle to each procurement exercise will vary according to the type and method of procurement: -

- Quality, price and anticipated performance are generally recognised as the factors that lead to environmentally responsible purchasing, that is Environmentally Responsible Purchasing = Price + Environmental quality + Performance
- Suppliers that are striving to achieve the same environmental standards, as the Council should be sought and those already prosecuted under environmental legislation should be avoided.
- The Council's Guide to green procurement should be referred to for each procurement or purchasing decision.
- Key corporate environmental objectives which all procurement and purchasing should help achieve include:
  - Reducing energy use and improving energy efficiency and conservation.
  - Conserving both renewable and non-renewable resources and promoting conservation by using recycled materials.
  - Minimising the generation of wastes by reducing, reusing, recovering and recycling resources.
  - Preventing pollution by avoiding the use of hazardous products and materials.
  - Limiting and reducing the use of packaging.
  - Minimising the environmental impact of transport and travel.
- Where services are being contracted out, relevant objectives should be included in contract specifications and tenderers should explain how they will help achieve them in their method statements.
- Procurement and purchasing decisions should include comprehensive, accurate, and meaningful information about the environmental performance of products and services and an appropriate level of analysis carried out for each procurement exercise to establish the route which will best achieve the Council's environmental objectives.

### Standard clauses for inclusion in all contract specifications

The Council requires all contactors who carry out services on behalf of the council to achieve the Council's environmental objectives. This is achieved by providing data on appropriate Council performance indicators. The performance indicators of relevance to air pollution as follows:

**Table 4.4 Green Procurement Performance Indicators**

<b>Objective</b>	<b>Performance Indicator</b>
<i>To reduce CO<sub>2</sub> emissions and congestion by reducing the number of staff travelling to, from and within work by car</i>	<ul style="list-style-type: none"> <li>• Details of the proportion of contractors' staff providing council service traveling to work by each mode (car, bike, walking and public transport)</li> <li>• Details of the total annual mileage by staff providing council service a) private car b) by bike and c) by pool vehicle</li> <li>• Number of teleworking staff</li> </ul>
<i>To invest in clean, fuel efficient fleet vehicles</i>	<ul style="list-style-type: none"> <li>• Details of the number of fleet vehicles used by contractors to provide councils service by fuel type (including pool vehicles provided for staff use within work)</li> </ul>
<i>To increase the number of staff using public transport, walking or cycling to get to work</i>	<ul style="list-style-type: none"> <li>• Number and type of incentive provided to encourage non car staff travel to and from work in provision of council service</li> </ul>
<i>To consider impact on traffic generation when selecting location for buildings to be used in providing council service</i>	<ul style="list-style-type: none"> <li>• Accessibility of buildings by public transport including the number of bus routes passing or train stations within 5 mins walk of the building</li> </ul>
<i>To encourage visitors and service users to use public transport, walk, cycle or use electronic means's of accessing the council service</i>	<ul style="list-style-type: none"> <li>• Visitor and service user travel methods which can be detailed by an annual survey</li> </ul>

## 5. Seeing Air Quality Improvements - Costs and Benefits

The Government requires local authorities to consider the cost effectiveness and feasibility of each action. The DEFRA's LAQM.PGA(05) provides advice on how to assess the cost-effectiveness of an action.

Three elements are involved:

- An assessment of likely air quality benefits and wider impacts of an action
- An assessment of the direct and indirect costs of implementing an action
- An assessment of other policy options which may already be delivering the same result, and, if so, whether they are considered to be more or less cost-effective.

In drawing up the measures to be included in an action plan; those measures, which achieve greatest air quality improvements for least cost, should be included first.

In any area, there are a potentially large number of different measures that could be implemented to improve air quality. The important decision for the Council is to develop an action plan that compares these options against each other to allow selection of the most appropriate measure or combination of measures to achieve the necessary air quality improvements.

To undertake a full cost-effectiveness assessment can be a detailed and time consuming activity and local authorities are not expected to undertake a full analysis of actions, or to attempt to calculate this for themselves. However, it is important that local authorities can demonstrate that they have considered a range of options and have attempted to quantify their costs.

