# Greater London Authority

# London Plan - Sustainability Appraisal Final Iteration

Appendix A : Baseline Report

April 2004

Entec UK Limited

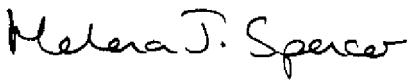
**Report for**

Greater London Authority
City Hall
The Queen's Walk
London
SE1 2AA

**Main Contributors**

Sean Nicholson
Tim Gale
Helena Spencer
Elspeth Wray
Rachael Dimmick
Clive Harridge

**Issued by**



.....

Helena Spencer

**Approved by**

.....

Clive Harridge


**Entec UK Limited**

Gables House
Kenilworth Road
Leamington Spa
Warwickshire
CV32 6JX
England
Tel: +44 (0) 1926 439000
Fax: +44 (0) 1926 439010

h:\projects\ea-210\06343\final docs sent\final report april 04\appendix a - baseline report(final - april) [2].doc


# Greater London Authority

# London Plan - Sustainability Appraisal Final Iteration

Appendix A : Baseline Report

April 2004

Entec UK Limited


Certificate No. EMS 69090

Certificate No. FS 13881

# Contents

Figures and Tables

# PART ONE

# Preamble

## Background

Entec was appointed in June 2001 to undertake the Sustainability Appraisal (SA) of the London Plan. A methodology for undertaking the appraisal was agreed with the GLA and the first stage of the appraisal was subsequently undertaken through three iterations culminating in the sustainability appraisal of the draft London Plan. The appraisal was published alongside the draft London Plan in June 2002. As part of the appraisal, two meetings were held with a stakeholder group specifically formed to contribute to the appraisal process.

The examination in public into the draft London Plan began in February 2003 and the Panel's Report was published in July 2003. Following consideration of the Panel's Report, the Plan was amended and the final version of the Plan was published in 2004.

In accordance with the relevant good practice the published Plan has been subjected to a sustainability appraisal.

The Panel's Report makes specific comments on the methodology used to appraise the plan to date and the use of the appraisal results. Specific recommendations were made in respect of future appraisal work and the final version of the appraisal sought to address these.

Although the Plan was adopted before the Strategic Environmental Assessment (SEA) Directive[1] came into force, the final iteration of the SA had regard to this.

## Purpose of this Document

Section 3 of the main report on the Sustainability Appraisal outlines the methodology that has been used. This report covers the assessment of the baseline environment. Its purpose is to provide the basis for prediction and monitoring of environmental and other sustainability effects. ODPM guidance on SEA (ODPM, October 2003) advises that sufficient data about the current and likely state of the environment without further intervention should be collected to allow a plan's effects to be adequately predicted. It is acknowledged that this is only a start towards addressing the SEA requirements and that due to time constraints it has not been possible to undertake consultation on the scope of this baseline report. The GLA have stated that the full requirements of SEA and SA will be addressed in future work leading to the first review of the London Plan.

[1] European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'.

## Format of this Document

The appraisal objectives have been used as the basis for the analysis of the baseline. This approach is consistent with guidance from ODPM and helps to ensure that all factors are considered (economic, social and environmental).

For each objective a series of questions have been set to help scope out the relevant issues; consideration is then given to how the baseline will evolve without further intervention. In undertaking this work regard has been paid to existing initiatives and policies that are already in place and are assumed to continue.

Finally each section concludes by considering how the Plan might contribute to the achievement of the objective recognising that the planning system cannot tackle issues in isolation and some issues fall outside of its zone of influence. These examples are provided to assist the reader.

## Sources of Information

Information has been obtained from a range of sources including:

the draft London Plan;

strategies prepared by the Mayor e.g. for waste and energy;

other studies and reports, e.g. work undertaken by the GLA Scrutiny Committees; and

information provided by other organisations, e.g. the London Development Agency.

A full list of references is provided at the end of this report at Annex A. A list of acronyms and abbreviations is provided in Annex B.

# PART TWO

# 1. Objective 1 - Development and Transport

The objective is:

> *"To focus development at locations which are currently well served by public transport with spare existing capacity, walking or cycling, or at locations where improvements are planned to achieve increases in their modal share."*

## 1.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- Why focus development at points well served by public transport, walking or cycling?
- What is the current situation with regards access to public transport and opportunities for walking and cycling in London?
- Where are improvements planned?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 1.2 Summarised Baseline Information

### 1.2.1 Why focus development at points well served by public transport, walking or cycling?

The concentration of development in areas that have good public transport provision should encourage a reduction in dependence on the private car. There is a close relationship between the density of development and the methods of travel used, with higher density developments and improved local facilities and services encouraging public transport use, walking and cycling. A mix of different uses, located close together, can help reduce the distance people need to travel. Parking provision (both residential and non residential) also significantly affects whether people choose to drive.

Development that will generate large numbers of trips should be located at places accessible by public transport and with existing or planned capacity coming on-stream in time to meet need. In determining applications for development and any conditions attached to implementation, including those relating to the phasing of developments, account should be taken of the availability of adequate public transport access and capacity, and the development's transport impact.

### 1.2.2 What is the current situation with regards access to public transport and opportunities for walking and cycling in London?

**Figure 1.1** illustrates the different levels of access currently provided by public transport in London. Locational planning is being informed by consistent London-wide public transport access mapping (the PTAL calculator), which has been developed by Transport for London (TfL), in conjunction with the boroughs. Access is very good in Central London but there are significant areas in East London, Inner North East London and South London where public transport accessibility is inadequate, presenting a barrier to economic growth and regeneration. Much of London's periphery is also poorly served by public transport.

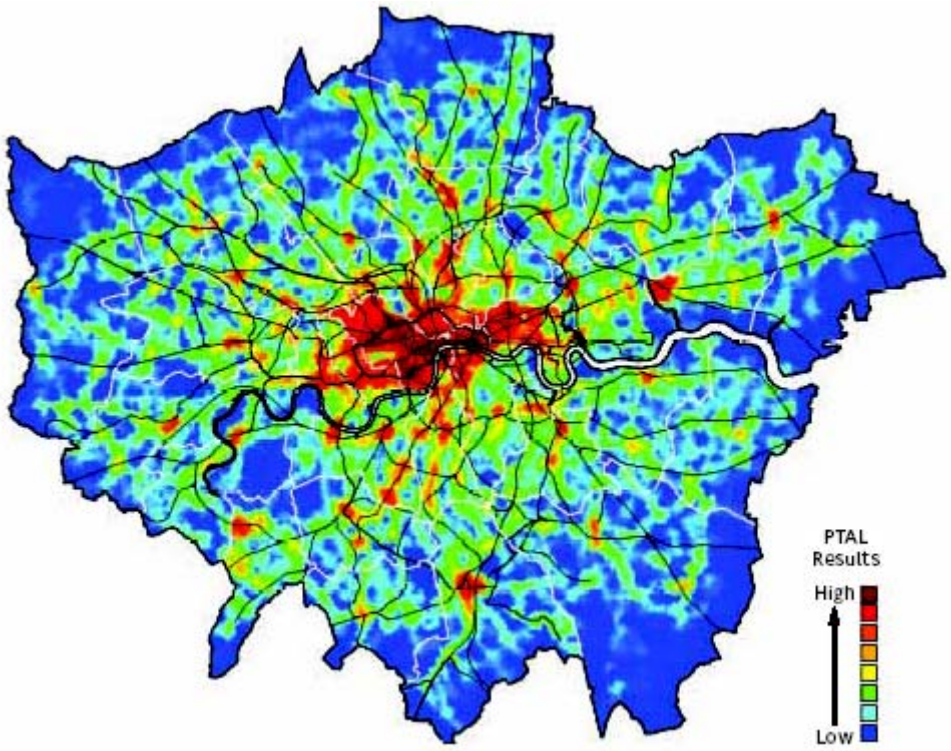



**Figure 1.1 Access to public transport in London**

Source: The Mayor's Transport Strategy (GLA, July 2001)

**Figure 1.2** indicates current levels of public transport access to London's metropolitan town centres, highlighting the extent of catchment areas within 30 minutes travel time and the important role of the town centres as sustainable locations for development.

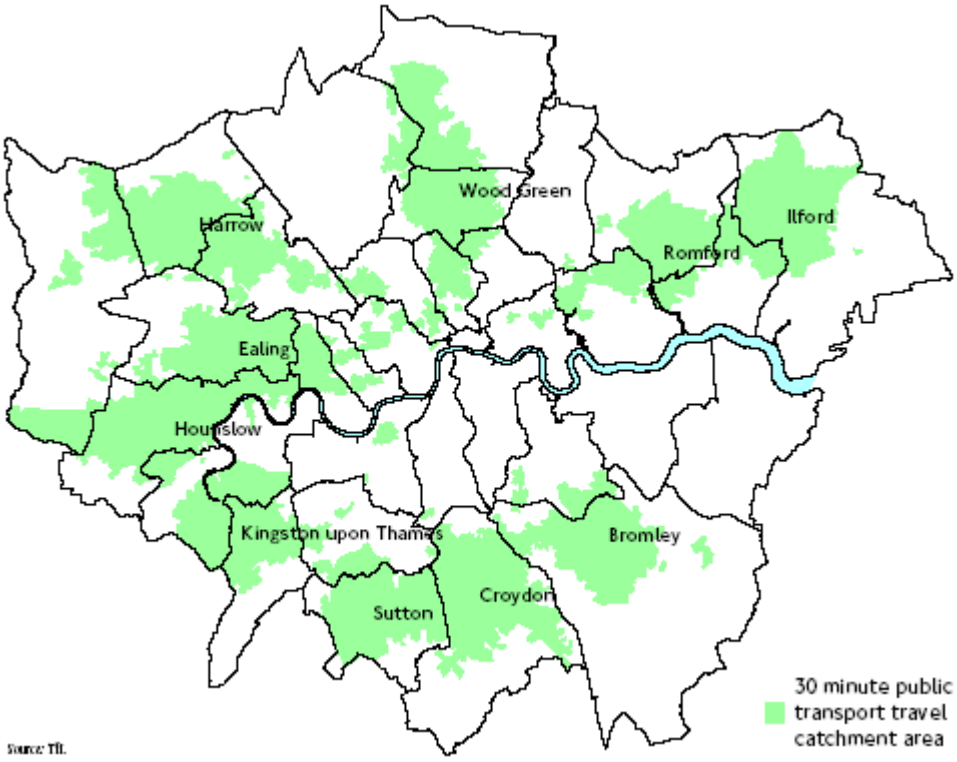



**Figure 1.2 Public transport access to key suburban town centres in London**

Source: The Mayor's Transport Strategy (GLA, July 2001)

For walking and cycling, there are a number of strategic routes in and around London. These include six routes that are intended to represent exemplar walking routes.

### 1.2.3 Where are improvements planned?

Key improvements to the public transport network as identified in the draft London Plan include:

- The Thames Gateway;
- The Central Activities Zone;
- Opportunity Areas;
- Areas for Intensification; and
- Town Centres.

## 1.3 How will the Baseline Evolve without Further Intervention?

Development taking place close to public transport interchanges is likely to increase in the future for two main reasons:

- Policy shift: national Planning Policy Guidance Note 13 '*Transport*' (PPG13) provides guidance on the need for transport accessibility to be taken into account when locating development and places great emphasis on the need for modal choice. Whilst the London Plan will have a key role in implementing these policies there is a clear steer from guidance at the national level. It is assumed that national guidance will continue and will need to be reflected in UDPs and planning decisions.
- New public transport routes: there are a number of proposals to increase the capacity, quality and integration of public transport in London. This should provide more opportunities to site development on these routes.

## 1.4 How can the Plan Contribute to the Achievement of this Objective?

- The Plan can contribute to the achievement of this objective by:
- encouraging the integration of transport and development and improved modal choice;
- encouraging the protection and enhancement of existing opportunities for walking and cycling;
- encouraging the removal of barriers to walking and cycling, e.g. fear of crime and poor air quality (barriers are discussed under objective 2); and
- creating the policy context for improving the general standard of public transport, e.g. transport interchange facilities and waiting facilities.

# 2. Objective 2 - Car Dependency

The objective is:

> *"To reduce car dependency by improving transport choice and thus increasing the proportion of journeys made by public transport, by bicycle and by foot."*

## 2.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What are current levels of transport use and car dependency?
- What are the reasons behind car dependency?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 2.2 Summarised Baseline Information

### 2.2.1 What are current levels of transport use and car dependency?

The Mayor's Transport Strategy provides information on current transport use in London. **Table 2.1** summarises current transport use by different modes. Car and public transport use varies in different parts of London. The car is the most dominant form of transport in Outer London, accounting for four out of every five vehicular trips. Car use is roughly balanced with the use of other modes in Inner London, whilst most travel in, from and to Central London is by public transport.

Buses and underground travel account for a broadly similar number of trips (4.7 and 4.5 million daily passenger boardings respectively) but Underground use is for longer trips primarily to, from and within Central London, whilst buses are the most used public transport mode outside Central London. National Rail has the primary role for travel into Central London from beyond Greater London, and its large proportion of peak trips reflect its focus on commuters.

Walking accounts for about a quarter of all trips and bicycles account for two percent of all journeys. Results from TfL's London Residents Transport Survey suggest that cycling everyday is most common in Central London. Infrequent or leisure cycling is most popular in south-west suburban areas of London.

Although car ownership in London is lower than in the rest of the UK (36 percent of London households currently do not own a car compared with 28 percent in the rest of the UK), more journeys need to be made by public transport to reduce road

traffic. Road traffic accounts for over half of London's nitrogen oxides emissions and two-thirds of fine particles, the two pollutants of greatest concern for health. Heavy traffic flows reduce the reliability of bus services, disrupt servicing and delivery movements for business, lead to traffic accidents and contribute to noise pollution. Areas where these are particular problems include Central London, Inner London, West London (especially Heathrow) and along major roads.

**Table 2.1 Travel in London by different modes**

| Mode of travel | Daily trips (million)[1] | Average trip length ( km) | Network speed [kph (mph)] | Trips for work (%) | Trips in period (%) |
|---|---|---|---|---|---|
| Underground[2] | 4.7 | 7.7 | 32 (20) | 51 | 57 |
| National Rail | 1.6 | 27.4 | 56 (35) | 55 | 60 |
| Docklands Light Rail | 0.1 | 5.1 | 29 (18) | 61 | 60 |
| Bus | 4.5 | 3.4 | 18 (11) | 28 | 36 |
| Walk | 7.0 | 0.8 | 5 (3) | 12 | 35 |
| Car/Motorcycle | 11.0 | 11.7 | 31 (19) | 26 | 45 |
| Bicycle | 0.3 | 5.0 | 16 (10) | 34 | 24 |
| Taxi | 0.2 | 5.1 | 23 (14) | 18 | 23 |
| Dial-a-Ride and Taxicard | 0.01 million trips per day | | | | |
| Coach | 0.2 million trips per day | | | | |
| Croydon Tramlink | 0.05 million trips per day (October 2000 levels) | | | | |
| Minicabs | Approximately 0.2 million trips per day | | | | |
| River | 0.01 million trips per day | | | | |
| Heavy goods vehicles | 3% of vehicles on major roads | | | | |
| Light goods vehicles | 11% of vehicles on major roads | | | | |
| Motorcycles | 2% of the 11 million car/motorcycle total | | | | |

Notes

Trips on a midweek day: 2000 estimate for Underground, bus and Tramlink; 1999 estimate for other modes.

Daily trips based on passenger boardings (including interchanges) for Underground, National Rail and bus.

Underground trips are often quoted as journeys excluding Underground to Underground interchanges.

Source: The Mayor's Transport Strategy (GLA, July 2001)

### 2.2.2 What are the reasons behind car dependency?

The Mayor's Transport Strategy has identified the following factors that limit use of public transport.

#### Overcrowding on public transport

The numbers of trips on the Underground and National Rail Services have been growing rapidly since the early 1990s. Underground crowding is increasingly

severe; the Central, Victoria, Piccadilly and Northern Lines all have sections of line that are classified as severely crowded at peak times. On National Rail services in Inner London, passengers frequently experience much more intense overcrowding than average figures suggest.

**Unreliability and poor punctuality**

The proportion of scheduled bus kilometres not operated more than doubled from 1.8 percent in 1995/1996 to 4.3 percent in 1999/2000. The proportion of low frequency (timetabled) services departing on time fell from 71 percent in 1995/1996 to 67 percent in 2000/2001. Traffic congestion was the cause of almost half of the bus kilometres not run. Violations of bus lane and parking regulations are additional major causes of service unreliability.

92 percent of scheduled kilometres were operated on the Underground in 2000/2001. In the summer of 2000 reliability for National Rail services in London varied between 84 percent and 91 percent of trains departing on time, before reducing significantly after Hatfield.

**Integration**

London's bus, Underground and National Rail services are insufficiently integrated; lack enough good interchanges; often have inadequate information (notably minute-by-minute service information); and too often have poorly co-ordinated service timings. The wide range of means of travel available and the common need to interchange, show that integration within and between modes is of particular significance in London.

**High public transport fares**

Public transport fares in London rose rapidly over a period of 15 years, which in contrast to the relatively static cost of running a car has provided a disincentive to the use of public transport. However, more recently the level of the average fare paid in real terms has remained constant on the underground and declined for bus journeys.

**Barriers to walking and cycling**

The number of walking trips made in London has declined by 13 percent in the past decade. Research shows there are many factors that discourage people from walking. These include concerns about traffic volume, air quality, road safety, personal security, lack of information and the poor quality of the street environment. Walking is rejected as a mode of transport because London's streets are seen as unattractive, dirty, cluttered, inconvenient, badly maintained, poorly lit and difficult to cross. In addition, people with disabilities often find their needs have not been considered.

Half of all journeys made in London are under two miles, a distance easily cycled. However, the level of cycling in London is relatively low compared to many other European cities. There are many reasons why people do not cycle including safety issues, poor cycling environment and lack of information or skills.

## 2.3 How will the Baseline Evolve without Further Intervention?

London starts from a lower level of car ownership than the rest of the UK. Increasing affluence is typically accompanied by rising car ownership and projections suggest the total number of cars in London will increase.