**The main purpose of the cost effectiveness evaluation is to ensure that an authority is pursuing a balanced and realistic approach.**

Taking into account the fact that a comprehensive analysis is not possible, it is still important to consider a range of options and quantify or qualify them, in some way, to show the relative cost effectiveness of each action or option. This approach has been followed in Lewisham's assessment of costs and benefits.

**Action within the AQMAs will be prioritised in the implementation of those Borough-wide measures.**



## 5.1 Lewisham's Air Quality Assessment of Cost and Benefits

An estimation of the costs and benefits of all twenty-one actions have been summarised in Table 5.2 below. There is little point in local authorities assessing cost effectiveness of measures that they would be doing anyway or are obliged for other reasons to undertake. This applies to aspects such as Lewisham's Local Implementation Plan, to our enforcement of Smoke Control legislation and industrial air Environmental Health.

The London Borough of Lewisham considers that all the measures in this action plan are **feasible** and as a result of their different natures it is impossible to **rank** them in order of priority or relative effectiveness in improving air quality.

It is expected, however, that the implementation of the London-wide LEZ scheme will produce significant reductions in emissions from traffic and as a consequence an improvement in local air quality. Therefore we have not ranked our measures but indicated the level of benefit as low, medium or high. In spite of the LEZ, this Action Plan is a key document, which combines a range of measures that will not only increase public awareness but also reduce air pollution.

Indicative costs for implementing each of the action have been provided in Table 5.2, in accordance with DEFRA policy guidance addendum LAQM.PGA(05) and the criteria showed in Table 5.1. Funds for the majority of the actions have been secured as they are part of ongoing or committed schemes related to other policies. Where additional capital expenditure may be required in addition to officer time (for example Action 20) the implementation of the action is dependant on availability of external funding (e.g. the Air Quality Grant) and this is indicated under the Status heading in Table 5.2. A further detailed analysis of costs will be provided in the next progress report.

It is expected that the measures aimed to directly reduce emissions from transport, although affecting a large area within the Borough, will be most effective in the areas affected by traffic congestion and therefore within the AQMAs.

The majority of the measures on the list are expected to have wider environmental, economical and social benefits. The following **wider impacts** have been considered and reported in brackets in Table 5.2 under the AQ benefits:

- CO<sub>2</sub> - Reduction in CO<sub>2</sub> emissions
- Noise - Reduction in noise
- Safety - Improved road safety
- Health - Improved health
- Congestion - Reduction in traffic congestion

## Education – Raising awareness on air quality issues

A quantitative estimation for emission reduction was only carried out for the LEZ action, as discussed previously. However the quantification was carried out in 2004 and it is considered not to provide accurate estimates and therefore the results have not been included in Table 5.2. Further quantification exercises will be carried out and results included in the next progress report.

It is expected that the majority of those actions classified as having low impact on air quality have a potentially significant cumulative impact if implemented effectively, in support of other initiatives such as the traffic management, parking management and travel planning schemes.

**Table 5.1 Key to the cost benefit analysis in the Action Plan Measures Table**

High (H)	Medium (M)	Low (L)
<b><i>Air Quality Benefits</i></b>		
> 1 $\mu\text{g m}^{-3}$	0.5 -1 $\mu\text{g m}^{-3}$	< 0.5 $\mu\text{g m}^{-3}$
<b><i>Costs</i></b>		
> £100K	£10-100K	Less than £10K
<b><i>Timescale</i></b>		
> 2010	2009-10	< 2009

## 5.2 Responsibilities and Implementation

A large proportion of the actions will involve collaborative working with officers inside and outside the Council to achieve the goals set. Officers in Environmental Health have been working actively with officers in other departments such as land and traffic planning, energy efficiency, environmental initiatives, road safety, fleet management and the corporate management team since the beginning of the review and assessment process.

This was seen to be of great importance as a large proportion of the actions will have to be implemented by departments other than environmental health and a clear understanding of the air quality issues within the Borough was essential to understand the methodology behind the review and assessment process and beyond.

The following service groups will take a lead or support in the implementation of the actions reported in Table 5.2:

- Transport policy and planning group
- Procurement and Energy Efficiency team group
- Planning department
- Parking section
- Fleet management

- Highway and transport
- Traffic planning
- Environmental Health
- Corporate services and management team
- Road safety group
- Travel Planning department

The implementation of some of the actions will be dependant on the availability of funding and resources.

### **5.3 Monitoring of progress of Action Plan measures**

At this stage it is difficult to verify whether the exceeded NO<sub>2</sub> and PM<sub>10</sub> objectives will be met. However it is unlikely that, considering the current trends discussed in Chapter 3, the objective for NO<sub>2</sub> will be met by the EU target date of 2010. Considering the results from the LEZ scenario testing and assuming the effective implementation of all the Action Plan measures, the total reduction in NO<sub>2</sub> could be above 10% (more than 5µg/m<sup>3</sup>) of the current levels by 2010. The achievement of the PM<sub>10</sub> daily mean objective could also be compromised due to emerging trends.

Amongst the factors which could slow down the reduction in emissions expected through the implementation of the AQAP are: the increase in the use of biomass as a renewable energy source in urban areas, the increase in use of diesel and bio-diesel, and the increase in primary emissions in NO<sub>2</sub>. Other constraints are also described in Sections 3.4 and 3.5. Moreover, the source apportionments in Section 3.3 showed that a significant proportion of nitrogen dioxide and particulates levels measured within Lewisham originate outside the borough.

Targets and indicators have been provided (i.e. school travel plans) where possible in Table 5.2. For those actions where specific targets are not provided the aim is to improve the existing situation. Work within the Environmental Health group and discussion with other departments within the Council are ongoing in order that a more detailed quantification of baseline, targets, indicators and air quality benefits will be provided in future progress reports.

Although it is unlikely the objectives will be met Lewisham Council will work toward significantly improving air quality within the Borough. Progress reports will include details on progress for each of the actions.

## 5.4 Consultation on the Draft AQAP

As described in Chapter 1, following the declaration of the AQMAs in June 2001, the consultation process continued internally and externally during the production of the Draft Action Plan, which was published in July 2004.

A summary document was also produced and made available for public consultation during the summer at libraries and during the 'People's Day' held in July to promote services across the Council. No comments were made in respect to specific actions.

Since then the Environmental Health section has continued working with internal and external partners to progress implementation of the actions contained in the Draft Plan and updates made were presented in the Progress Report submitted to DEFRA and the GLA in May 2007<sup>10</sup>. In the same month a Revised Draft Action Plan was also published and submitted for consultation.

Feedback and recommendations were received from DEFRA, the GLA and Lewisham Sustainable Development Select Committee (SDSC) and have been incorporated into the current and final version of the Action Plan.

### Response to the SDSC recommendations

*"The Select Committee expresses grave concern that air pollution in Lewisham exceeds the recommended legal levels and at the lack of air quality monitoring stations in the borough...in the shorter-term we urge the Mayor to seek alternative funding for additional stations with a view to implementing a further 4 air quality monitoring stations in Lewisham to have a total of 6 in operation within the next 2 years".* Addressed in Section 4.2.10 – Action 20. The Environmental Health group supports the recommendations from the SDSC.

*"The Select Committee is concerned in particular that there is currently no way to monitor PM<sub>2.5</sub> emissions from SELCHP and believes that the council should act jointly with the Environment Agency to address this shortfall."* This problem has been highlighted in the Section 4.2.9 – Action 19. The Environmental Health group will liaise with the Environment Agency to investigate the issue and possible actions.

### Responses to the AQAP following GLA and DEFRA recommendations

Listed below are some of the changes incorporated into the Final AQAP as a consequence of the recommendations received from the GLA and DEFRA respectively in August and October 2007 (copy of responses are available through the Environmental Health Department):

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<sup>10</sup> [www.lewisham.gov.uk](http://www.lewisham.gov.uk)