The significant factors underlying travel growth, including the latest GLA projections of growth in population and employment, have been included as inputs to the London Transportation Studies (LTS) computer model. Likely changes in travel have been projected based on a review of previous trends, research by TfL and LTS model results. The analysis indicates the following changes in peak period demand over the next 10 years in the absence of the changes in transport provision in the Mayor's Transport Strategy:

- Demand for Underground to increase by 16 percent;
- Demand for National Rail to increase by 15 percent;
- Demand for bus services to increase by 15 percent; and
- Vehicle traffic to increase by 7.5 percent in Outer London, by 4.5 percent in Inner London and to remain broadly unchanged in Central London.

Data on projected changes in the proportion of trips made on foot are not available. However, Transport for London is working with the London boroughs and other relevant organisations to ensure the effective promotion and delivery of better conditions for walkers. This work includes:

- 'The World Squares For All' project with the partial pedestrianisation of Trafalgar Square as the first stage;
- the completion and promotion of six strategic walking routes together with riverside and canal paths;
- opening up railway arches and providing new footbridges across railways;
- removal of footbridges and closures of subways and replacement with surface level facilities;
- signing and security improvements;
- additional pedestrian phases at signalised junctions as well as new pelican and puffin crossings;
- the development of best practice guidance on audits of pedestrian facilities and accessibility, including issues related to safety and the needs of disabled people; and
- a rolling programme of improvements to make the street environment more accessible by removing barriers and obstructions that make it difficult or unsafe for pedestrians.

London has experienced a long-term decline in cycling. However, in recent years, particularly in Central and Inner London, there has been a steady increase in the level of cycling by adults.

## 2.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by encouraging the efficient use of road-space, e.g. by

- re-allocating lanes to public transport and cycling;
- encouraging the integration of transport and development and improved modal choice;
- encouraging the protection and enhancement of existing opportunities for walking and cycling;
- encouraging the removal of barriers to walking and cycling (e.g. fear of crime and poor air quality); and
- creating the policy context for improving the general standard of public transport, e.g. transport interchange facilities and waiting facilities.

# 3. Objective 3 - Compact and Mixed-use Development

The objective is:

> *"To encourage sustainable development that is compact and mixed-use as appropriate, with provision of key local services and amenity that will reduce the need to travel."*

## 3.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes mixed-use development?
- What are key local services and amenities?
- What is the historical development pattern in London?
- What is the current pattern of development in London as regards mixed-use and compactness?
- What are the current travel patterns in London?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 3.2 Summarised Baseline Information

### 3.2.1 What constitutes mixed-use development?

Mixed-use development is a relative concept. Whether areas or sites are described as being in single or mixed-use depends on the frame of reference and on how boundaries are drawn. In fact, there is a continuum between single and mixed-use developments taking into account the different spatial scales at which uses and activities may be mixed.

**Figure 3.1** illustrates the concept of the single/mixed-use continuum based on the three principal spatial scales of individual buildings, street blocks or sites and districts, neighbourhoods or 'urban quarters'. Each of these three settings is further divided into two intermediate levels to reflect the size of building, block or area thereby creating a scale comprising six degrees or *levels* of mixed-use development. No attempt has been made to define the difference between 'large' and 'small' buildings, blocks or areas with any precision; the intention is simply to

express the variations of scale that are found in practice. The nature and qualities (including the benefits and associated problems) of mixed-use developments at these different scales is a product of several variables.

Mixed-use development in a London context is illustrated below with the example of Camden.

Camden is a central London Borough. To the south it is dominated by activities of metropolitan and international significance in the fields of education, law, medicine, the arts, broadcasting, business, commerce, tourism and transport. This area also supports a number of residential communities, a major shopping centre and local shops and services, which contribute to the vitality and mixed-use character of the area. North of Euston Road, considerable development has occurred around the major stations of Kings Cross, St Pancras and Euston and their associated goods yards. Further north the borough becomes more residential in character but with particular areas characterised by a concentration of shops, a mix of uses and local services. There are a number of smaller district and neighbourhood centres. The borough comprises several more or less distinct mixed-use quarters or 'urban villages' including Covent Garden, Fitzrovia, Hampstead, Highgate and Hatton Garden. There can be few local authority areas in England that exhibit a more mixed-use pattern of development than Camden. Evidence from land use surveys presented by the Council at the Unitary Development Plan (UDP) Inquiry in 1995 showed that over a majority of the area south of Euston Road, on average, properties contained two or more different uses and there were examples of properties accommodating over five uses. In the same area, some 50 percent of properties were under 500 square metres. Small mixed-use buildings (level 6) and small mixed-use street blocks (level 4) are commonplace in areas such as Fitzrovia, Covent Garden and Hatton Garden but also elsewhere in the central area and, more rarely, beyond. In short, Camden contains examples of every 'level' of mixed-use development.

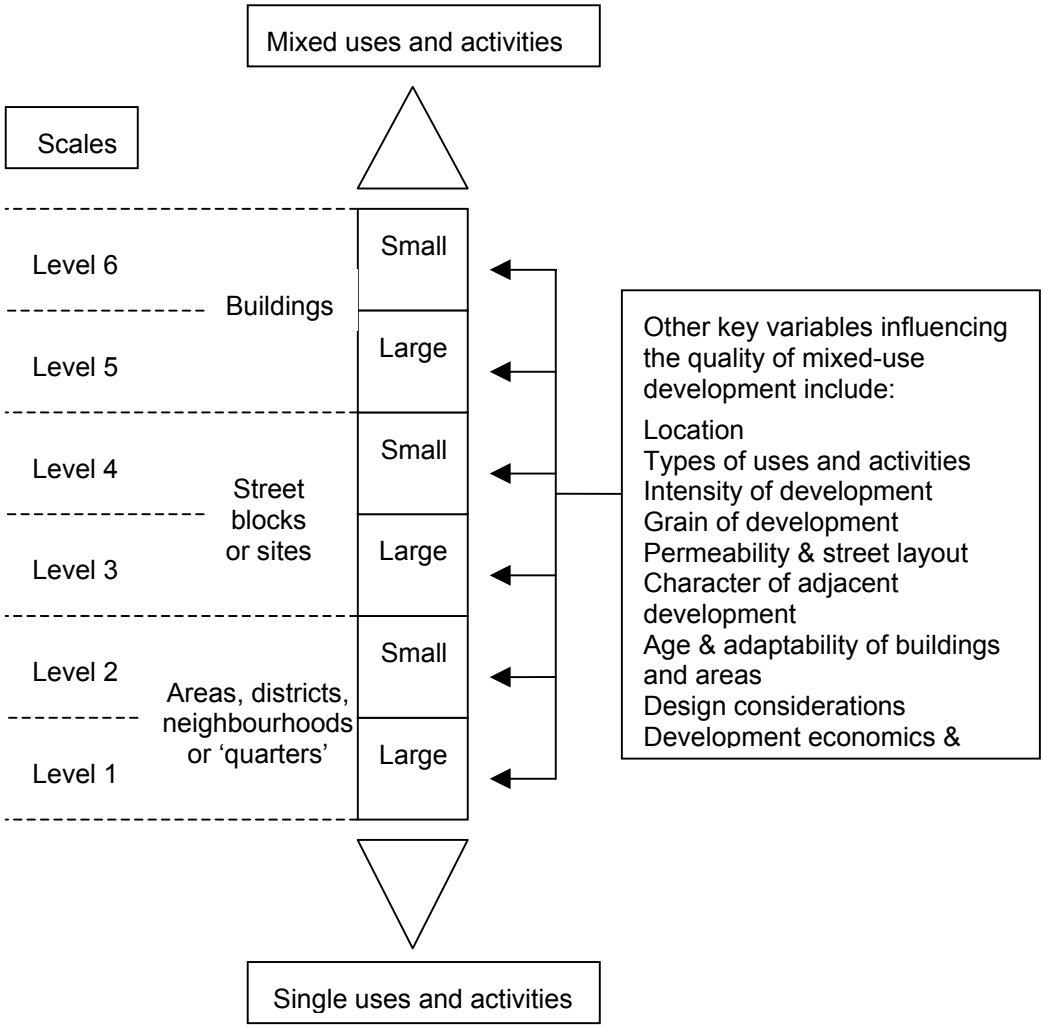



**Figure 3.1 The single/mixed-use continuum of development**

Source: Planning and Mixed-Use Development - What's the Problem? (Rowley 1998)

### 3.2.2 What are key local services and amenities?

A list of key local services and recommended distances to them are set out in **Table 3.1** below. This is taken from the University of the West of England document *'Sustainable Settlements - A Guide for Planners, Designers and Developers'* (Barton et al 1995). The thresholds from the guide are widely used and were used by the Urban Task Force to inform their final report. Although these thresholds will not be applicable to the whole of London, with its unique geography, network of town centres and density of development, they are relevant to more suburban areas.

**Table 3.1 Thresholds for distances to key local services in urban areas**

| Local facility | Maximum distance to new dwellings (m) |
|---|---|
| Primary School | 600 |
| Secondary School | 1,500 |
| Public House | 800 |
| Corner Shop | Not Specified |
| Local Shopping Centre | 800 |
| Post Office | Not Specified |
| Health Centre | 1,000 |
| Library | Not Specified |
| Church | Not Specified |
| Community Centre | Not Specified |
| Youth Club | Not Specified |
| Superstore/District Centre | 2,000 |
| Major Commercial Centre | 5,000 |
| General Hospital | 5,000 |
| Railway Station | 800 |
| Dominant Employment Location | 5,000 |

Source: Sustainable Settlements - A Guide for Planners, Designers and Developers (Barton et al 1995)

In addition to these facilities, open space constitutes a key amenity. Section 11.2 of this report sets out a hierarchy of open spaces and recommended walking distances.

### 3.2.3 What is the historical development pattern in London?

Over 2000 years the city has expanded outwards from its historic core to absorb a collection of once separate villages and settlements. For centuries the River Thames provided a significant trade barrier, with the wealthy cities of London and

Westminster being on the north bank. More recently, as London grew, the predominant winds favoured the expansion of Central London to the west, with more noxious industries to the east. London had no other significant geographical constraints such as coastline or high hills so the city spread in all directions in a roughly circular pattern, but with marked differences in wealth, which remain to this day.

In 1944 London's outward spread was contained by the establishment of the Green Belt. Subsequently Government instigated a programme of dispersal from London into new and expanded towns in the rest of the south-east. However, London's inherent attraction and economic strength led to a growth in population and development of new economic activity through the 1980s and 1990s.

This distinctive history has given London a unique set of spatial characteristics:

- It has grown as a relatively low-density, open city. Although some parts of the city are developed at high densities, overall London has low densities compared to other world cities and to most European capitals,. Two thirds of its land area and the majority of its population and workforce are in the suburbs. It has a network of open and water spaces.
- London has a well-established pattern of centres varying in size and function from the central area to local centres. Many of these centres have a long history as the focus of their community's activities, often dating back to the original settlements, such as Hampstead or Richmond. The centre (the City, Westminster and surrounds) has always been an immensely powerful place of government, trade and culture and has been strongly influenced by international forces. This pattern of centres can be described as 'polycentric'.
- London's patterns of growth have helped to create significant differences between the sub-regions of the city. For example, East London has been more industrial in character and owing to 20th century industrial decline has suffered greater problems of low income and social disadvantage than most areas in the west. London, north of the river, has historically accommodated the main centres of government, business and culture, compared to the more predominantly residential nature of South London.

### 3.2.4 What is the current pattern of development in London, as regards mixed-use and compactness?

The difficulty of defining what constitutes mixed-use development means that is very difficult to measure. In general, it is possible to say that London, particularly Central London, is unique so far as English towns and cities are concerned in the extent of mixed-use development, whereas development in suburban areas is predominately residential.

The compactness of development in London is greater than elsewhere in the UK. The demand for housing and office space is creating new development opportunities across London, and is enabling redevelopment where land has been underused. However, development is still at relatively low densities. Many suburban areas of London are low density (predominately detached and linked houses). Even in Central London, the average density is 78 dwellings per hectare,

around half the density of the Georgian terraces of Islington and Notting Hill, built around 200 years ago, or of some contemporary European developments (ODPM, 2002).

### 3.2.5 What are the current travel patterns in London?

See under Objectives 1 and 2.

## 3.3 How will the Baseline Evolve without Further Intervention?

London is expanding faster than any major European city - the population is estimated to increase by 700,000 people over the next 15 years. The demography of the city is also changing, as more people are forming single-person households. The net result of these two factors is that at least 23,000 new homes need to be completed every year. Lack of suitable development sites in and around London suggests that housing densities will have to increase to fit new homes into the land available.

Existing national and regional policies and initiatives aim to increase the density of development and encourage mixed-use. National Planning Policy Guidance Note 3: '*Housing*' (PPG3) recommends housing densities of 30-50 dwellings per hectare, and under the 'Density Direction' low density developments are now required to be referred to the Secretary of State. PPG3 also recommends that local planning authorities should facilitate mixed-use development and promote additional housing in town centres. The importance of mixed-use development is central to the White Paper '*Our Towns and Cities: The Future'* (DETR 2000a), and the LDA is committed to these principles. In February 2003 the Government launched the '*Communities Plan (Sustainable Communities: Building for the future)*' (ODPM 2003b). The Communities Plan outlines a new approach to how and what is built, including commitments to mixed-use development.

The way in which sustainable development is planned will also change. In the past, London has been divided into 'Central', 'Inner' and 'Outer' for strategic planning purposes. Today, that distinction has limited value. Many boroughs will start to look wider than their own boundaries, plan with their neighbours and work with the many institutions now operating at a sub-regional level. The development of sub-regions (North, East, South, West and Central) is likely to provide the strategic growth pattern for London in the future.

The sub-regional boundaries are to be regarded as permeable, where issues that transcend the boundaries can be considered in both the relevant sub regions. Several sub-regional partnerships have already begun to operate on these boundaries. This sub-regional approach could be relevant to planning key services, e.g. employment and public transport provision.

The anticipated baseline situation for travel is discussed under Objectives 1 and 2. With regard to the encouragement of mixed-use development at the neighbourhood level, a key issue will be the retention of existing facilities, e.g.

convenience shops for food. Data are not available on the extent to which existing facilities are under threat in London.

## 3.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to this objective by encouraging:

- development around existing and proposed public transport corridors;
- new development to optimise density;
- retention and enhancement of existing local services and amenities;
- provision of local services and amenity facilities in new developments, where appropriate;
- encouraging a mix of uses in new development, where appropriate; and
- provision of affordable housing and greater housing choice.

# 4. Objective 4 - Natural Resources

The objective is:

> *"To ensure that London makes more efficient use of natural resources and in particular, soil, mineral aggregates, water and energy."*

## 4.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is the current demand for and use of natural resources?
- What resources are available?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

## 4.2 Summarised Baseline Information

### 4.2.1 What is the current demand for and use of natural resources?

**Soil**

Greater London covers about 1,613km². Of this approximately 135km² is used for agricultural production and farm woodland. This is equal to about 8.4 percent of the regional land area, compared to the average for England of about 81 percent and 62 percent in the south east region. Developed (urban) land occupies approximately 70 percent of the land area; London is the most developed single region of the UK.

**Mineral Aggregates**

Mineral aggregates include sands, gravels, crushed rock and recycled building materials. A total of 9,563 thousand tonnes of aggregates are consumed in London every year (as at 2001). Just over half (5,243 thousand tonnes) is imported and the remainder comes from sales within the region (see **Table 4.1** below). The importation of aggregate into London consumes large amounts of energy through transportation. However, within London itself opportunities to source new materials from site are few due to the presumption in favour of development on previously developed land, although opportunities to recycle existing materials present on site are significant.

The origin of imported aggregates is shown in **Table 4.2**. The biggest sources are south east England, east England and the East Midlands. The proximity of these

areas to London will reduce environmental impacts due to transportation of imported aggregates.

**Table 4.1 Aggregate consumption in London 2001**

| | Aggregate mineral | Imports ('000 tonnes) | Sales within region ('000 tonnes) | Total consumption ('000 tonnes) |
|---|---|---|---|---|
| Sand and Gravel | Land won | 1,425 | 596 | 2,021 |
| | Marine dredged | 1,365 | 3,725 | 5,090 |
| | Total | 2,790 | 4,320 | 7,110 |
| Crushed Rock | Limestone/dolomite | 552 | | 552 |
| | Igneous rock | 1,847 | | 1,847 |
| | Sandstone | 54 | | 54 |
| | Chalk | | | |
| | Ironstone | | | |
| | Total | 2,453 | | 2,453 |
| | Total Aggregates | 5,243 | 4,320 | 9,563 |

Source: Annual report and aggregates monitoring 2001 (ODPM 2001)

**Table 4.2 Origin of primary aggregates imported into London 2001**

| | Aggregate Mineral | Amount imported ('000 tonnes) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | South West | South East | East of England | East Midlands | West Midlands | North West | Yorkshire and Humberside | North East | South Wales | North Wales | Outside England and Wales |
| Sand and Gravel | Land won | 1,425 | 0 | 1,038 | 387 | | | 0 | | | | | |
| | Marine dredged | 1,365 | | 132 | 1,233 | | | | | | | | |
| | Total | 2,790 | 0 | 1,169 | | | | 0 | | | | | |
| Crushed rock | Limestone/ dolomite | 552 | 549 | | | 3 | | | | | | | |
| | Igneous rock | 1,847 | 70 | | | 1,513 | | | | 5 | 1 | | 259 |
| | Sandstone | 54 | | | | | 0 | | 1 | | 52 | | |
| | Chalk | | | | | | | | | | | | |
| | Ironstone | | | | | | | | | | | | |
| | Total | 2,483 | 618 | | | 1,516 | 0 | | 1 | 5 | 52 | | 259 |
| | Total Aggregates | 5,243 | 619 | 1,169 | 1,621 | 1,516 | 0 | 0 | 1 | 5 | 52 | | 259 |

Source: Annual report and aggregates monitoring 2001 (ODPM 2001)

## Water

Consumption of water for Thames Water is above the average for the water industry in England and Wales. Companies operating in south-east England generally report higher consumption figures. This may be due to hotter and drier summers and greater use of water-hungry devices such as dishwashers, power showers and increased garden watering. Figures for consumption are higher in London than in the Thames Water area as a whole. This is attributed to the lower occupancy levels per property in London than in the remainder of the Thames supply region. Several studies have found that as occupancy levels increase, per capita consumption decreases. The larger number of flats in London leads to lower occupancy levels and thus higher per capita consumption. **Tables 4.3 and 4.4** provide information on the use of water.