- Further details of the outcome of the consultation process have been included in Chapters 1 and 5.
- A clear statement of the measures to be progressed has been included in Table 5.2 under the heading “Funding & Status” (of the measures)
- Further consideration of the wider impacts and cost-effectiveness of measures has been provided in Chapter 5 and under the heading “Air Quality Benefits (Wider impacts)” in Table 5.2. Quantification of air quality impacts was reviewed. Detailed quantification had already been carried out for Action 1 (LEZ). Further quantification has not been possible at this stage (due to lack of accurate input data, unavailability of tools such as dispersion modelling software or MapInfo/ArchView GIS, and staffing issues). This will be included in the next progress report.
- Clear statement of key responsibilities and whether funding has been secured are made in Chapter 5, Chapter 4 (within the sections describing the relevant actions) and in Table 5.2 under the headings “Lead/Key Responsibility (Partners)” and “Funding & Status”.
- Explicit timescales for implementation of measures have been included in the relevant paragraphs within Chapter 4 and under the heading “Targets & Performance Indicators” in Table 5.2.
- Key performance indicators, specific actions and targets for the majority of the measures have been included in Chapter 5 and under the heading “Targets & Performance Indicators” in Table 5.2.

**Table 5.2 Action Plan Measures**

Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
<b>Action 1</b> – Introduction of London Low Emission Zone (LEZ)	High (CO <sub>2</sub> , Noise)	Zero	Short	GLA - TFL (London Councils, London Boroughs)	GLA, TfL	Ongoing Publicise LEZ implementation within the Borough - Feb 2008
<b>Action 2</b> - Vehicle Emissions Testing.	Low (CO <sub>2</sub> )	Low	Med	LBL - Environmental Health (VOSA)	Air Quality Grant	<b>Subject to funding</b> Carry out at least one emission testing survey (voluntary or roadside) - Apr 2009
<b>Action 3</b> – Measures to address idling Engines	Low (CO <sub>2</sub> , noise)	Low	Short	LBL Environmental Health (LBL Transport, TfL)	LBL existing budget,  Air Quality Grant	<b>Subject to funding</b> a) Complaints recording and follow-up actions - May 2008 b) Implement at least one scheme aimed to raise awareness on the impact of idling engines (i.e. information leaflets, eco-driving, signage at critical hotspots) - Dec 2008
<b>Action 4</b> – Measures to encourage the Use of Cleaner Technology and Alternative Fuels in Council and Contractors Fleet.	Medium (CO <sub>2</sub> )	High	Short	Fleet management (Transport, Sustainable Energy)	LBL existing budget  Air Quality Grant  Ongoing	Ongoing: Full fleet compliance with LEZ standards - Feb 2008  <b>Subject to funding.</b> Establish fleet emissions inventory (baseline) using toolkit for new air quality National Indicator NI194: Reduction in NO <sub>x</sub> and PM <sub>10</sub> emissions through local authority's estate and operations

Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
<b>Action 5</b> – Measures to encourage the Use of Cleaner Technology and Alternative Fuels in Public Transport Vehicles	Medium (CO <sub>2</sub> )	Low	Short-Med	TfL, London Bus companies, Fleet Management	GLA	Ongoing Bus fleet compliance with LEZ standards – Feb 2008
<b>Action 6</b> - Measures to encourage the Use of Cleaner Technology and Alternative Fuels in taxis	Medium (CO <sub>2</sub> )	Low	Short	Transport for London, GLA	GLA	Ongoing
<b>Action 7</b> - Measures to encourage the Use of Cleaner Technology and Alternative Fuels in Delivery and Freight Road Vehicles	Medium (CO <sub>2</sub> , noise, congestion)	Low	Med-Long	Transport for London (London Boroughs, Private Sectors)	GLA	Ongoing Active participation to SLFQP – Jan 2008 Implement one or more SLFQP schemes within the Borough boundaries

Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
<b>Action 8</b> – Measures to support a sustainable Transport Strategy for Lewisham	Low  (CO <sub>2</sub> , health, congestion)	High	Med - Long	TfL & LBL Transport	LBL existing funding, TfL	Ongoing LIP indicator. Traffic volumes (millions of vehicles kilometres) Target change in traffic growth - maximum of 4% growth between 2001 and 2011 (Lewisham Western Screenline Data 12 Hour Flows)  LIP indicator. Bus Excess Wait Time (EWT) on High Frequency Routes, minutes per customer: 1.3 min – 2008/09
<b>Action 9</b> – Measures to encourage and promote the use of Travel plans	Low  (CO <sub>2</sub> , education)	Medium	Short-Med	LBL Transport (TfL)	LBL existing funding	Ongoing Increase number of staff travelling by more sustainable modes of transport by organising walking/cycling events and training e.g. safer travel at night - Dec 2009  Increase the number of workplace travel plan within the borough - Dec 2009  100% of schools to be engaged in the STP process - Dec 2008 100% of schools to implement a STP - Dec 2009
<b>Action 10</b> – Measures to promote and publicise improvements to public transport	Low  (CO <sub>2</sub> )	Low	Medium	TfL (LBL Transport)	TfL LBL existing funding	Ongoing



Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
<b>Action 11</b> – Promotion of Walking	Low (CO <sub>2</sub> , health)	Medium	Medium	LBL Transport & TfL	LBL existing funding	Ongoing LIP indicator. Walking trips per person per annum and target year: 171,798 – 2008; 175,300 – 2011
<b>Action 12</b> – Promotion of Cycling	Low (CO <sub>2</sub> , health)	Medium	Medium	LBL Transport & TfL	LBL existing funding	Ongoing Increase of at least 80% in cycling in the Borough between 2001 – 2011 12-hour flow: 3296 by 2011
<b>Action 13</b> - Measures to manage parking in the Borough	Low (CO <sub>2</sub> )	High	Short - Med	LBL Parking	LBL existing funding	Ongoing Number of new Controlled Parking Zones Number of new on-street parking places for car club vehicles
<b>Action 14</b> – Speed Management	Low (Safety)	Medium	Medium	LBL Transport &	LBL existing funding	Ongoing Number of new 20mph zones
<b>Action 15</b> - The Council will work with external bodies such as TfL to manage road planning	Low-High (CO <sub>2</sub> , noise)	Low	Medium	TfL (LBL Transport)	TfL LBL existing funding	Ongoing

Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
<b>Action 16</b> - Measures to reduce emissions from new developments	Medium (CO <sub>2</sub> )	Low	Short	LBL Development Control & Environmental Health	LBL Existing funding, S106	Ongoing % of new major developments to provide S106 funding for air quality related schemes  % of new development within AQMAs with 0.5 or lower car parking allocation per unit (residential), residential and work-place travel plans, secure cycling parking allocation, schemes aimed to maximise use sustainable travel modes
<b>Action 17</b> - Measures to reduce or eliminate emissions from commercial construction sites	PM <sub>10</sub> - High NO <sub>2</sub> -- Low (CO <sub>2</sub> , safety)	Low	Short	LBL Environmental Health	LBL Existing funding	Ongoing Update LBL web-site to include link to new London- wide Best Practice Guidance – May 2008
<b>Action 18</b> - Measures to reduce emissions from domestic buildings	Low (CO <sub>2</sub> )	Medium	Short	Procurement and Energy Efficiency & Environmental Health (Development Control)	LBL Existing funding	Ongoing Finalise the Draft Energy and Carbon Reduction Strategy – Dec 2008  Re-designation of Smoke Control Zone – Dec 2008

Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
<b>Action 19</b> - The Council will continue to control the release of emissions from Industrial and commercial premises	Low (CO <sub>2</sub> )	Low	Short-Med	LBL Environmental Health & Sustainable Energy	LBL Existing funding	<p>a) Ensure statutory requirements under LAPC regime are met and work towards implementation of best practice</p> <p>b) Investigate provision of district heating from SELCHP to the proposed Convoy Wharf development – Dec 2010.</p> <p>c) Carry out energy management surveys at Council buildings, make recommendation to reduce energy bills.</p>
<b>Action 20</b> - The Council will continue to assess the current air quality levels across the Borough and increase awareness on air quality issues	Low (Health, education, awareness, CO <sub>2</sub> )	Medium	Short	LBL Environmental Health	LBL Existing funding, Air Quality Grant, S106	<p><b>Subject to funding</b></p> <p>a) Additional capital expenditure necessary: Establish 1 new fixed continuous monitoring stations (AQMS) for NO<sub>2</sub> &amp; PM<sub>10</sub>/ PM<sub>2.5</sub> within one of the AQMAs - Jan 2009</p> <p>b) Establish NO<sub>2</sub> diffusion tube monitoring network - Mar 2008</p> <p>c) Publicize the Air-Text scheme – Jul 2008</p> <p>e) Organise one event to raise awareness on air quality issues and/or engage local community/business/voluntary groups/schools etc – Dec 2008</p> <p>f) Quantification of air quality benefits (reduction in pollutant emissions or concentration) in progress reports– May 2008</p> <p>g) Further Source Apportionment Study</p>