**Table 4.3 Domestic water consumption per household, 1997/1998 to 2001/2002**

| Area | Domestic water consumption per household (litres per day) | | | | |
|---|---|---|---|---|---|
| | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
| Thames Water area unmeasured | 387 | 376 | 416 | 419 | 413 |
| England and Wales unmeasured | 380 | 376 | 387 | 388 | 395 |
| Thames Water area measured | 328 | 319 | 317 | 323 | 318 |
| England and Wales measured | 281 | 274 | 277 | 276 | 278 |
| Thames Water area average | 383 | 369 | 400 | 402 | 396 |
| England and Wales average | 369 | 362 | 368 | 367 | 371 |

Source: Security of supply, leakage and efficient use of water (Ofwat 2002)

**Table 4.4 Water supply loss due to leakage, 1997/1998 to 2001/2002**

| Area | Water supply loss due to leakage (litres per property per day) | | | | |
|---|---|---|---|---|---|
| | 1997-1998 | 1998-1999 | 1999-2000 | 2000-2001 | 2001-2002 |
| Thames Water | 267 | 227 | 193 | 200 | 250 |
| England and Wales | 174 | 154 | 143 | 139 | 146 |

Source: Security of supply, leakage and efficient use of water (Ofwat 2002)

## Energy

Energy consumption for London by sector and fuel type is detailed in **Table 4.5**. In the year 2000, Londoners consumed 154, 407 gigawatts hours of energy and

produced 41 million tonnes of carbon dioxide ($CO_2$). Less that one percent of London's energy came from renewable sources.

**Table 4.5 Greater London energy consumption 1999 - 2000, summary by fuel and sector**

| Sector | Fuel | | Energy (MWh) | Emissions (tonnes $CO_2$) |
|---|---|---|---|---|
| Commercial | | | 50,934,555 | 13,161,174 |
| | Oil | | 4,664,258 | 1,108,156 |
| | Coal | | 127,529 | 86,526 |
| | Gas | | 36,043,240 | 7,239,912 |
| | Electricity | | 10,099,528 | 4,726,579 |
| Domestic | | | 68,343,839 | 18,692,169 |
| | Oil | | 187,563 | 46,033 |
| | Coal | | 0.095 | 0.028 |
| | Electricity | | 18,705,945 | 8,754,382 |
| Transport | | | 32,666,664 | 8,547,816 |
| | Road | | 26,954,658 | 6,622,919 |
| | | motorcycles | 229,308 | 55,438 |
| | | cars | 18,393,032 | 4,468,951 |
| | | taxis | 544,530 | 137,772 |
| | | buses and coaches | 1,487,196 | 376,277 |
| | | light goods vehicles | 3,023,325 | 755,296 |
| | | heavy goods vehicles | 1,972,700 | 499,115 |
| | | articulated vehicles | 1,304,567 | 330,070 |
| | Rail | | 2,026,347 | 1,012,130 |
| | | Underground | 1,094,958 | 629,102 |
| | | LUL data (Grid supply) | 41,610 | 20,636 |
| | | LUL data (Grid supply) | 37,932 | 25,905 |
| | | LUL data (Grid supply) | 363,263 | 30,840 |
| | | LUL data (Lots Rd and Greenwich) | 652,153 | 551,721 |
| | | Overground | 931,389 | 383,028 |
| | | Electric | 690,278 | 323,050 |
| | | Diesel | 241,111 | 59,978 |
| | Shipping | | 50,868 | 11,889 |
| | Air | | 3,634,791 | 900,878 |
| | | Heathrow | 3,607,558 | 894,128 |
| | | London City | 27,234 | 6,750 |
| Total | | | 151,502,253 | 40,323,777 |

Source:The Mayor's State of the Environment Report for London (GLA, May 2003b)

Note 'commercial' includes industrial activity

* Totals exclude LUL electricity supplied via the National Grid, as this is already counted in commercial electricity supply data

Overall, energy consumption in Greater London has increased by around 16 percent between 1965 and 1999 (or approximately 0.5 percent per year). Over the same period there was a net fall in population of seven percent, indicating a significant increase in the per capita rate of energy consumption.

The combination of fuels and technologies and the structure of the distribution networks have also changed continually over the years, in response to changing demand patterns and technological development. The replacement of oil and solid fuels (coal and coke) with gas and to a lesser extent electricity is illustrated by **Figure 4.2**, as is the increase in the use of diesel for road transport.

After gas, aviation fuel has the second fastest long-term growth rate if all fuel supplied to outgoing flights is included (see dotted line in **Figure 4.2**). However, London's energy and $CO_2$ emissions inventory only includes aviation energy consumed in landing and take-off cycles (up to 1,000 metres) at airports inside Greater London, as shown in the top solid area in **Figure 4.2**. Total flight energy consumption is excluded because assigning different components of flight energy consumption to points of departure, arrival, stopover, and transfer is a complex problem. Meanwhile, all of the $CO_2$ emissions associated with these flights contribute to the continuing increase in global $CO_2$ concentration, and a proportion of this problem is certainly attributable to London.

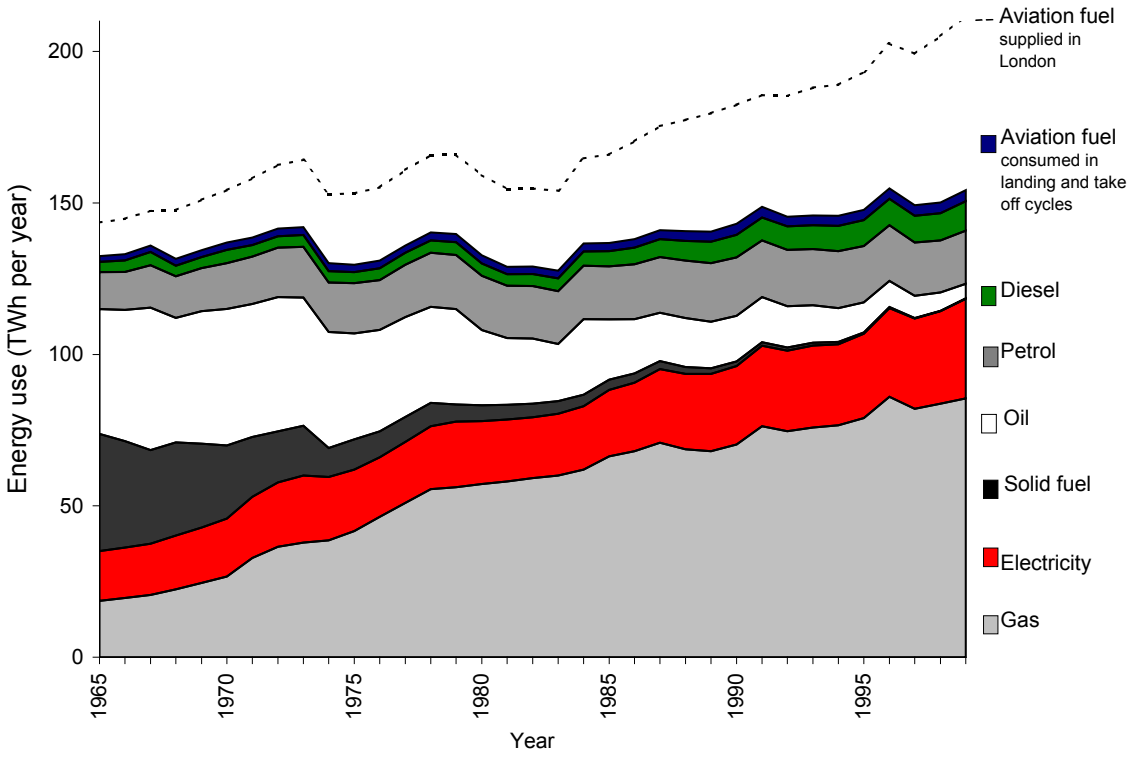



**Figure 4.2 Evolution of final energy consumption for different fuels in London, 1965-1999**

Source: The Mayor's Draft Energy Strategy (GLA, January 2003)

### 4.2.2 What resources are available?

**Soil**

There are some areas of high quality land in the London region, principally located to the west and east, providing opportunities for the production of high value horticultural crops. However, production of these crops appears to be concentrated to the north and south. About 2.4 percent of all land in the region is provisionally classified by DEFRA as Grade 1 and 2, excellent and very good quality land, compared to approximately 16 percent for England as a whole. The area of Grade 4 and 5, poor and very poor land, is low, at around 0.4 percent compared to the 21 percent average for England as a whole.

**Mineral Aggregates**

London needs a reliable supply of materials to support high levels of building and transport construction to 2016. There are relatively small reserves of mineral aggregates in London. Most aggregates come from other regions, including the South East and East. There are sufficient reserves to meet the target for production of ten percent of London's consumption within London, at least up until 2006.

More than 50 percent of construction and demolition waste is recycled for aggregate use as secondary aggregates.

**Water**

Most of London's water comes from the River Thames to the west of London and to a lesser degree from the River Lee in North London. Long-term predictions suggest that, due to global climate change, drier summers will become more frequent and weather conditions more variable, which may make it harder to utilise water from these sources. In the Outer London area, a succession of hot, dry summers and mild, dry winters in the early to mid 1990s resulted in groundwater levels falling too low. An increase in rainfall since then, particularly in the winter months, has helped to reverse this trend. However, climate change could well mean that water levels on a number of London's tributary rivers could be seriously affected in the future.

Reductions in surface water abstraction could be partially offset by increased ground water abstraction. A thick layer of chalk underlies London, with clay above and below it. Groundwater in the chalk forms the most extensive aquifer in Britain. Groundwater levels fell during the second half of the 19th century and first half of the 20th century, due to industrial abstraction, but with the decline in heavy industry levels have increased but are now at their highest since the 1890s. This presents a threat to building foundations and tunnels, particularly in Central London. Controlling this rise by pumping is one way of producing extra water needed in the capital. The Environment Agency estimates that this could produce an additional 30-50 megalitres per day. Some of the water is of poor quality and may be more suitable for uses such as cooling and toilet flushing.

Water companies have also been considering the option of desalinating water from the River Thames, and there may also be options for treating effluent from sewage treatment works to drinking water quality.

**Energy**

Whereas there are significant opportunities to increase the proportion of energy generated in London from renewable sources, the availability of non-renewable energy sources will be challenged by the decline of the UK's indigenous energy supplies of oil, gas, nuclear and coal. By 2020 the UK could be dependent on imported energy for three quarters of the country's total energy needs, and thus potentially more vulnerable to price fluctuations and interruptions to supply. The potential for renewable energy generation is explored in more detail under Objective 21.

## 4.3 How will the Baseline Evolve without Further Intervention?

Without any further intervention on the efficient use of natural resources the following may happen:

- Continued demand of primary, non-renewable aggregates from sources outside London;
- Increased demand for water, in line with projected growth in the number of households and economic activity; and
- Increased consumption of non-renewable energy resources as the population of London grows and the demand for transport increases with continued dependency on the car.

## 4.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by encouraging:

- re-use of aggregates and promoting more sustainable forms of construction so as to reduce the need for primary aggregates;
- water efficiency measures to be incorporated in developments both for commercial and domestic use;
- the incorporation of Sustainable Urban Drainage Systems in new developments;
- appropriate use of ground water;
- the incorporation of energy efficiency measures in all developments;
- exploitation of renewable energy resources within London; and
- additional development that may provide the impetus for investment in water mains renewal that could lead to lower levels of leakage over time.

# 5. Objective 5 - Biodiversity and Natural Habitat

The objective is:

> *"To protect and enhance existing biodiversity and natural habitats, and create new wildlife habitats."*

## 5.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What biodiversity and natural habitats currently exist in London?
- What enhancement and creation of wildlife is currently taking place?
- How will the baseline evolve without further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 5.2 Summarised Baseline Information

### 5.2.1 What biodiversity and natural habitats currently exist in London?

The Mayor's State of the Environment Report for London uses trends in the population of common birds as a biodiversity indicator. Birds are sensitive indicators of change as they are high in the food chain and reflect changes to the plants and animals that are their food; as they move about they indicate changes over large areas and their short life span means that their populations quickly reflect environmental changes. **Table 5.1** shows recent trends in bird populations in London.

The second indicator for biodiversity used in the State of the Environment Report is the area of Sites of Importance for Nature Conservation. The top wildlife sites in London are Sites of Metropolitan Importance for Nature Conservation. They include 33 Sites of Special Scientific Interest notified by English Nature as internationally or nationally important places for wildlife. A further 103 places have been identified as Sites of Metropolitan Importance for Nature Conservation, which total ten percent of London's area. The River Thames, at 23km$^2$, is London's largest wildlife site and is larger than all the Sites of Local Importance added together. There are a few boroughs where the Thames provides the bulk of the wildlife sites.

**Table 5.1 Recent trends in the population of 21 common birds in London**

| Species | Within London | | Outside London | |
|---|---|---|---|---|
| | Index in 2000 | 95% CI | Index in 2000 | 95% CI |
| Mallard | 79 | 59 -105 | 112 | 102 -123 |
| Feral pigeon | 93 | 79-109 | 103 | 87-121 |
| Wood pigeon | 152 | 129-178 | 114 | 107-121 |
| Collared dove | 135 | 108-168 | 141 | 131-151 |
| Swift | 115 | 81-162 | 117 | 102-135 |
| Wren | 118 | 100-139 | 97 | 92-101 |
| Dunnock | 106 | 84-133 | 102 | 95-109 |
| Robin | 130 | 110-153 | 106 | 102-111 |
| Blackbird | 79 | 71-88 | 101 | 98-105 |
| Song thrush | 79 | 60-103 | 79 | 73-84 |
| Mistle thrush | 62 | 41-93 | 80 | 72-88 |
| Blue tit | 143 | 122-168 | 106 | 101-111 |
| Great tit | 197 | 159-244 | 112 | 106-118 |
| Jay | 79 | 51-120 | 79 | 69-91 |
| Magpie | 120 | 102-141 | 113 | 105-120 |
| Carrion crow | 155 | 131-184 | 138 | 128-149 |
| Starling | 73 | 62-86 | 71 | 66-78 |
| House sparrow | 39 | 35-45 | 76 | 72-80 |
| Chaffinch | 161 | 116-223 | 110 | 106-114 |
| Greenfinch | 119 | 91-156 | 115 | 107-123 |
| Goldfinch | 66 | 40-109 | 90 | 81-99 |

**Source:** British Trust for Ornithology Research Report 311 (Newson and Noble 2003)

Note: Population of 21 common bird species within the Greater London Government Office Region and Southeast and East of England Government Office Regions combined. The index value for 2000 is presented (with associated 95 percent confidence intervals) relative to 1994, which is set to 100. As an example, the house sparrow in London, with an index value of 39 in 2000, declined by about 61 percent (55-65 percent) in the period 1994-2000 whereas the robin increased by 30 percent (10-53 percent). Bold figures are statistically significant trends. Species names where the trend differed between London and outside are in bold

London boroughs are expected to identify further places as Sites of Borough Importance for Nature Conservation, which are divided into two grades, and others as Sites of Local Importance. There are 315 Grade I Sites of Borough Importance for Nature Conservation totalling five percent of London's area, and a further 490 Grade II totalling three percent. Boroughs have also identified 484 Sites of Local Importance totalling one percent of London's area. **Table 5.2** below shows the total area of wildlife sites in each borough.

**Table 5.2 Area of wildlife sites in each London borough**

| Borough | Area (hectares) | | | | | |
|---|---|---|---|---|---|---|
| | The Thames | Metropolitan apart from the Thames | Borough Grade 1 | Borough Grade 2 | Local | Land not in a site |
| Barking and Dagenham | 171 | 142 | 168 | 70 | 32 | 3,504 |
| Barnet | 0 | 310 | 243 | 410 | 168 | 7,828 |
| Bexley | 391 | 551 | 270 | 175 | 106 | 5,878 |
| Brent | 0 | 170 | 123 | 97 | 40 | 4,046 |
| Bromley | 0 | 1,745 | 471 | 409 | 45 | 14,045 |
| Camden | 0 | 323 | 46 | 27 | 13 | 2,086 |
| City of London | 26 | 0 | 0 | 5 | 2 | 309 |
| Croydon | 0 | 783 | 424 | 296 | 118 | 7,783 |
| Ealing | 0 | 246 | 437 | 228 | 46 | 4,820 |
| Enfield | 0 | 612 | 451 | 189 | 80 | 7,398 |
| Greenwich | 317 | 313 | 337 | 130 | 18 | 4,549 |
| Hackney | 0 | 101 | 48 | 35 | 47 | 1,771 |
| Hammersmith and Fulham | 76 | 13 | 108 | 25 | 46 | 1,529 |
| Haringey | 0 | 94 | 184 | 158 | 114 | 2,493 |
| Harrow | 0 | 278 | 262 | 110 | 23 | 4,629 |
| Havering | 225 | 984 | 466 | 402 | 73 | 10,449 |
| Hillingdon | 0 | 1,140 | 288 | 335 | 59 | 10,857 |
| Hounslow | 65 | 440 | 314 | 268 | 132 | 4,925 |
| Islington | 0 | 10 | 32 | 15 | 23 | 1,411 |
| Kensington and Chelsea | 26 | 55 | 24 | 36 | 6 | 1,161 |
| Kingston upon Thames | 21 | 77 | 192 | 85 | 26 | 3,418 |
| Lambeth | 43 | 0 | 115 | 69 | 27 | 2,505 |
| Lewisham | 17 | 199 | 78 | 116 | 87 | 3,237 |
| Merton | 0 | 521 | 150 | 118 | 22 | 3,460 |
| Newham | 252 | 16 | 376 | 64 | 85 | 3,321 |
| Redbridge | 0 | 453 | 942 | 136 | 55 | 4,493 |
| Richmond upon Thames | 231 | 1,923 | 276 | 169 | 158 | 5,254 |
| Southwark | 104 | 48 | 145 | 157 | 22 | 2,655 |
| Sutton | 0 | 316 | 257 | 82 | 38 | 3,995 |
| Tower Hamlets | 180 | 52 | 140 | 51 | 23 | 1,930 |
| Waltham Forest | 0 | 736 | 114 | 10 | 41 | 3,707 |
| Wandsworth | 95 | 329 | 170 | 202 | 26 | 3,140 |
| City of Westminster | 55 | 404 | 21 | 18 | 24 | 2,139 |
| **Total** | **2,295** | **13,385** | **7,672** | **4,697** | **1,825** | **144,720** |

Source: GLA Biodiversity database 2003 (*unpublished*)

### 5.2.2 What enhancement and creation of wildlife is currently taking place?

There are examples of projects across London where wildlife sites have been created or enhanced. These include Camley Street Natural Park, a new Wetland Centre at Barnes as well as improvements in the Thames tideway and its habitats; the river is now one of the cleanest metropolitan rivers in the world. Many small enhancements are being incorporated in new developments, including increasing numbers of green roofs.