Action	AQ Benefit (Wider impacts)	Council Costs (yearly)	Timescale	Lead (partners)	Funding	Status, Targets & Performance Indicators
Action 21 - The Council will implement procurement measures to reduce overall pollution levels across the Borough	Low (CO <sub>2</sub> )	Medium	Short	LBL Procurement & Energy Efficiency	LBL existing funding	Ongoing Contractors to fill in the Council performance indicators checklist

## 6 Glossary of Terms

<b>ADMS:</b>	Atmospheric Dispersion Modelling System - Computer software used to predict future concentrations of air pollutants.
<b>London Councils:</b>	Association of London Government – works on behalf of councils in London
<b>AQMA:</b>	Air Quality Management Area – area where it is predicted that air quality objectives are unlikely to be met by specified deadlines
<b>AURN:</b>	Automatic Urban & Rural Network – a network of air quality monitoring stations funded by central Government
<b>BRE:</b>	Building Research Establishment
<b>CERC:</b>	Cambridge Environmental Research Consultants
<b>CfIT:</b>	Commission for Integrated Transport – government funded agency on congestion charging
<b>CNG:</b>	Compressed Natural Gas – gas found underground mostly made up of methane. When burnt it produces less pollution than diesel or petrol.
<b>CO:</b>	Carbon Monoxide – a gas formed during incomplete combustion of fossil fuels
<b>COMEAP:</b>	Committee on the Medical Effects of Air Pollution – group set up by the government to quantify health effects of air pollution
<b>CoCP:</b>	Code of Construction Practice – guidelines for developers to minimize dust generation
<b>CPZ:</b>	Controlled Parking Zone – areas where only those with permits are allowed to park otherwise they could risk being fined
<b>CRT:</b>	Continuously Regenerating Trap – traps fitted to diesel engines to reduce the production of particles and gases
<b>CVTF:</b>	Cleaner Vehicles Task Force – Government group to encourage use and purchase of cleaner vehicles
<b>DEFRA:</b>	Department of Environment, Food and Rural Affairs

<b>DfT:</b>	Department for Transport
<b>DOH:</b>	Department of Health
<b>DTLR:</b>	Department of Transport, Local Government and the Regions
<b>EAHEAP:</b>	Economic Appraisal of the Health Effects of Air Pollution – group set up by the government to determine costs associated with air pollution as a follow up from COMEAP
<b>EC:</b>	European Commission – develops policies and initiatives at a European level
<b>EGR:</b>	Exhaust Gas Recirculation – new and future technology to reduce NO <sub>x</sub> emissions in HGVs by 50%
<b>EIA:</b>	Environmental Impact Assessment – procedure to identify likely significant environmental effects resulting from a proposed development
<b>EPAQS:</b>	Expert Panel on Air Quality Standards
<b>ERG:</b>	Environmental Research Group – Consultants who are part of King's College, London, University of London
<b>EST:</b>	Energy Saving Trust – a Government funded organisation to encourage use of cleaner vehicles
<b>GLA:</b>	Greater London Authority
<b>GTN:</b>	Green Travel Network – way to provide businesses and other organization with information on sustainable transport such as local green delivery companies and taxis
<b>HC:</b>	Hydrocarbons – a group of gases made up of hydrogen and carbon which includes the pollutant, benzene which is known to form cancer
<b>HGV:</b>	Heavy Goods Vehicle
<b>ITP:</b>	Interim Transport Plan – annual plans for spending on transport schemes
<b>LAEI:</b>	London Atmospheric Emission Inventory
<b>LAQM:</b>	Local Air Quality Management – Continuous process of review and assessment of air quality required by local authorities
<b>LAPC:</b>	Local Air Pollution Control – powers for local authorities to control air pollution from certain industrial processes