## 5.3 How will the Baseline Evolve without Further Intervention?

Possible changes in the baseline are as follows:

- About half the birds for which there is adequate information show no significant trend in numbers since 1994. The trend for other birds is mixed with populations of some increasing and others decreasing. These trends will be affected by factors within and outside London.
- It is assumed that existing areas of wildlife importance will be protected with no significant reduction in such space.

## 5.4 How can the Plan Contribute to the Achievement of this Objective?

This objective can be achieved through measures including the following:

- Ensuring that Sites of Importance for Nature Conservation and important species are protected;
- The creation of new wildlife sites - ensuring that wildlife sites, or measures to enhance wildlife are included where possible in new development and within existing development;
- Encouraging the enhancement of existing wildlife sites - through the continued maintenance and management of sites;
- Ensuring that all areas are within an accessible distance of a wildlife site; and
- Ensuring that new developments protect and enhance biodiversity through use of appropriate planning controls, conditions and agreements.

# 6. Objective 6 - Regeneration Schemes

The objective is:

> *"To maximise the benefits of regeneration schemes for local people."*

## 6.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is regeneration?
- What is the scale and nature of regeneration activity in London?
- What are the barriers to local people benefiting from regeneration schemes?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 6.2 Summarised Baseline Information

### 6.2.1 What is regeneration?

There is no universally agreed definition of regeneration. Although it is sometimes taken to mean only the physical development of land, buildings and transport systems, a more wide-ranging definition might be:

> *"Regeneration is a long term process of renewal, within which the social, economic, and environment conditions which lead to sustainable communities are actively supported. The regeneration process links needs and opportunities, economic growth, social cohesion and cultural development, health, social care and environmental sustainability.*
>
> *The basis of this approach lies in the concept of social inclusion - identifying communities and individuals at risk, under threat or experiencing social exclusion, and asserts their right to participate in and benefit from economic growth, social development and improved quality of life, if they so choose."*[1]

Regeneration does not concern only the public sector. It can and should involve genuine partnership between the public sector, business sector, voluntary sector

[1] Leicester City Council http://www.leicester.gov.uk

and the local community, attracting the private sector and voluntary and community sector resources.

Within regeneration there are two broad ranges of activity: 'economic regeneration' and 'social regeneration.' Economic regeneration encompasses measures to reverse economic failure in target areas. It includes physical improvements, attracting and growing businesses, skills and workforce development and environmental improvements. Social regeneration interventions are measures to tackle deprivation in target areas. They include improvements to the environment, education, health, employment, housing and community safety.

## 6.3 What is the Scale and Nature of Regeneration Activity in London?

**Table 6.1** below summarises recent expenditure across a range of programmes. Central Government and the European Union allocated £3.2 billion of public money directly to regeneration between 1995/2006 and 2000/2001. Regeneration programmes constitute a very small proportion of overall public expenditure. However, the figures in **Table 6.1** do not include spending in other areas, for example, mainstream services such as education and benefits that clearly contributes toward regeneration.

The London Development Agency (LDA) is now responsible for a single pot of funding for economic development programmes. Successful regeneration requires cross-service, cross-sector, multi-agency policy-making and delivery and the LDA works closely with public and private partners to deliver regeneration programmes. In addition to Central Government and European funding, significant resources for regeneration are also contributed by the private sector, other public bodies and the voluntary and community sectors. Together these can be a substantial and important component of all regeneration activity.

**Table 6.1 Sources of regeneration funding in London**

| Source | Funding (£'000) | | | | | | Total (£'000) |
|---|---|---|---|---|---|---|---|
| | 1995/96 | 1996/97 | 1997/98 | 1998/99 | 1999/00 | 2000/01 | |
| Single Regeneration | 25,992 | 59,431 | 115,276 | 150,239 | 178,876 | 202,898 | 732,712 |
| Community Funds[5] | | | | | 16,540 | 24,559 | 41,099 |
| London Borough Grants[6] | | | 3,200 | 3,200 | 3,200 | 3,300 | 12,900 |
| English Partnerships (PIP)[7] | | | 2,608 | 9,694 | 8,585 | 3,571 | 24,458 |
| English Partnership (Direct Dev) | | | 6,116 | 35,094 | 51,506 | 35,058 | 127,774 |
| New Deal[8] | | | | 10,421 | 30,829 | 34,196 | 75,446 |
| Housing Action Trusts[9] | 46,605 | 37,650 | 49,100 | 41,370 | 45,100 | 48,000 | 267,825 |
| New Deal for Communities | | | | | 246 | 8,801 | 9,047 |
| Estate Action | 90,143 | 86,449 | 84,131 | 67,864 | 45,748 | 46,320 | 420,665 |
| Local Competitiveness Budget | | | | | | 12,058 | 12,058 |
| Crime Reduction Programme[10] | | | | | 80 | 9,097 | 9,177 |
| Regional Selective Assistance[11] | | | | | | | 27,300 |
| ERDF Objective 2 94-96[12] | | | | | | | 39,000 |
| ESF Objective 2 94-96 | | | | | | | 11,500 |
| ERDF Objective 2 97-99 | | | | | | | 48,900 |
| ESF Objective 2 97-99 | | | | | | | 16,200 |
| Urban Park Royal ERDF & ESF | | | | | | | 5,000 |
| Urban Heart, East End | | | | | | | 5,000 |
| ESF Objective 3 97-2000 | | | | | | | 219,000 |
| ESF Objective 4 97-99 | | | | | | | 16,000 |
| SME 94-99 ERDF & ESF | | | | | | | 1,900 |
| Konver 93-99 | | | | | | | 8,300 |
| TECs [13] | 160,907 | 199,312 | 194,444 | 188,394 | 203,352 | 204,142 | 1,150,551 |
| Total | | | | | | | 3.3 bn |

Source: Rebuilding London's Future - Report of the London Assembly's Economic Development Committee (GLA, March 2002b)

[5] Expenditure through the 'Poverty and Deprivation Fund'.

[6] Expenditure under 'Regeneration and Sustainability' - information from the ALG.

[7] English Partnerships information from the LDA

[8] Figures from London and South East Region Employment Service.

[9] Expenditure figures on Housing Action Trusts, New Deal for Communities, Estate Action from GOL.

[10] Figures from the Home Office

[11] Estimate between August 1993 and November 2001, From GOL Annual breakdown not available

[12] EU funding figures all from GOL - all based on latest Euro rates.

[13] Information compiled by the Department for Education and Skills.

### 6.3.1 What are the barriers to local people benefiting from regeneration schemes?

The four main contributory factors to existing resource access problems identified by the GLA's Economic and Social Development Committee in a recent report (GLA, July 2003) are:

- the complexity of the funding process and the need for simplified access to initial and on-going funding;
- lack of flexibility within current and administrative and funding structures;
- the need to fully develop existing local community knowledge and skills to encourage a more sustained approach to regeneration initiatives; and
- the need to encourage a greater level of innovation and risk taking in regeneration programmes.

The Committee identified those who are most likely to be excluded from the benefits associated with regeneration schemes as:

- black and minority ethnic communities;
- people restricted by ill health and mobility difficulties;
- young people, disadvantaged through lack of suitable skills; and
- senior citizens.
- The Committee identified the following as key to achieving successful regeneration:
- take a holistic approach, physical improvements alone will not regenerate a deprived community;
- community involvement, through continuous dialogue and engagement, is central to successful regeneration;
- consultation about regeneration proposals must be undertaken sufficiently early to be meaningful, and clearly feed into the way that proposals are subsequently developed;
- local needs should be linked to local opportunities, for example helping local people to secure jobs and local businesses to secure contracts;
- a robust community network is essential to build capacity and deliver regeneration;
- provision of technical assistance to local people is important, so that they can make informed contributions to planning, architectural and other issues;
- there needs to be a long term approach with continuity of funding and policy; and
- there needs to be a co-ordinated approach to planning in those instances where cross-borough regeneration initiatives.

## 6.4 How will the Baseline Evolve without Further Intervention?

A number of initiatives are already underway which aim to maximise the benefits of regeneration schemes for local people.

The Neighbourhood Renewal Strategy has created a new framework for local regeneration policy and delivery through the establishment of Local Strategic Partnerships (LSPs). These are expected to bring together the public, private, voluntary and community sectors to provide a single over-arching local framework which will coordinate local regeneration activity. Community consultation and engagement, especially with commonly excluded groups such as black and minority ethnic communities, will be a key part of the LSPs' work. Although the precise character and constitution of LSPs in London is not yet clear, it seems likely that all will be borough based. Where the LDA does become involved in area-based regeneration - and this is likely to remain a significant, if reducing, part of LDA's direct programme commitments - then this will normally be in conjunction with the LSP concerned. This new, local focus should mean that regeneration becomes more targeted to local needs and priorities.

London's Economic Strategy '*Success Through Diversity*' sets out a range of actions that are intended to ensure that regeneration benefits local people. Actions include:

- the LDA will seek to build effective working relationships with the voluntary and community sector, developing a compact between the sector and other London-wide agencies and maintaining close contact with the London Funders Group;
- the LDA will value the distinctive contribution of faith communities to the processes of social inclusion and regeneration; and
- where possible, the LDA will ensure that its interventions at area or neighbourhood level enable and empower the development of autonomous, asset-based community regeneration organisations.

## 6.5 How can the Plan Contribute to the Achievement of this Objective?

It is apparent that much is already being done to help ensure that local people benefit from regeneration in the future. The London Plan can further contribute to this objective by:

- promoting the involvement of the community in regeneration schemes;
- encouraging the assessment of potential impacts on the local community as part of the regeneration process;
- promoting the regeneration benefits of developments in the Opportunity Areas and Areas of Intensification;

- encouraging a co-ordinated approach to cross-boundary regeneration schemes; and
- encouraging regeneration schemes that are grounded in local needs.

# 7. Objective 7 - Clean Technology

The objective is:

> *"To actively promote new clean technologies, particularly potential growth sectors of the environmental economy, renewable energy production and pollution control."*

## 7.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- How is the environmental economy defined?
- What is the current position with this sector?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 7.2 Summarised Baseline Information

### 7.2.1 How is the environmental sector defined?

The environmental sector encompasses a wide range of activities, including waste management, recycling, water supply and treatment, energy management, renewable energy supply, air pollution control, contaminated land remediation, food chain enhancement and environmental monitoring.

### 7.2.2 What is the current position with this sector?

The global market for environmental goods and services is currently estimated at $335bn - comparable with the pharmaceuticals industry. In London, this sector has been little considered up to now and offers enormous growth potential. Data on the current size of this sector in terms of employment are not available.

## 7.3 How will the Baseline Evolve without Further Intervention?

At the global level, the environmental goods and services sector is forecast to double by 2010. The LDA has recognised the 'green economy' as a significant opportunity and its Economic Strategy identifies a number of actions to take the sector forward, including:

- ongoing work to audit the current position of London's environmental sector, to establish its potential in more detail and to examine initiatives and experience elsewhere;
- engaging with key partners to promote and support waste reduction, waste reclamation and sustainable waste treatment initiatives. In particular, the LDA, in conjunction with the GLA, will lead initiatives with key partners to develop both high technology and labour intensive 'Jobs from Waste' schemes;
- promoting efficient energy use and encouraging renewable energy production. The LDA will investigate approaches to improving energy efficiency and reducing consumption as a means of increasing the competitiveness of London businesses. As part of this work, the LDA will promote new businesses using environmentally friendly technologies and the Agency will support organisations, particularly SMEs, in adopting best practice in the efficient use of resources;
- working with Team London and London's inward investment agencies to promote opportunities for the attraction, development and growth of environmental industries;
- promoting green business management practices including those relating to open spaces, waste reduction and reclamation, energy efficiency, air quality and noise pollution and control. The LDA will initiate demonstration projects with business organisations to raise business awareness of green management practices including waste management, energy efficiency and noise and pollution control. It will sponsor and promote the Mayor's Environmental Business Marque; and
- collaborating with TfL and the GLA to promote cleaner, quieter and more efficient energy technologies and encourage their up-take by business.

## 7.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by encouraging:

- protection of existing sites that are suitable for activities that fall within the environmental sector;
- identification of new sites that are suitable for activities that fall within the environmental sector; and
- proposals and policies that will help encourage growth in the environmental sector.

# 8. Objective 8 - Tourism

The Objective is to:

> *"Develop London's tourism industry in ways that are economically, socially and environmentally beneficial."*

## 8.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is sustainable tourism?
- What is the current position of London's tourism industry?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 8.2 Summarised Baseline Information

### 8.2.1 What is sustainable tourism?

The English Tourism Council has defined sustainable tourism as being about:

> *"…managing tourism's impacts on the environment, communities and the economy to make sure that the effects are positive rather than negative for the benefit of future generations. It is a management approach that is relevant to all types of tourism, regardless of whether it takes place in cities, towns, countryside or the coast."*[2]

A major Government consultation 'Tourism - towards sustainability' (Department for Culture, Media and Sport 1999) suggested that to achieve sustainable tourism, action is necessary on six different fronts to:

- establish an effective policy framework;
- maximise tourism's potential to benefit local communities;
- manage visitor flows;
- address the transport issues associated with tourism;
- address the planning issues associated with tourism; and

[2] English Tourism Council http://www.wisegrowth.org.uk/

- build partnerships between public, private and voluntary sectors.

### 8.2.2 What is the current position of London's tourism industry?

London attracts an estimated 30 million tourists spending £15 billion each year. That is equivalent to about 12 percent of London Gross Domestic Product, with nearly half a million full-time and part-time jobs supported. London is also a gateway to the rest of the country with more than half (56 percent) of the overseas visitors to the UK spending time in the capital.

Tourism's contribution to the London economy is almost as big as that of manufacturing, in terms of value. It is heavily dependent on international visitors.

Key facts are set out below:

- some eight percent of London's employment is generated by tourist related activities;
- expenditure by staying visitors was over £7.9bn in 1999;
- day visitors are estimated to have spent a further £3.8bn in 1998;
- overseas visitors account for 30 percent of all theatre tickets bought in the West End;
- visitors account for 25 percent of all Underground passengers in the central area;
- visitors account for 15 percent of fare income for public transport in London;
- visitors account for 25 percent of all taxi fares; and
- visitors spent at least £1.53bn on shopping in London in 1999.

Recent trends in terms of visitors and expenditure are shown in the **Table 8.1** below.

The sustainability of London's tourism is adversely affected by uneven distribution of facilities. Although major cultural attractions have recently spread to areas such as the South Bank, Central London, particularly the West End, is still home to most tourist attractions and hotels. This increases pressure on Central London and means that many of London's communities are unable to share in the benefits that tourism brings.

**Table 8.1 Recent trends in tourism in London**

| | 1998 | 1999 | 2001 (est) | 2000 | 2002 (est) |
|---|---|---|---|---|---|
| VISITS (millions) | | | | | |
| Domestic | 11.6 | 14.8 | 16.6 | 18.5 | 17.0 |
| Overseas | 13.5 | 13.2 | 12.2 | 13.1 | 12.7 |
| Total Visits | 25.1 | 28.0 | 28.8 | 31.6 | 29.7 |
| NIGHTS (millions) | | | | | |
| Domestic | 27.0 | 34.9 | 38.1 | 42.4 | 39.1 |
| Overseas | 91.6 | 85.8 | 74.4 | 82.0 | 76.0 |
| Total Nights | 118.6 | 120.7 | 112.5 | 124.4 | 115.1 |
| EXPENDITURE (£) | | | | | |
| Domestic | 1,055 | 1,199 | 2,984 | 3,070 | 3,220 |
| Overseas | 6,738 | 6,708 | 5,788 | 6,902 | 6,251 |
| Total Expenditure | 7,793 | 7,907 | 8,772 | 9,972 | 9,471 |

All figures in millions *- Overseas figures from 1999 include more accurate figures for the Irish Republic and are NOT directly comparable with that for previous years. * Domestic figures from 2000 reflect data derived from changed survey methodology and are NOT directly comparable with that for previous years
Sources:
Domestic Tourist Figures: United Kingdom Tourism Survey & LTB estimates
Overseas Tourist Figures: International Passenger Survey & LTB estimates

## 8.3 How will the Baseline Evolve without Further Intervention?

Future levels of tourism in London are difficult to predict but may be adversely affected by factors such as global uncertainty, terrorist threat and growing competition from rival destinations. London's world market share has been gradually decreasing throughout the 1980s and 1990s.

Sustainable tourism is being promoted through national initiatives such as '*Tomorrow's Tourism: A growth industry for the new Millennium*' (Department for Culture, Media and Sport 1999), the Government's strategy for tourism in England. The English Tourist Council is required to have regard to sustainability issues in its work and has produced a sustainable tourism strategy. Policies of the Government's strategy include:

- promoting the inclusion of sustainable tourism considerations in Local Agenda 21 strategies;
- encouraging tourism businesses to procure goods, services and staff locally;
- encouraging tourism management partnerships between local authorities, tourism operators and local communities;

- promoting the development of effective visitor management plans;
- encouraging tourist and leisure site managers to produce green transport plans; and
- working to ensure that sustainability issues are integrated into staff and student training programmes.