<b>LCN:</b>	London Cycling Network – network of over 2000 miles of cycle routes and facilities planned around London
<b>LGV:</b>	Light Goods Vehicles – vehicles under 3.5 tonnes
<b>LEZ:</b>	Low Emission Zone – an area where commercial vehicles that do not meet pollution emission standards are legally barred
<b>LNG:</b>	Liquefied Natural Gas – Liquefied form of gas mainly made up of methane
<b>LPG:</b>	Liquefied Petroleum Gas – a gas mainly consisting of propane mainly produced as a by-product of oil refining. Less efficient than petrol or diesel but cleaner vehicle fuel
<b>MHGV:</b>	Medium and Heavy Goods Vehicles $\mu\text{g}/\text{m}^3$ Micrograms per metre cubed – measurement term used to describe concentrations of pollutants, such as fine particles
<b>MOT:</b>	Annual test legally required for vehicles older than 3 years.
<b>NAQS:</b>	National Air Quality Strategy – Government strategy outlining health based targets for 7 air pollutants
<b>NETCEN:</b>	National Environmental Technology Centre
<b>NO<sub>2</sub>:</b>	Nitrogen Dioxide – pollutant created during high temperature combustion as a result of the oxidation of nitric oxide (NO)
<b>NO<sub>x</sub>:</b>	Nitrogen Oxides – a term used to describe both nitrogen dioxide and nitric oxide
<b>NSCA:</b>	National Society for Clean Air
<b>PAH:</b>	Polycyclic Aromatic Hydrocarbons – group of organic compounds with complex structures produced from burning oil (heaters and vehicles). Can cause cancer in large concentrations
<b>PM<sub>10</sub>:</b>	Airborne particles with a diameter less than 10 $\mu\text{m}$
<b>PM<sub>2.5</sub>:</b>	Airborne particles with a diameter less than 2.5 $\mu\text{m}$
<b>ppb:</b>	Parts Per Billion - a measurement term used to describe concentrations of pollutants
<b>PPG:</b>	Planning Policy Guidance

<b>ppm:</b>	Parts Per Million - a measurement term used to describe concentrations of pollutants (1000 times greater than ppb)
<b>RPC:</b>	Reduced Pollution Certificate – can be given to vehicles that have had retro-fitting or after-exhaust treatment to increase their emission standard
<b>RTRA:</b>	Road Traffic Reduction Act – 1997 legislation whereby local councils have to prepare a report on existing levels of traffic and forecast expected growth
<b>SO<sub>2</sub>:</b>	Sulphur Dioxide – a gas mainly produced from the burning of coal and oil
<b>SCR:</b>	Selective Catalytic Reduction - new technology that potentially could be fitted to HGVs to reduce NO <sub>x</sub> emissions by up to 90%
<b>SPG:</b>	Supplementary Planning Guidance – additional documents to the UDP on specific issues.
<b>SLFQP:</b>	South London Freight Quality Partnership
<b>TfL:</b>	Transport for London – section of GLA concerned with delivering London Mayor’s transport strategy and responsible for the TLRN.
<b>TLRN:</b>	Transport for London Road Network
<b>TRL:</b>	Transport Research Laboratory
<b>TRO:</b>	Traffic Regulation Orders – legislation by which councils can ban certain types of vehicles into areas
<b>TTR:</b>	Transport and Travel Research
<b>µg/m<sup>3</sup>:</b>	Microgrammes per cubic metre
<b>UDP:</b>	Unitary Development Plan – sets out Lewisham’s policies for use and development of land and buildings
<b>ULSD:</b>	Ultra Low Sulphur Diesel – diesel fuel containing lower concentrations of sulphur (less than 50 ppm sulphur)
<b>ULSP:</b>	Ultra Low Sulphur Petrol – petrol with lower sulphur content (less than 50ppm sulphur)
<b>VED:</b>	Vehicle Excise Duty – Government’s vehicle tax for which there are reductions for cleaner vehicles



**VET:** Vehicle Emissions Testing – programmes of voluntary and enforced testing of vehicle exhaust emissions