Tourism in London will benefit from the Mayor's three year Strategic Plan for Tourism which provides a blueprint for long term growth in the sector. The Plan contains actions to promote tourism in London, such as providing clearer leadership, extra public funding and working to build an international convention centre, plus specific actions to promote sustainable tourism, including:

- promoting the distribution of the benefits of tourism across London;
- research and identification of the issues that affect SMEs and BME businesses in the tourism sector;
- raising the standard of the public realm to improve London's appeal to visitors in a sustainable manner and to bring additional benefits to local communities; and
- identify and address the issues relating to London's transport and encourage action to benefit visitors.

The London Tourist Board has also recommended the establishment of Tourism Action Zones. These are a mechanism to stimulate and manage tourism activities by attracting business investment, through targeted marketing initiatives in new locations or by providing a framework to manage high volume visitor areas, including those that impact on residential areas. Boroughs should produce tourism strategies and outline any plans for Tourism Action Zones in these and Unitary Development Plans.

## 8.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can help achieve this objective by:

- encouraging the provision of hotel accommodation in areas that are well served by public transport;
- encouraging the provision of new tourism facilities in locations that contribute to sustainable development;
- encouraging Tourism Management Zones to mitigate the impacts of tourism on the host community; and
- protecting and enhancing London's distinctive qualities (e.g. the Thames and cultural assets).

# 9. Objective 9 - Inward Investment

The objective is:

> *"To ensure that inward investment projects are environmentally, socially and economically sustainable."*

## 9.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- How is sustainable inward investment defined?
- What is the nature of inward investment into London?
- How will the baseline evolve without further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 9.2 Summarised Baseline Information

### 9.2.1 How is sustainable inward investment defined?

DEFRA's Guidance to Regional Development Agencies on sustainable development states:

> *"Previously, while providing increased affluence and social benefits, economic development has also led to environmental problems and decline - climate change and global warming; air, land and water pollution; and loss of biodiversity. Cleaning up the environment has then had a cost. Frequently, it has been society rather than the individual polluter or their customer that has had to bear these costs. Failure to consider wider issues has also created social problems, through social exclusion and damage to health. Sustainable development is about looking for a different model, where quality of life is enhanced by safeguarding the environment while still having economic growth and social progress."*[3]

The above guidance therefore suggests that sustainable inward investment is that which achieves economic, social and environmental objectives.

[3] Defra (1998). http://www.defra.gov.uk/environment/sustainable/rda/guidance/

### 9.2.2 What is the nature of inward investment in London?

London is the UK's leading beneficiary of foreign direct investment projects and investment successes. It is the most successful city in Europe at attracting oversees companies.

The inward investment agency for London is the London First Centre. In 2002-2003, London First Centre secured a total of 68 new projects, resulting in the creation of around 1,567 new jobs for London. The inward investment agency for the Thames Gateway is Invest in Thames Gateway London Ltd.

Data on the extent to which inward investment has historically contributed to sustainable development in London are not available.

## 9.3 How will the Baseline Evolve without any Further Intervention

The Economic Development Strategy for London is set out in the LDA document '*Success Through Diversity*' (LDA 2001); it is endorsed by partner organisations such as the London Chamber of Commerce and Industry and the Employment Service. Sustainable development is a core principle and cross-cutting theme of the Strategy, which contains many actions to promote sustainable inward investment in London.

It is assumed that the London First Centre and Invest in Thames Gateway London Ltd (ITGL) will continue to promote London as a location for inward investment.

## 9.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can help to achieve this objective by:

- encouraging UDPs to provide the appropriate policy context for sustainable inward investment, e.g. suitable sites and premises and infrastructure provision; and
- encouraging inward investment in forms that benefit the host community, e.g. through public consultation at an early stage and project design.

# 10. Objective 10 - Rivers and Canals

The objective is:

> *"To improve river and canal ecological and amenity qualities, and to seek more sustainable uses thereof."*

## 10.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is the current ecological quality of rivers and canals?
- What is the current amenity quality of rivers and canals?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 10.2 Summarised Baseline Information

### 10.2.1 What is the current ecological quality of rivers and canals?

During the last century the traditional approach to flood defence and river management was to enclose rivers within concrete channels or culverts. This process results in a uniform and sterile channel of negligible ecological or social value and high long-term maintenance costs. Some rivers have been lost altogether, pushed underground to become part of the city's sewerage system. These include the Falcon Brook and the Effra in South London, and the Westbourne, Tyburn, Fleet and Hackney Brook north of the Thames.

Rivers are awarded grades from A (very good) to F (bad) for both their chemical and biological water quality. **Table 10.1** below indicates that the majority of rivers in London have water quality which is 'good' or 'very good'.

Chemical river quality has varied throughout the 1990s due to changes in rainfall intensity and corresponding impacts on flow intensity: in drought conditions flow intensity is lower, water is less diluted and water quality is thereby reduced. A significant improvement in the quality of specific discharges to the Thames and its tributaries has contributed to a distinct improvement in water quality between 1990 and 1995.

**Table 10.1 Recent river water quality in London**

| Measure of water quality and year | Percentage of rivers in London(%) | | | |
|---|---|---|---|---|
| | Good or very good | Fairly good or fair | Poor | Bad |
| Chemical (2001) | 36.6 | 51 | 12 | 0.3 |
| Biological (2000) | 30 | 53.6 | 16 | 0.3 |

Source: Environment Agency

Biological water quality tends to be poorer in rivers flowing through heavily urbanised areas. The main influences are treated sewage effluent, urban runoff and periodic discharges of poor-quality water. The lowest biological river quality occurs directly below the outfall of sewage treatment works. The highest water quality is found in river headwaters e.g. the Carshalton arm of the Wandle.

### 10.2.2 What is the current amenity quality of rivers and canals?

In order to examine the amenity quality of rivers and canals in London, results from studies examining the amount of litter along the Thames and London's Canals have been considered.

The cleanliness of waterways is graded based on the Environment Agency's General Quality Aesthetics methodology and the Environmental Protection Act (1990) Code of Practice on Litter and Refuse:

Grade A Absent: no evidence of litter anywhere

Grade B Trace: predominately free from litter apart from a few small items

Grade C Some at intervals: widespread distribution of litter with minor accumulations

Grade D Objectionable amount: heavily littered, with a number of significant accumulations

Grades are appraised for 100-metre reaches on the canals and 250-metre reaches on the Thames at a single point during the year. From these assessments a Cleanliness Index is generated which provides a scale from 0 (all reaches Grade D) to 100 (all reaches Grade A and completely clear of litter).

An appraisal in London took place in October 2002. Overall, approximately 70 percent of the stretches surveyed were of the acceptable Grade B or above. However, only two of the 431 stretches were awarded Grade A and 30 percent were of an unacceptable standard at Grade C or below, including 47 Grade D stretches.

**Table 10.2** shows that the foreshore in the majority of boroughs have a Cleanliness Index score above 50, but with only the foreshore in the Royal Borough of Kensington and Chelsea achieving the desired minimum score of 67 (good). Conversely, the foreshore in the Boroughs of Lewisham and Southwark is unacceptable and bordering on the 'objectionable' classification. Combined, the

unacceptable and 'objectionable' areas make up approximately 25 percent of the total.

**Table 10.3** shows the cleanliness of London's canals. A Cleanliness Index of 63 was recorded for the entire canal network within the Greater London area, with 70 percent of the towpaths, canal surface and the offside achieving Grade B or above. The results reveal that clusters of 'objectionable' grades (C and D) are more likely to be found on the offside of the canal and along the towpath than in the canal itself. The worst affected areas can be found on the western section of the Grand Union Canal in the Boroughs of Ealing and Hillingdon. There are sporadic minor clusters along the length of the Regent's Canal.

**Table 10.2 Cleanliness Index of the Thames foreshore by borough (where 0 = all stretches have an objectionable amount of litter and 100 = all stretches are absent of litter)**

| Borough | No. of stretches surveyed | Cleanliness Index |
|---|---|---|
| Havering | 25 | 63 |
| Barking and Dagenham | 17 | 61 |
| Newham | 10 | 57 |
| Tower Hamlets | 43 | 41 |
| City of London | 9 | 59 |
| Westminster | 18 | 56 |
| Kensington and Chelsea | 9 | 67 |
| Hammersmith and Fulham | 29 | 55 |
| Hounslow | 38 | 61 |
| Bexley | 59 | 51 |
| Greenwich | 25 | 43 |
| Lewisham | 3 | 33 |
| Southwark | 29 | 36 |
| Lambeth | 13 | 54 |
| Wandsworth | 23 | 48 |
| Richmond | 43 | 64 |

Source: Cleanliness Index of the Waterways of Greater London (Thames21, unpublished)

**Table 10.3 Cleanliness Index of the London canal network by borough (where 0 = all stretches have an objectionable amount of litter and 100 = all stretches are absent of litter)**

| Borough | No. of stretches surveyed | Cleanliness Index | | | |
|---|---|---|---|---|---|
| | | Overall | Towpath | Canal | Offside |
| Brent | 35 | 59 | 56 | 56 | 64 |
| Camden | 28 | 58 | 64 | 52 | 57 |
| Ealing | 178 | 64 | 63 | 62 | 67 |
| Hackney | 30 | 64 | 67 | 62 | 64 |
| Hammersmith and Fulham | 17 | 69 | 61 | 71 | 75 |
| Hillingdon | 138 | 62 | 58 | 64 | 65 |
| Hounslow | 31 | 62 | 58 | 60 | 67 |
| Islington | 10 | 71 | 67 | 67 | 80 |
| Kensington and Chelsea | 20 | 64 | 67 | 58 | 67 |
| Tower Hamlets | 90 | 61 | 66 | 61 | 61 |
| Westminster | 57 | 65 | 68 | 56 | 65 |
| Entire network | 588 | 63 | 63 | 61 | 65 |

**Source** Thames21 Cleanliness Index of the Waterways of Greater London (unpublished)

## 10.3 How will the Baseline Evolve without Further Intervention?

It is anticipated that current improvements to sewage treatment works, and the implementation of river restoration schemes to improve habitats and the shape of river channels, should lead to an improvement in the biological quality of the rivers in London.

Several schemes to restore culverted rivers to a more natural state have already been completed (see **Table 10.4** below). There are also several schemes in place to tidy up London's canals and rivers and improve their overall amenity.

It is assumed that such initiatives will continue.

**Table 10.4 Non-tidal rivers restored in London between 01 April 2001 and 31 March 2002**

| Watercourse | Location | Detail of work | Length restored (m) |
|---|---|---|---|
| River Quaggy | Chinbrook Meadows (LB Lewisham) | Restoration of flooding to previous flood meadows, removal of previous concrete channel and construction of a more natural one. Construction of footpaths and educational facilities, ponds and wetlands (Environment Agency in partnership). Partners contributing funds were London Borough of Lewisham and Groundwork TGLS. Other partners were the Quaggy Waterways Action Group and residents' associations. | 400 |
| River Ravensbourn | Norman Park (LB Bromley) | Removal of part of previous culvert and construction of a more 'natural channel'. Installation of bridges and footpaths along with landscaping works (Environment Agency in partnership). Partner contributing funds was London Borough of Bromley. | 300 |
| River Crane | Feltham Marshalling Yard Mill Stream (LB Hounslow) | Redevelopment of former railway marshalling yard into business use, including diversion of formerly culverted watercourse to boundary of site and re-establishment of natural channel (development negotiation over Environment Agency consent to build a culvert). | 100 |
| Pool River | Catford (LB Lewisham) | Construction of fish spawning/bypass channel. Partner was London Borough of Lewisham. | 50 |
| River Wandle | Morden Hall Park, (LB Merton) | Construction of weirs to recreate previous wetland areas/flood meadows. Partner was National Trust. | 20 |
| River Wandle | Wandle Park (LB Merton) | Removal of concrete channel and construction of a more 'natural' one, with the treatment of surface water runoff by reed beds. Partners contributing funds were London Borough of Merton, Groundwork Merton and English Partnerships. Money also came via a Section 106 agreement from Sainsbury's and other developers. | 200 |
| Spring Brook | Downham (LB Bromley) | Removal of concrete channel and construction of a more 'natural' one. Partner contributing funds was London Borough of Bromley. | 95 |

Source: Length of non-tidal rivers restored between 1 April 2001 and 31 March 2002 (Environment Agency *unpublished*)

### 10.3.1 How can the Plan Contribute to the Achievement of this Objective?

The Plan could help achieve this objective by:

- encouraging the protection and enhancement of existing areas of ecological importance;
- encouraging the provision of facilities to encourage walking and cycling in order to increase the amenity value of such areas;
- protecting and enhancing access along rivers;
- protecting existing wharves in order to encourage the use of rivers for the transportation of goods and people; and
- requiring removal of culverts and reinstatement of river corridors.

# 11. Objective 11 - Open Space

The objective is:

> *"To protect, maintain, restore and enhance the quality of London's open spaces, to create new open space as appropriate, and to ensure that access to open space and the wider public realm is maintained."*

## 11.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is open space and why is it important in London?
- What is the current situation?
- What are London's open space requirements?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 11.2 Summarised Baseline Information

### 11.2.1 What is open space and why is it important in London?

London's open spaces include green spaces such as parks, allotments, commons, woodlands, natural habitats, recreation grounds, playing fields, agricultural land, burial grounds, amenity space and children's play areas (including hard surfaced playgrounds), and accessible countryside in the urban fringe. Civic spaces, such as squares, piazzas and market squares also form part of the open space network. The variety and richness of London's open spaces contribute hugely to its distinctive and relatively open character. Open spaces provide a valuable resource and focus for local communities, can have a positive effect on the image and vitality of areas and can encourage investment. They provide a respite from the built environment and an opportunity for recreation. They promote health, well being and quality of life. They are also vital facilities for developing children's play and social skills.

### 11.2.2 What is the current situation?

The Mayor's State of the Environment Report for London notes that Green Belt forms 22 percent of the area within the Greater London boundary, whilst 9.6 percent of Greater London is Metropolitan Open Land (MOL). The designation of

MOL is unique to London and protects strategically important open spaces within the urban area (e.g. Richmond Park). There is also a large variety of locally important open spaces that form part of the wider network, such as recreational open space and allotments.

### 11.2.3 What are London's open space requirements?

As London becomes more compact and intensive in its built form, the value of open spaces will increase. Access is particularly important where open spaces are in short supply., This is often the case in areas of regeneration, where lack of local green spaces is exacerbated by fewer private gardens and fewer opportunities for people to travel large distances to access green areas.

**Table 11.1** provides a benchmark for open space provision across London. It categorises spaces according to their size and sets out a desirable distance that Londoners should travel in order to access each size of open space. For example, the hierarchy suggests that all Londoners should have easy access to a local park or open space within 400 metres from their home. Using these standards to map public open space provision, the hierarchy should provide an overview of the broad distribution of public open space provision across London, highlight areas where there is a shortfall and facilitate cross borough planning and management of open space. Work to identify Areas of Deficiency in access to open space is in progress.

**Table 11.1 London's Open Space Hierarchy**

| Open space categorisation | Size guideline (hectares) | Desirable distance from homes to open space (km) |
|---|---|---|
| Regional Parks | 400 | 3.2 to 8 |
| Metropolitan Parks | 60 | 3.2 |
| District Parks | 20 | 1.2 |
| Local Parks and Open Spaces | 2 | 0.4 |
| Small Open Spaces | Under 2 | Less than 0.4 |

Source: The Draft London Plan (GLA, June 2002)

## 11.3 How will the Baseline Evolve without Further Intervention?

It is assumed that land in the Green Belt and MOL will continue to be protected from inappropriate development. It is also assumed that UDPs continue to protect areas of local importance. Open Space Strategies are to be prepared by the boroughs and will audit provision and assess needs to protect, create and enhance all types of open spaces in their area.

## 11.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could help achieve this objective by:

- encouraging the protection of existing open space;
- encouraging the provision of additional open space;
- improving the access to and quality of open space;
- providing a strategy for boroughs to work against in order to judge open space need; and
- providing a framework to assist boroughs in preparing Open Space Strategies to protect, create and enhance all types of open space in their area.

# 12. Objective 12 - Health

The objective is:

> *"To improve the health of Londoners, reduce health inequalities and promote healthy living."*

## 12.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is the 'Health Evidence Base' in London and what are the key health indicators?
- What is the state of London's health?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 12.2 Summarised Baseline Information

### 12.2.1 What is the 'Health Evidence Base' in London and what are the key health indicators?

The London Health Strategy (London Health Commission 2000) uses a series of high-level health indicators to measure the health of London. These are:

- unemployment;
- ethnicity and unemployment;
- educational attainment;
- proportion of homes judged unfit to live in;
- domestic burglary rate;
- air quality;
- road traffic accidents;
- life expectancy at birth;
- infant mortality rate; and
- proportion of people with self-assessed good health.

**Figure 12.1** presents the determinants of health in terms of layers of influence, starting with the individual and moving to wider society. Included in these layers are the first seven of the ten indicators of the London Health Strategy. The indicators have been designed to highlight significant aspects of the key factors affecting health. The final three indicators, life expectancy at birth, infant mortality rate and the proportion of people with self-assessed good health, are rather different in nature and purpose, and fall outside the scope of this particular diagram. They offer a means of judging health outcomes themselves, that is, the results for individuals and communities of the interplay of the different influences shown in the diagram.

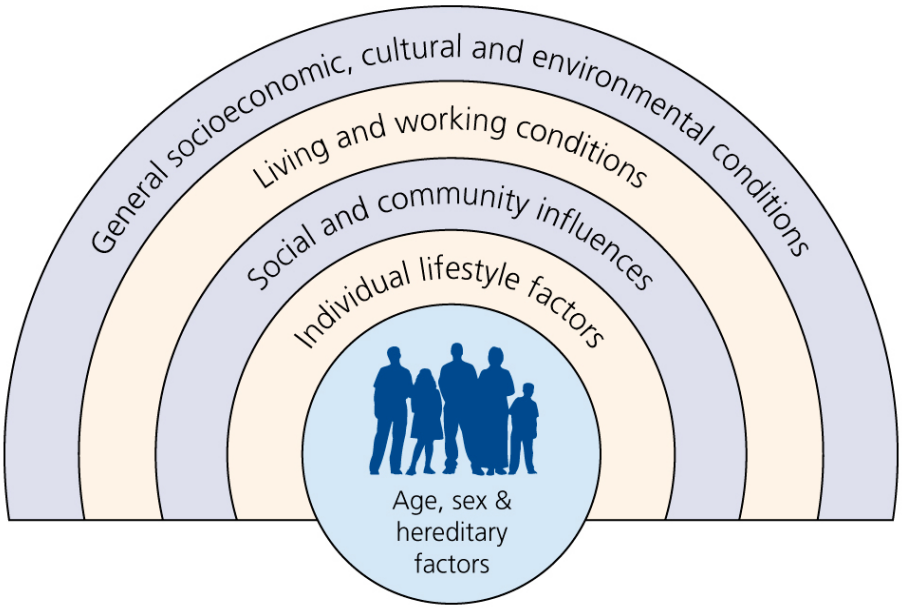



**Figure 12.1 Determinants of health (in terms of layers of influence)**

Source: Policies and strategies to promote social equity in health (Dahlgren and Whitehead 1991)

### 12.2.2 What is the state of London's health?

**Table 12.1** summarises recent trends for the ten indicators in London. All seven health determinants have improved since the mid-1990s but for unemployment and burglary, there has been a slight deterioration compared to the previous year. The unemployment figures reflect the recent economic slowdown. The burglary rate and street crime rose after the terrorist attacks of September 11th 2001, but it seems that the crime wave following these events is now under control. Life expectancy is generally increasing nationally and in London. Infant mortality is decreasing as well. There is insufficient information to determine trends in self-assessed health status, although a previous report showed it had remained constant.

The general improvement since the mid 1990s must be weighed against doubts about the value of some of the indicators (e.g. GCSE performance), and setbacks

in other respects (ozone increases, ethnic inequality). Any economic slowdown could have a negative effect on some of the determinants.

**Table 12.1 Determinants of health and health outcomes for London : Recent trends**

| Indicator | London Trend |
|---|---|
| Unemployment rate | Rose in 2002, after an eight year fall |
| Unemployment rate among black and ethnic minority people | New categories - not comparable with earlier years. Effects of 2002 economic slowdown not yet known. Gap with white people has widened since 1985. |
| Percentage of pupils achieving 5 GCSE grades A*-C | Still improving |
| Proportion of homes judged unfit to live in | Falling slowly since 1997 (improved fitness) |
| Burglary rate per 1000 resident population | Rose or stabilised in 2001/02, after a seven year fall. |
| Air quality indicators - NO2 and PM10 | Subject to weather changes; improved for most pollutants since 1996, but ozone concentrations worse. |
| Road traffic casualty rate per 1000 resident population | Improved in 2001 over previous year, and 6% below 1994-1998 average |
| Life expectancy at birth | The previous report showed that life expectancy is generally increasing nationally and in London. However, these trends need to be revisited when new population estimates for 1991-2000 based on the 2001 Census are available. |
| Infant mortality rate decreasing in London and nationally. | Decreasing in London and nationally. |
| Proportion of people with self-assessed good health. | Remained more or less constant from 1999-2001 |

Source: Health in London - Review of the London Health Strategy Indicators, 2003 Update (London Health Commission 2003)

## 12.3 How will the Baseline Evolve without Further Intervention?

The health gap between the rich and the poor in terms of life expectancy and infant mortality is widening not closing in the capital, a trend that is reflected across the country as a whole.

A new report by the London Health Observatory, '*Mapping Health Inequalities Across London*' (Fitzpatrick and Jacobson 2001), points out that the Government and local agencies will have a difficult task to meet their targets to close the health gap between rich and poor.

The report concludes:

> *"Inequalities in life expectancy and infant mortality within London have been increasing throughout the 1990s and therefore, if these*

*current trends continue, by 2010 inequalities will be even greater than they are today."*[4]

## 12.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by:

- increasing accessibility to employment opportunities for all;
- increasing access to affordable housing and greater housing choice;
- improving provision of/and access to community facilities;
- encouraging projects that reduce rather than exacerbate inequalities;
- encouraging sustainable transport plans (reduced environmental and therefore health impacts); and
- encouraging the protection of existing open and play spaces whilst encouraging the provision of more open and play space provision.

[4] Fitzpatrick J. and Jacobson B. (2001). Mapping Health Inequalities Across London. London Health Observatory, London.

# 13. Objective 13 - Crime

The objective is:

*"To reduce crime and the fear of crime."*

## 13.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What are the current levels of crime?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 13.2 Summarised Baseline Information

### 13.2.1 What are the levels of crime?

The London region has the highest rate of recorded crime per 1,000 population compared to the remainder of England and Wales. The headline incidents of crime in London and a comparison with national averages are shown in **Table 13.1**. Recorded rates of violent crime are notably high in London and the Metropolitan Police Service is responsible for recording 39 percent of all robberies in England and Wales. People in striving areas, (i.e. council estates with elderly, lone parent or unemployed residents, multi-ethnic and low income areas) are more likely to be victims.

**Table 14.1 Police recorded crime in London and England and Wales 2002/2003**

| Area | Burglary in a dwelling (per 10,000 households) | Theft and unauthorised taking of a motor vehicle (per 10,000 population) | Total violent crime (per 10,000 population) |
|---|---|---|---|
| London region (City of London and Metropolitan Police) | 240 | 82 | 324 |
| England and Wales (excluding London region) | 196 | 58 | 169 |

Source: Home Office Statistical Bulletin - Crime in England and Wales 2002/2003 (Simmons and Dodd 2003)

## 13.3 How will the Baseline Evolve without Further Intervention?

Overall, crime rates in London have recently been coming down and should continue to fall as increased numbers of police are recruited and the new technologies for monitoring and preventing crime become more widespread. On the other hand, gun crime has risen considerably in recent years and is a major source of concern. Future rates of crime depend on numerous macroeconomic and other factors.

## 13.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can help reduce crime and the fear of crime by:

- encouraging the prevention of crime through the use of good urban design, e.g. in new housing and commercial developments;
- encouraging the provision of good quality transport interchange facilities; and
- encouraging mixed-use developments which provide improved passive community policing (eyes on the street element).

# 14. Objective 14 - Housing

The objective is:

> *"To ensure that all Londoners have access to good quality affordable housing."*

## 14.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is affordable housing?
- What is the current and anticipated level of affordable housing provision?
- What is the affordable housing need?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 14.2 Summarised Baseline Information

### 14.2.1 What is affordable housing?

National planning Circular 06/98 '*Planning and Affordable Housing*' (ODPM 1998) defines the terms 'affordable housing' or 'affordable homes' as encompassing:

> *"both low-cost market and subsidised housing (irrespective of tenure, ownership - whether exclusive or shared - or financial arrangements) that will be available to people who cannot afford to rent or buy houses generally available on the open market."*[5]

Affordable housing can be divided into three categories: social housing is housing provided by a landlord where rent is no higher than government/housing association targets and access is on the basis of housing need; intermediate housing is sub-market housing where rents are between target rents and open market levels (e.g. key worker housing); and market housing is that which is owner-occupied or rented from a private landlord.

[5] ODPM
http://www.odpm.gov.uk/stellent/groups/odpm_planning/documents/page/odpm_plan_606806.hcsp

### 14.2.2 What is the current level of affordable housing provision?

Growth in the number of households and the incomes of house buyers have combined to intensify pressure on house prices in London. Affordable housing supply has failed to keep up with demand.

Current provision of affordable housing in London is 6-7,000 homes a year, around 36 percent of overall housing completions (**Table 14.1**). The majority of affordable homes are Housing Corporation funded completions. The remainder are Local Authority funded completions and, in recent years, non-grant funded, Starter homes initiative and the Challenge Fund homes (**Table 14.2**).

**Table 14.1 Overall housing completions in London 1997-2003**

| Year | Number of houses | Percentage affordable (%) | Percentage affordable including short life (%) |
|---|---|---|---|
| 1997 | 19,998 | 36.2 | 43.0 |
| 1998 | 19,627 | 36.0 | 39.1 |
| 1999 | 17,318 | 36.2 | 40.2 |
| 2000 | 19,850 | 37.6 | 40.1 |
| 2001 | 18,156 | 36.7 | 38.7 |
| 2002 | Data not yet available | Data not yet available | Data not yet available |

Source: GLA

### 14.2.3 What is the affordable housing need?

There is an urgent need for more affordable homes in London. The affordability of housing in the owner-occupied sector has been declining since beginning of 1990s as a result of escalating house prices, such that house price to income level has now reached historically high levels. House prices in London are currently 1.6 times the average for England and Wales and average private sector rents more than three times the UK average. The lack of affordable homes to rent or purchase is an especially acute issue for first-time buyers and key workers such as teachers and bus drivers, contributing to problems of recruitment and retention in the public sector. Many people are having to live longer in temporary or overcrowded accommodation, move further out of London or live elsewhere.

The importance of this issue to people living and working in London is highlighted in the Annual London Survey 2003 (MORI/GLA, January 2004, in which 94 percent of interviewees agreed that housing in London was too expensive, including 68 percent who agreed strongly. 48 percent of interviewees though that affordable housing/property prices was a top priority to improve London as a place to live and work.

The best available estimate is that 25,700 additional affordable homes, from all sources, are needed in London per annum to meet demand.

This is made up of:

- 5,000 natural growth;
- 11,200 to meet past unmet need;
- 2,000 to replace losses of stock due to right to buy;
- 2,500 additional households unable to afford increasing house prices; and
- 5,000 'intermediate' homes.

**Table 14.2 Affordable housing completions in London 1997-2003**

| Year | Source of housing | Number of houses |
|---|---|---|
| **1997/1998** | Housing Corporation funded completions | 5,931 |
| | Local authority funded completions | 1,310 |
| | Non grant funded | n/k |
| | TOTAL | 7,241 |
| | (short-life funding: HC[6] 1329, LA[7] 26, total = 1,355) | |
| **1998/1999** | Housing Corporation funded completions | 6,107 |
| | Local authority funded completions | 953 |
| | Non grant funded | n/k |
| | TOTAL | 7,060 |
| | (short-life funding: HC 569, LA 54, total = 623) | |
| **1999/2000** | Housing Corporation funded completions | 5,154 |
| | Local authority funded completions | 1,109 |
| | Non grant funded | n/k |
| | Starter Homes initiative | n/k |
| | TOTAL | 6,263 |
| | (short-life funding: HC 497, LA 167, total = 694) | |
| **2000/2001** | Housing Corporation funded completions | 5,344 |
| | Local authority funded completions | 1,342 |
| | Non grant funded | 782 |
| | (based on borough information on planning gain) | |
| | TOTAL | 7,468 |

[6] Housing Corporation

[7] Local Authority

| Year | Source of housing | Number of houses |
|---|---|---|
| | (short-life funding: HC 439, LA 57, total = 496) | |
| **2001/2002** | Housing Corporation funded completions | 4,997 |
| | Starter Homes initiative | 19 |
| | Local authority funded completions | 1,100 |
| | Non grant funded | 540 |
| | (based on borough information on planning gain) | |
| | TOTAL | 6,656 |
| | (short-life funding: HC 376, LA 70, total = 446) | |
| **2002/2003** | Housing Corporation funded completions | 3,775 |
| | Starter Homes initiative | 1,459 |
| | Local authority funded completions | 961 |
| | Non grant funded | 373 |
| | (based on borough information on planning gain) | |
| | TOTAL | 6,568 |
| | (short-life funding: HC 388, LA 75, total = 463) | |
| **2003/2004 (first six months)** | Housing Corporation funded completions | 1,887 |
| | Starter Homes initiative | 859 |
| | Challenge Fund | 12 |
| | Local authority funded completions | n/k |
| | Non grant funded | n/k |
| | TOTAL | 2,758 |
| | (The Housing Corporation has allocated funding for 9,813 homes in London for the 2003/2004 financial year. This includes the Challenge Fund) | |

Source: GLA

## 14.3 How will the Baseline Evolve without Further Intervention?

The baseline would be a continuation of existing policy. Future known investment in affordable housing will create 10,000 affordable homes per year (GLA, February 2004b).

## 14.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by:

- encouraging London boroughs to carry out detailed affordable housing needs surveys;

- assessing borough UDP proposals against the London-wide target that 50 percent of all additional housing should be affordable;
- using the Plan as a basis for consideration of strategic planning applications referred to the Mayor;
- maximising contribution of planning obligations to affordable housing; and
- encouraging partnership approaches and sub-regional frameworks to help deliver affordable housing.

# 15. Objective 15 - Development and Brownfield Land

The objective is:

> *"To ensure that where possible, new development occurs on derelict, vacant and underused previously developed land and buildings, and that land is remediated as appropriate."*

## 15.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes previously-developed land and buildings?
- How much brownfield land is available in London?
- How much new development in London takes place on brownfield land?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 15.2 Summarised Baseline Information

### 15.2.1 What constitutes previously-developed land and buildings?

Previously developed land is defined by Government as land "*which is or was occupied by a permanent structure (excluding agricultural or forestry buildings), and associated fixed surface infrastructure*"[8]. This includes defence buildings and land used for mineral extraction and waste disposal (where provision for restoration has not been made through development control procedures). It excludes land and buildings which are being used for agriculture or forestry, land in built-up areas which has not been previously developed (e.g. parks, recreation grounds and allotments) and land which was previously developed, but where the remains of any structure or activity have blended into the landscape over time and where there is a clear reason (e.g. nature conservation, amenity use) that could outweigh the re-use of the site.

[8] Planning Policy and Guidance 3 (ODPM)
http://www.odpm.gov.uk/stellent/groups/odpm_control/documents/contentservertemplate/odpmindex.hcst?n=2263&l=2

### 15.2.2 How much brownfield land is available in London?

**Table 16.1** shows how London compares with other regions of England and Wales in terms of its stock of previously developed/vacant/derelict land. According to information provided by local authorities for the National Land Use Database, there is approximately 3,480 ha of previously developed land in London that may be available for redevelopment.

**Table 16.1 Previously developed land that is unused or may be available for redevelopment by planned use, suitability for housing and dwellings, by Region: England 2002**

| Government Office Region | Land with planning allocation or permission (hectares) | | | | All previously developed land that is unused or may be available for redevelopment | Land suitable for housing | | |
|---|---|---|---|---|---|---|---|---|
| | Housing | Mixed-use | Other | None | | Total area (hectares) | Number of dwellings | Number of dwellings per hectare |
| North East | 530 | 590 | 2,570 | 1,080 | **4,770** | 1,910 | 51,600 | 27 |
| North West | 1,980 | 930 | 5,160 | 3,630 | **11,700** | 3,930 | 135,100 | 34 |
| Yorkshire and the Humber | 850 | 530 | 3,020 | 3,600 | **8,000** | 2,320 | 87,500 | 38 |
| East Midlands | 930 | 740 | 1,990 | 2,230 | **5,890** | 2,690 | 75,800 | 28 |
| West Midlands | 1,500 | 520 | 2,380 | 2,130 | **6,530** | 2,690 | 71,100 | 26 |
| East of England | 1,880 | 1,110 | 1,600 | 2,900 | **7,500** | 3,960 | 100,500 | 25 |
| London | 530 | 1,550 | 830 | 570 | **3,480** | 2,090 | 115,200 | 55 |
| South East | 1,820 | 3,330 | 3,370 | 2,220 | **10,730** | 5,610 | 135,000 | 24 |
| South West | 1,000 | 970 | 1,250 | 3,160 | **6,380** | 2,770 | 96,400 | 35 |
| England | 11,010 | 10,280 | 22,190 | 21,510 | **64,990** | 27,970 | 868,200 | 31 |

Source : National Landuse Database statistics

Information is available on the following categories of land:

- previously developed land which is now vacant;
- derelict land and buildings;
- land occupied by vacant buildings; and
- land currently in use with planning allocation.

These are defined as follows:

- Previously developed land which is now vacant is land that could be developed without any further treatment being needed.
- Derelict land and buildings is defined as land which is so damaged by previous industrial or other development that it is incapable of beneficial use without treatment. Treatment includes demolition, clearing of fixed structures or foundations, and levelling. 'Buildings' includes abandoned and unoccupied buildings in an advanced state of disrepair. It excludes land which has blended into the landscape so that its value in nature conservation or amenity terms outweighs the re-use of the site.
- Land occupied by vacant buildings is land where the buildings are structurally sound and in a reasonable state of repair (i.e. capable of being occupied in their present state), but have been unoccupied for one year or more.
- Land currently in use with planning allocation (or planning permission) includes all sites currently in use (or with buildings which have been vacant for less than one year), allocated for development in the adopted plan or with outstanding planning permission where redevelopment has not yet started.

Over the period for which records are available, boroughs in the East Thames Corridor, principally Newham, Greenwich, Havering and Barking and Dagenham, had the most vacant and derelict land in the first two categories. The East Thames Corridor also held large areas of land with buildings in current use which were designated for redevelopment. Hounslow and Hillingdon in West London also held large areas of land in this category.

### 15.2.3 How much new development in London takes place on brownfield land?

In London the majority of development takes place on brownfield land. The most recently available statistics from the Government's Land Use Change Database show that, from 1996-1999, 85% of land changing to developed uses was previously developed land. Overall, land developed in London from 1996-1999 comprised:

- Previously developed land (85 percent) :
- 11 percent previously developed residential;
- 23 percent previously developed vacant and residential; and
- 51 percent other previously developed.
- Not previously developed land (15 percent):
- three percent agriculture;
- four percent urban not previously developed; and
- nine percent other not previously developed.

In 1998-2001, 96 percent of new dwellings in Inner London and 85 percent of dwellings in Outer London were built on previously developed land, well above the English average of 57 percent and greater than any other part of the country.

## 15.3 How will the Baseline Evolve without Further Intervention?

It is anticipated that the majority of new development in London will be on brownfield sites. Thames Gateway, the major development opportunity in London, has one of the largest concentrations of brownfield land in the country. However, as pressure on land intensifies, more intervention will be necessary to remediate difficult to develop sites. LDA has been set the following target by the Government: by 2004, brownfield land is to be reclaimed at a rate of over 30 hectares per annum (contributing to the national target to reclaim five percent of current brownfield land by 2004 and 17 percent by 2010).

## 15.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by:

- encouraging the re-use of previously developed land and buildings;
- identifying areas of strategic regeneration within which co-ordinated action from a range of stakeholders will be required;
- identifying the infrastructure that needs to be put in place to help bring forward areas for regeneration;
- encouraging UDPs to adopt a policy stance that protects existing areas of undeveloped land; and
- setting a target for the proportion of new housing that should be provided on previously-developed land and buildings.

# 16. Objective 16 - Community Communication

The objective is:

> *"To encourage communication between London's different communities, in order to improve understanding of differing needs and concerns."*

## 16.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is the 'make up' of London's communities?
- What are the needs and concerns of London's communities?
- What is the existing communication between London's communities?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 16.2 Summarised Baseline Information

### 16.2.1 What is the 'make up' of London's communities?

London is a diverse and cosmopolitan city made up of people from many different backgrounds. More languages and cultures are represented in London than in any other city in the world. London's children speak one or more of over 300 languages, a third of the population is of black and minority ethnic origin, 13 percent of the population is aged over 65, one in ten Londoners have some form of disability and London has the largest population of lesbian and gay people in Britain.

### 16.2.2 What are the needs and concerns of London's communities?

Many of London's communities share the same needs. The Annual London Survey 2003, a major annual opinion survey of Londoners conducted for the GLA (MORI/GLA 2004), showed that the top priorities for living in London were safety/crime and affordable housing/property prices (**Table 16.1**). For working in London the top priorities were job opportunities and affordable housing/property prices (**Table 16.2**).

**Table 16.1 Top priorities to improve London as a place to live**

| Type of improvement | Percentage respondents giving improvement as a top priority (%) | | | |
|---|---|---|---|---|
| | 2003 | 2002 | 2001 | 2000 |
| Education | 30 | 26 | 31 | 10 |
| Environment | 22 | 20 | 23 | 4 |
| Health Service | 33 | 32 | 39 | 12 |
| Affordable Housing/Property Prices | 48 | 51 | 49 | 11* |
| Police | 25 | 19 | 19 | 8 |
| Improved Public Transport | 31 | n/a | n/a | n/a |
| Affordable Public Transport | 16 | n/a | n/a | n/a |
| Safety/Crime | 47 | 50 | 51 | 27 |
| Traffic Congestion | 20 | 33 | 27 | 12 |
| Public Transport/Cheaper Fares | n/a | 33 | 36 | 52 |
| Other | 1 | 2 | 2 | 3 |
| None of these | * | 1 | * | n/a |
| Don't Know | 2 | 1 | 1 | 13 |

* 2000 wording 'Housing' rather than 'Affordable housing/Property prices'

Interviewees were asked the question: "what two or three things do you think should be the top priorities to improve London as a place to live?"

Source: Annual London Survey 2003 (MORI/GLA 2004)

**Table 16.2 Top priorities to improve London as a place to work**

| Type of improvement | Percentage respondents giving improvement as a top priority (%) | | | |
|---|---|---|---|---|
| | 2003 | 2002 | 2001 | 2000 |
| Economic Development | 13 | 14 | 26 | 4 |
| Education | 13 | 16 | 17 | 3 |
| Affordable Housing/Property Prices | 48 | 50 | 49 | 4* |
| Job Opportunities | 43 | 43 | 49 | 11 |
| Pay/Raise Minimum Wage | 31 | 31 | 27 | 3 |
| Improved Public Transport | 34 | n/a | n/a | n/a |
| Affordable Public Transport | 23 | n/a | n/a | n/a |
| Safety/Crime | 23 | 26 | 21 | 6 |
| Traffic Congestion | 21 | 30 | 28 | 7 |
| Public Transport/Cheaper Fares | n/a | 39 | 44 | 46 |
| Other | 1 | 1 | 1 | 3 |
| None of these | 1 | 1 | 1 | n/a |
| Don't Know | 5 | 3 | 4 | 29 |

* 2000 wording 'Housing' rather than 'Affordable housing/Property prices'

Interviewees were asked the question: "what two or three things do you think should be the top priorities to improve London as a place to work?"

Source: Annual London Survey 2003 (MORI/GLA 2004).

In addition to these over-arching issues, particular communities in London also have their own distinct needs, some of which are described below:

**Disabled people**

Inability to access many of London's opportunities and attractions, including the opportunity to work, restricts the independence of disabled people and means that instances of poverty, social exclusion and isolation amongst disabled people is higher than average, with many disabled people restricted to certain local areas.

**London's older people**

Thirteen percent of London's population is aged over 65 or above and three percent of London's total population is aged over the age of 80. Yet the proportion of people aged 65 or over living in London is less than in many parts of England, where older people make up an estimated 16 percent of the population. Many pensioners in London live in households without a car. Convenient, safe and reliable public transport is therefore a priority for them. Many older people would be more predisposed to remaining in London after retirement if London's environmental quality was perceived to be higher, and the provision of basic facilities such as accessible places to meet, public toilets and street furniture were greater.

**London's children and young people**

Poverty affects children and young people in many ways. It may mean suffering overcrowded and poor quality housing conditions, poor health and nutrition, lower levels of education attainment and restricted recreational choices and mobility. London has the highest rates of teenage drug dependency, homelessness and pregnancy in the United Kingdom as well as a high proportion of other groups with key needs such as refugees, young carers and disabled children, who are often doubly disadvantaged by poverty and discrimination. Children, young people and their parents are very concerned about crime and safety. The provision of high quality childcare, play, leisure, cultural and educational facilities across London is undoubtedly a determinant of children's future life chances. These combined with inadequate provision of safe play space restrict children's activities and affect their physical and mental development.

**Women in London**

Women are significant contributors to London's economy; they represent 46 percent of all taxpayers in London. However many women's experiences of London are affected by concerns about the gender pay-gap, child care, health facilities and personal safety, particularly in the public realm but also on public transport. They are more likely to do the shopping and ferrying children alongside working, mainly part-time. Because of the inadequacy of public transport and because women often make a range of complex local journeys, many feel obliged to acquire cars. Those that cannot afford to are further restricted in job opportunities. Women need convenient, affordable and safe public transport.

**London's black and minority ethnic groups**

Nearly a third of all Londoners are from black and minority ethnic (BME) groups. Many black and minority ethnic groups have distinct spatial needs. The Government's Social Exclusion Unit recently reported that:

> *"While there is much variation within and between different ethnic groups, overall, people from minority ethnic communities are more likely than others to live in deprived areas and in unpopular and overcrowded housing. They are more likely to be poor and to be unemployed, regardless of their age, gender and qualifications."*[9]

The cost of housing in London often prohibits families from being able to access the type or size of accommodation required and hence overcrowding and poor housing conditions can be a problem for these communities. Many BME groups are prevented from enjoying life to the full because of fear of crime and racial abuse. Discrimination in London's labour market is a recurrent problem for many BME groups particularly the young.

**Lesbians, gay men, bisexuals and trans people**

London has the largest gay, lesbian, bisexual and trans people population in the country. Discrimination at work is a common problem. Same sex partners frequently do not receive the same benefits (e.g. travel concessions or special leave) as heterosexual couples and have different legal rights. Many people in this group are victims of violent crime but are less likely to report it to police; early results from a national survey of lesbians and gay men found that 25 percent said they had suffered homophobic assaults serious enough to be considered criminal offences.

### 16.2.3 What is the existing communication between London's communities?

Interaction between communities in London is encouraged by large scale events such as the Respect Festival, which promotes respect and diversity through music, and numerous faith group or cultural festivals which celebrate different communities and encourage tolerance.

## 16.3 How will the Baseline Evolve without Further Intervention?

This objective is highly qualitative in nature and it is very difficult to comment on what the baseline situation is let alone how it might change over time.

Understanding of the needs and concerns of London's communities should be aided by the new Community Strategies. These are part of the Local Government Act 2000, which requires local authorities to prepare Community Strategies for

[9] Social Exclusion Unit/ODPM
http://www.socialexclusionunit.gov.uk/publications/reports/html/bmezip/summary.htm

promoting or improving the economic, social and environmental well-being of their areas. A community strategy must:

- allow local communities (based upon geography and/or interest) to articulate their aspirations, needs and priorities;
- co-ordinate the actions of the council, and of the public, private, voluntary and community organisations that operate locally;
- focus and shape existing and future activity of those organisations so that they effectively meet community needs and aspirations; and
- contribute to the achievement of sustainable development at all levels from the local to the national.
- have a long-term vision for the area focusing on outcomes that are to be achieved, and specify actions, priorities and a shared commitment to implementation.

A number of other policies and initiatives are being pursued to promote communication between communities. The Mayor's Culture Strategy contains policies to support events such as the Notting Hill Carnival, Chinese New Year and Diwali and the development of a London mela.

## 16.4 How can the Plan Contribute to the Achievement of this Objective?

The London Plan can contribute to this objective by:

- encouraging the provision of community facilities within new development;
- encouraging improved public transport facilities both in terms of the regularity of services and the quality of interchange facilities;
- encouraging the retention of existing community facilities;
- encouraging community engagement processes;
- encouraging the provision of additional affordable housing and greater housing choice;
- encouraging support for SMEs, as these are particularly important for BME groups;
- supporting provision of affordable childcare; and
- supporting the role of voluntary and community organisation in service and skills provision.

# 17. Objective 17 - Greenhouse Gas Emissions

The objective is:

> *"To reduce emissions of greenhouse gases, and plan for further reductions, to meet or exceed national climate change targets."*

## 17.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What are the main greenhouse gases?
- What are the current emission levels?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 17.2 Summarised Baseline Information

### 17.2.1 What are the main greenhouse gases?

Carbon dioxide ($CO_2$) is the main pollutant that contributes to climate change, but there are a number of other greenhouse gases emitted into the atmosphere. These include methane ($CH_4$), nitrous oxide ($N_2O$), sulphur hexafluoride ($SF_6$) hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Although these gases are emitted in much smaller quantities than carbon dioxide, they are much more powerful in their global warming potential per unit released.

The main source of $CO_2$ is from the combustion of fossil fuels to generate electricity. To reduce $CO_2$ emissions it is therefore necessary to increase energy efficiency (and hence reduce total energy consumption) and increase the proportion of energy generated from renewable sources.

### 17.2.2 What are the current emission levels?

$CO_2$ emissions from London between 1990 and 2000 are presented in **Figure 17.1**. The dotted lines represent baseline (1990) and target emissions (12.5 percent below 1990 emissions by 2008-12) as specified under the Kyoto Protocol, along with the UK government's domestic target of a 20 percent reduction in $CO_2$ emissions by 2010, relative to 1990 emissions.

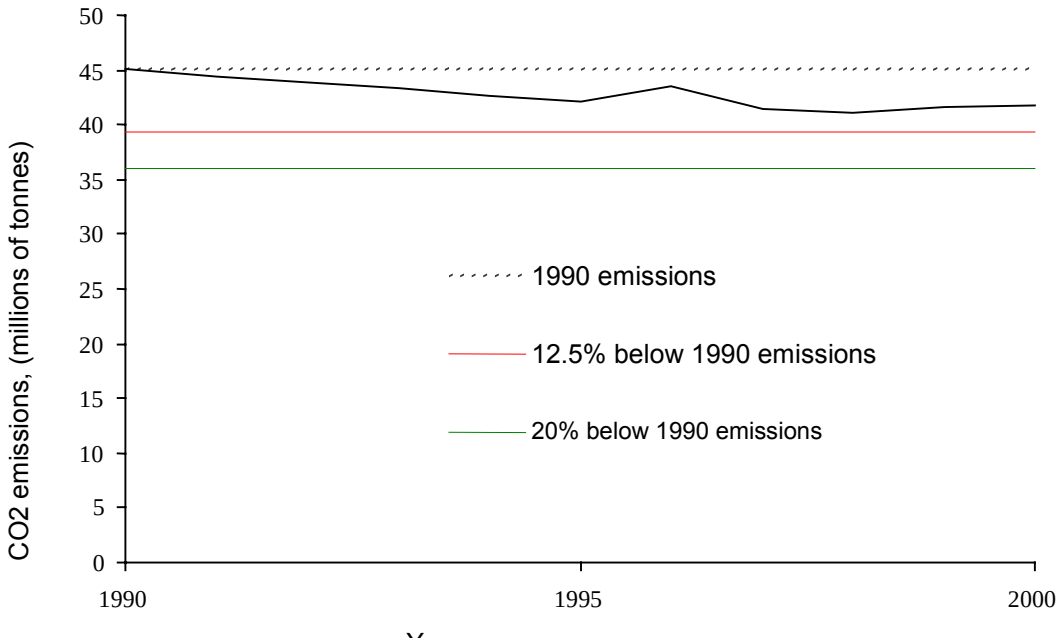



**Figure 17.1 Historical $CO_2$ emissions from London, 1990-2000, with reductions target lines**

Source: The Mayor's State of the Environment Report for London (GLA, May 2003b)

There is at present insufficient data to compile estimates of individual greenhouse gas releases within London other than for $CO_2$. However, national estimates for other greenhouse gases are included in the National Atmospheric Emissions Inventory. These estimates have been allocated to London on the basis of population, industrial activity and other indicators appropriate to the individual gases. The quantities shown in **Table 17.1** have been converted into million tonnes of carbon dioxide equivalent.

**Table 17.1 Greenhouse gas emissions in London for the financial year 1999-2000**

| Greenhouse gas | Emissions (million tonnes $CO_2$ equivalent) |
|---|---|
| Carbon Dioxide ($CO_2$) | 40.3 |
| Methane ($CH_4$) | 0.502 |
| Nitrous Oxide ($N_2O$) | 0.673 |
| Sulphur hexafluoride ($SF_6$) | 0.026 |
| Hydrofluorocarbons (HFCs) | 0.414 |
| Perfluorocarbons (PFCs) | 0.016 |
| Total greenhouse gas emissions | 41.931 |

Source: The Mayor's State of the Environment Report for London (GLA, May 2003b)

## 17.3 How will the Baseline Evolve without Further Intervention?

If the UK's domestic target for $CO_2$ emissions is met, then emissions will fall by 20 percent by 2010 (relative to 1990 emissions). The London Sustainable Development Commission has recommended that the Mayor adopt a 20 percent target for London, and this has been adopted in the Mayor's Energy Strategy. The Government's Energy White Paper '*Our Energy Future'* (DTI 2003) has set the goal of a 60 percent cut in emissions from current levels by about 2050.

However, without concerted international action, global $CO_2$ emissions will continue to rise. Projected climate change scenarios are set out below:

- winters will become warmer by 1-2oC by the 2050s and by up to 3.5oC by the 2080s;
- summers in the 2050s will be 1.5-3.5oC hotter, and as much as 5oC hotter by the 2080s;
- higher summer temperatures will become more frequent and very cold winters will become increasingly rare, daily maximum temperatures of 33oC will become more frequent;
- winters will become wetter with the incidence of flooding becoming more common; and
- mean winter wind speeds will increase.

## 17.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by encouraging:

- the reduction of overall energy consumption, for example by encouraging energy efficient buildings and reducing the need to travel by car;
- the use of cleaner fuels;
- the uptake of renewable energy sources; and
- more sustainable methods of design and construction.

# 18. Objective 18 - Air Quality

The objective is:

*"To improve air quality."*

## 18.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes good air quality?
- What is the current situation in London in terms of existing air quality?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 18.2 Summarised Baseline Information

### 18.2.1 What constitutes good air quality?

National air quality objectives are derived from health-based standards. The standards aim to reduce exposure to levels at which no or minimal effects on human health are likely to occur, but which are set with target dates and allowed exceedances which take account of the wider economic, social and environmental issues. They cover nine pollutants for the purposes of local air quality management. The Mayor's Air Quality Strategy adopts these objectives. The nine pollutants are nitrogen dioxide ($NO_2$), fine particles ($PM_{10}$), sulphur dioxide ($SO_2$), lead (Pb), carbon monoxide (CO), benzene ($C_6H_6$), 1,3-butadiene, ozone ($O_3$) and polycyclic aromatic hydrocarbons (PAH).

### 18.2.2 What is the current situation in London in terms of existing air quality?

During the last 50 years, industrial production in London has declined considerably and the remaining industry has emitted less pollution as a result of better technology and increasing levels of control. Larger industrial processes are monitored by the Environment Agency and smaller operators are monitored by the London boroughs. A major decline in domestic coal burning has also made a substantial contribution to cleaning up London's air. $SO_2$ and smoke levels in London are therefore dramatically improved.

However, London still suffers from poor air quality, in particular $NO_x$ (nitrogen oxide) and $PM_{10}$, and the major source is vehicle emissions. London's road emissions characteristics are unique in the UK, with London's buses making a

significant contribution, particularly in Central London where they cause 20 percent of $NO_x$ emissions. London's taxi fleet is also a major polluter contributing to one quarter of $PM_{10}$ emissions in Central London. The other main sources of air pollution are: rail, aviation and ships; regulated industrial processes; and gas use.

Trends during the last few years show many reductions in pollutant concentration. There were also far fewer significant air pollution episodes (periods of time with unusually high air pollution levels) in 2000 than in the previous years. However, London's air quality is still the worst of any city in the UK and amongst the worst in Europe. There are significant geographic concentrations of air pollution in London. Pollution is highest in Central London, the Heathrow area and along major roads such as the north/south circular.

**Table 18.1** shows the percentage of emissions for six of the seven priority pollutants within Greater London, together with the national percentages for comparison. It is apparent that road transport emissions dominate in London much more than nationally.

**Table 18.1 Percentage of emissions within Greater London and nationally from road transport and industry in 1999**

| Pollutant | Total emissions Greater London (tonnes/year) | Percentage of emissions Greater London (%) | | Percentage of emissions nationally (%) | |
|---|---|---|---|---|---|
| | All Sources | Road Transport | Industry | Road Transport | Industry |
| Nitrogen Oxide ($NO_x$) | 68,126 | 58.2 | 8.9 | 44 | 37 |
| Fine particles ($PM_{10}$) | 2,747 | 67.9 | 22.3 | 20 | 44 |
| Sulphur Dioxide | 3,555 | 38.3 | 39.1 | 1 | 89 |
| Carbon Monoxide (CO) | 173,381 | 93.7 | 1.4 | 69 | 16 |
| Benzene | 1,643 | 73.6 | 7.1 | 71 | 12 |
| 1,3-Butadiene | 430 | 92.6 | 0.0 | 85 | 6 |

Source: The Mayor's Air Quality Strategy (GLA, September 2002)

## 18.3 How will the Baseline Evolve without Further Intervention?

With current (business as usual) national policies, London is expected to meet the national objectives for five of the seven priority pollutants (CO, benzene, 1,3-butadiene, $SO_2$ and lead), but do less well in reducing $NO_x$ and $PM_{10}$.

However, national objectives may be met if London is successful in meeting policies of the Mayor's Transport Strategy, which aim to reduce the need to travel by car. Congestion charging and the national trend towards cleaner vehicles will also have an effect, as will policies of the Mayor's Air Quality Strategy to reduce pollution from other sources.

### 18.3.1 The Mayor's Transport Strategy

The Mayor's Transport Strategy aims to reverse traffic growth by accommodating much of the increased demand for travel by improving access to public transport. Between 2001 and 2011 the following broad changes are expected:

- 40 percent more bus passengers across London, alongside a similar level of increase in bus capacity;
- 15 percent more morning peak passengers on the existing Underground network, alongside an increase in capacity of 17 percent;
- nine percent more morning peak passengers on National Rail services in London (excluding CrossRail and Thameslink), alongside an increase in capacity of 12 percent; and
- a reduction of 15 percent in traffic in Central London, reducing growth from 4.5 percent to zero in Inner London, and a reduction in the rate of traffic growth in Outer London by a third to five percent with greater traffic reductions in sensitive locations.

### 18.3.2 Congestion charging

The Mayor introduced a scheme to reduce congestion in Central London in February 2003. Early indications suggest that congestion charging has resulted in a significant reduction (around 20 percent) in road traffic in Central London but it is too early yet to assess the full effects in relation to air quality.

### 18.3.3 Cleaner vehicles

Government national projections assume that from 1995 to around 2010, the total emissions from road transport will decrease rapidly, as the rate of reduction in vehicle emissions outstrips the growth in traffic. This will happen as most of the older 'pre-Euro' vehicles, which are particularly bad polluters, come to the end of their life and cleaner vehicles increase in proportion. This trend of declining $NO_x$ and $PM_{10}$ emissions is expected to slow down considerably from about 2010, come to a halt around 2015, and then slightly reverse as engine and fuel improvements are offset by continuing traffic growth.

## 18.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by:

- seeking to reduce the need to travel;
- encouraging the use cleaner fuels, e.g. by encouraging the provision of appropriate infrastructure;
- encouraging the use of public transport, e.g. through the provision of transport interchange facilities;

- encouraging walking and cycling, e.g. through the provision of dedicated cycleways and footpaths; and
- setting policies that control the location of development so as to avoid the juxtaposition of polluting and sensitive uses.

# 19. Objective 19 - Waste

The objective is:

> *"To reduce the amount of waste requiring final disposal through waste minimisation, and to increase in order of priority, the proportion of waste reused, recycled and composted, and recovered."*

## 19.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What are the current levels of waste arising in London?
- How is waste managed in London?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 19.2 Summarised Baseline Information

### 19.2.1 What are the current levels of waste arising in London?

London produced over 17 million tonnes of controlled waste in 2000-01. Households alone produced 3.4 million tonnes, most of which is collected in dustbins and black bags by the local authority or by contractors working on their behalf. This is equivalent to nearly half a tonne per person from households, but a further two tonnes is produced for every person living in London by businesses and industry. In 2000-01 local authorities collected 4.4 million tonnes of municipal solid waste (household waste plus some commercial waste), with many authorities also operating civic amenity sites. Commercial and industrial wastes accounted for 6.38 million tonnes, construction and demolition wastes 6.05 million tonnes and special waste was 0.36 million tonnes.

### 19.2.2 How is waste managed in London?

The vast majority of London's municipal waste is currently disposed of in landfill. In 2000/2001, landfill accounted for 72 percent of municipal waste, with over 90 percent of this going to sites outside Greater London. A further 20 percent of London's municipal waste is incinerated at the two waste incineration plants within London, at Edmonton and Lewisham, where the process generates electricity. Only eight percent of London's municipal waste is recycled or composted. Compared to the rest of England and Wales, London sends less of its waste to landfill (72 percent compared to the national average of 78 percent), but

incinerates more (20 percent compared to nine percent nationally) and recycles less (eight percent compared to 12 percent).

### The growth in waste

Between 1996/1997 and 2000/2001, London's municipal waste increased by 16 percent. This growth was most notable in other waste collected such as street cleaning and litter, bulky waste and garden waste, rather than from household dustbins and black sacks. This may reflect the effort made by waste authorities to increase household recycling, the tonnage of which has risen by 63 percent between 1996/1997 and 2000/2001. Despite this increase in recycling tonnage, household recycling as a proportion has only crept up from six to nine percent over the same timeframe, thanks to the increase in these other wastes. There are a number of factors influencing the growth in waste, including the increase in population and number of households; greater affluence; changing shopping habits and increases in packaging; and the influence of the 'throw-away society'.

**Table 19.1** sets out how many tonnes of waste was created in each London borough in 2000/2001 and how much of this was recycled.

**Table 19.1 Municipal waste in London 2000/2001 (million tonnes)**

| Authority | Amount of household waste produced (million tonnes) | | | | | Amount of non household waste produced (million tonnes) | | Total amount of municipal waste and recycling | |
|---|---|---|---|---|---|---|---|---|---|
| | Collection round (bin) waste | Other collected waste | Civic amenity | Household recycled | Total household waste | Non household for disposal | Non household recycled | Total municipal recycling | Total municipal waste |
| Barking and Dagenham | 46.2 | 8.2 | 43.2 | 2.5 | 100.1 | 3.0 | 0.0 | **2.5** | **103.1** |
| Havering | 71.6 | 6.9 | 33.8 | 5.4 | 117.6 | 3.2 | 0.0 | **5.4** | **120.8** |
| Newham | 72.1 | 6.3 | 44.5 | 2.4 | 125.3 | 15.8 | 2.4 | **4.7** | **143.4** |
| Redbridge | 66.0 | 4.7 | 17.2 | 7.0 | 94.9 | 11.4 | 0.0 | **7.0** | **106.3** |
| East London Waste Authority | 265.0 | 49.3 | 138.5 | 22.2 | 475 | 58.4 | 4.2 | **26.4** | **537.6** |
| Barnet | 108.2 | 12.3 | 7.7 | 10.3 | 138.5 | 21.8 | 0.0 | **10.3** | **160.3** |
| Camden | 73.0 | 12.5 | 2.4 | 16.1 | 103.9 | 37.5 | 0.2 | **16.3** | **141.6** |
| Enfield | 99.3 | 6.9 | 21.6 | 8.5 | 136.3 | 2.4 | 3.3 | **11.8** | **142.0** |
| Hackney | 82.1 | 2.0 | 2.6 | 1.0 | 87.8 | 24.3 | 0.0 | **1.0** | **112.0** |
| Haringey | 107.9 | 0.0 | 5.9 | 5.0 | 118.7 | 4.6 | 0.0 | **5.0** | **123.3** |
| Islington | 50.0 | 7.9 | 5.4 | 4.4 | 67.6 | 32.6 | 0.0 | **4.4** | **100.2** |
| Waltham Forest | 72.6 | 4.5 | 14.0 | 7.9 | 99 | 20.5 | 0.3 | **8.3** | **119.8** |
| North London Waste Authority | 586.0 | 39.2 | 59.5 | 51.1 | 735.8 | 174.4 | 7.7 | **58.8** | **917.9** |

| Authority | Amount of household waste produced (million tonnes) | | | | | Amount of non household waste produced (million tonnes) | | Total amount of municipal waste and recycling | |
|---|---|---|---|---|---|---|---|---|---|
| | Collection round (bin) waste | Other collected waste | Civic amenity | Household recycled | Total household waste | Non household for disposal | Non household recycled | Total municipal recycling | Total municipal waste |
| Brent | 89.0 | 7.3 | 7.6 | 7.1 | 111 | 4.5 | 0.0 | **7.1** | **115.5** |
| Ealing | 68.6 | 22.7 | 41.2 | 15.1 | 147.6 | 37.7 | 0.0 | **15.1** | **185.3** |
| Harrow | 64.4 | 2.9 | 19.6 | 9.4 | 96.3 | 8.0 | 0.0 | **9.4** | **104.3** |
| Hillingdon | 91.2 | 0.0 | 47.7 | 13.3 | 152.2 | 0.0 | 0.0 | **13.3** | **152.2** |
| Hounslow | 65.4 | 5.5 | 22.3 | 13.1 | 106.3 | 8.7 | 0.0 | **13.1** | **115.0** |
| Richmond-upon-Thames | 59.0 | 3.3 | 11.5 | 14.0 | 87.8 | 13.6 | 0.1 | **14.1** | **101.5** |
| West London Waste Authority | 389.8 | 40.5 | 149.9 | 70.6 | 650.9 | 169.5 | 0.0 | **70.6** | **820.4** |
| Hammersmith and Fulham | 46.0 | 20.7 | 0.0 | 5.4 | 72 | 30.3 | 0.3 | **5.7** | **102.7** |
| Kensington and Chelsea | 62.3 | 7.1 | 0.6 | 5.5 | 75.5 | 34.0 | 3.6 | **9.1** | **113.1** |
| Lambeth | 74.2 | 26.0 | 6.7 | 9.7 | 116.6 | 34.3 | 0.0 | **9.7** | **150.9** |
| Wandsworth | 70.0 | 30.3 | 0.0 | 7.4 | 107.8 | 37.1 | 3.7 | **11.1** | **148.6** |
| Western Riverside Waste Authority | 238.9 | 63.5 | 28.0 | 32.7 | 363.2 | 146.9 | 0.1 | **32.8** | **510.1** |
| Bexley | 71.6 | 4.9 | 11.3 | 18.3 | 106.1 | 22.8 | 4.7 | **23.0** | **133.6** |
| Bromley | 86.0 | 9.1 | 59.5 | 23.1 | 177.6 | 13.1 | 0.0 | **23.1** | **190.7** |
| Corporation of London | 4.5 | 1.9 | 0.0 | 0.0 | 6.4 | 64.8 | 1.3 | **1.3** | **72.5** |
| Croydon | 78.1 | 28.9 | 14.8 | 16.5 | 138.3 | 66.1 | 2.5 | **21.3** | **206.9** |
| Greenwich | 103.3 | 12.8 | 8.9 | 7.1 | 132.1 | 19.4 | 0.0 | **7.0** | **151.5** |
| Kingston-upon-Thames | 37.1 | 0.0 | 17.2 | 13.2 | 67.4 | 15.0 | 0.0 | **13.2** | **82.5** |
| Lewisham | 80.7 | 29.7 | 0.0 | 5.2 | 115.6 | 14.8 | 0.1 | **5.3** | **130.5** |
| Merton | 40.3 | 0.0 | 16.0 | 12.0 | 68.2 | 28.5 | 2.2 | **14.2** | **98.9** |
| Southwark | 80.6 | 17.7 | 1.4 | 3.1 | 102.7 | 29.9 | 0.0 | **3.1** | **132.7** |
| Sutton | 45.1 | 4.0 | 14.7 | 20.8 | 84.6 | 11.2 | 0.0 | **20.8** | **95.8** |
| Tower Hamlets | 63.8 | 7.7 | 1.3 | 2.1 | 74.9 | 23.8 | 0.0 | **2.1** | **98.6** |
| Westminster | 59.9 | 27.0 | 0.0 | 6.4 | 93.3 | 148.6 | 3.6 | **10.0** | **245.6** |
| **Greater London** | **2,230.5** | **336.3** | **520.9** | **303.6** | **3,391.3** | **1,007.3** | **40.4** | **344.0** | **4,439.0** |

Source: The Mayor's Municipal Waste Management Strategy (GLA, September 2003b)

## 19.3 How will the Baseline Evolve without Further Intervention?

Factors which will have an unknown impact on future waste arisings include:

- changing regulatory requirements for waste management operations;
- public perception of waste facilities;
- market prices of recyclables; and
- further changes to products and services i.e. e-media could replace much of the printed word.
- Other factors affecting waste management in the future will include:
- cost of transport;
- oil prices;
- climate change levy; and
- availability of funding.

Looking at the evidence from the recent past in London, it is forecasted that, without action to address the growth, municipal waste will continue to grow between two and four percent each year. If waste grows at three percent a year from now until 2020, there will be twice as much waste to deal with. If the amount of waste per household is held at 2000/2001 levels but the number of households increases as expected, then the growth in the total amount of waste would still be about one percent.

## 19.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can help achieve this objective by:

- encouraging a strategic approach to waste management with boroughs co-operating with each other;
- encouraging UDPs to protect existing waste management facilities;
- encouraging the provision of new waste management facilities where they represent the best practicable environmental option;
- encouraging the provision of waste management facilities (e.g. for recycling) within residential and commercial developments; and
- encouraging sustainable construction processes so as to reduce the amount of construction and demolition waste that is generated.

# 20. Objective 20 - Noise

The objective is:

*"To reduce the ambient noise using best practice techniques."*

## 20.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What are existing noise levels in London?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 20.2 Summarised Baseline Information

### 20.2.1 What are existing noise levels in London?

Attempting to measure the scale of the noise problem in London is difficult. Limited, regular measurements of noise in London are carried out by some London boroughs, although this is only at a small number of sites across the local area, perhaps at three or four locations, often over short periods of time only. Noise maps, which will map computed noise levels from different sources such as road traffic and industrial sources on an average annual basis, will be completed between 2004 and 2007.

**Noise surveys**

The 1999-2000 National Noise Attitude Survey (BRE 2002a), included some boroughs in Outer London. Comparing noise with other environmental problems, 21 percent of the respondents rated noise as one of the top five environmental problems affecting them personally from a list of 12. The survey also questioned respondents on the specific source of noise. 35 percent of the respondents in Greater London reported being 'moderately', 'very' or 'extremely' bothered, annoyed or disturbed by road traffic noise, compared with 22 percent in the UK as a whole. Neighbours and/or other people nearby comprised the next most important source in London at 28 percent, compared with 19 percent nationally. Building, construction, demolition, renovation or road works were also more widely given as sources of annoyance in London than nationally.

In 2002, the GLA carried out a survey of 8000 London households which included questions on noise issues. The main noise problems identified were road traffic noise, aircraft noise and noisy neighbours.

Survey evidence shows changing attitudes towards noise and there is evidence for increases in concern about the issue. However results vary according to how the issue is presented to the respondent: attitude surveys usually find that when people are asked general questions about priorities or concerns, noise is only mentioned occasionally, whereas when people are specifically asked about noise, higher proportions tend to report annoyance. It is therefore unclear whether this change reflects an increase in exposure to noise, or people becoming less tolerant of their relatively unchanging noise environment, or both. The National Noise Incidence Study (BRE 2002b), which compared noise levels measured outside dwellings in Outer London boroughs in 1990 and 2000, found that only slight changes in levels have occurred, with a rise at night and a smaller rise during the day.

### Heathrow Airport

Aircraft movements to and from Heathrow Airport are a significant source of noise. BAA plc operates a noise monitoring system at the airport. Amongst other controls, this is used to check that individual aircraft comply with departure noise limits and to fine those operators whose aircraft infringe the limits. The limits vary according to the time of day; the current departure noise limits are:

- daytime flights (between 07.00 and 11.00): 94 dB(A) Lmax
- night flights (between 23.00 and 23.30 and 06.00 and 07.00): 89 dB(A) Lmax
- night flights (between 23.30 and 06.00): 87 dB(A) Lmax
- where dB(A) $L_{max}$ represents the maximum level of sound reached in 'A' weighted decibels.

The number of infringements in the year from April 2001 to March 2002 showed a rise from the previous year, but the airport operator considers that this is a direct result of the lowering of the noise limits early in 2001. In addition, two new noise monitors were installed. The actual figures are shown in **Table 20.1**.

**Table 20.1 Infringements of noise limits at Heathrow**

| Time and Date | No. departures | No. infringements | Percentage infringements (%) |
|---|---|---|---|
| **0700 hr to 2300 hr** | | | |
| April 2000 to March 2001 | 227,054 | 77 | 0.03 |
| April 2001 to March 2002 | 224,543 | 139 | 0.06 |
| **2300 hr to 0700 hr** | | | |
| April 2000 to March 2001 | 5,527 | 157 | 2.84 |
| April 2001 to March 2002 | 6,199 | 223 | 3.76 |

Source: The Mayor's State of the Environment Report for London (GLA, May 2003b)

The amount of aircraft noise experienced by people living around Heathrow during the summer (mid June to mid September) of each year is estimated by the Environmental Research and Consultancy Department of the Civil Aviation Authority on behalf of the Department for Transport (DfT 2002). **Table 20.2** shows the area and population within the 57 dB (equivalent continuous) noise contour, which is often termed the 'onset of significant community annoyance'. Aircraft may still be heard outside the contour. The annual numbers of aircraft movements are also an issue in assessing changes in noise.

**Table 20.2 The total area and population enclosed by the 57 dB standard noise contour at Heathrow airport, 2001 and 2002.**

| Year | Area ($km^2$) | Population (000s) |
|---|---|---|
| 2001 | 116.7 | 243.4 |
| 2002 | 126.6 | 257.8 |

Source: Noise contours for Heathrow Airport 2002 (DfT 2002)

## 20.3 How will the Baseline Evolve without Further Intervention?

Potential growth in numbers and/or size of aircraft over London and in other noise sources could mean that in general ambient noise could increase without further intervention.

However, this could be counteracted by the European Environmental Noise Directive on noise assessment and management. The Directive was published in July 2002 and the UK Government has set out a series of steps aimed at agreeing national policies by 2007. These include mapping the main areas and sources of noise across England, work to establish adverse effects, techniques to improve or preserve conditions, economic analysis and prioritising actions.

A range of actions are already underway to tackle the sources of ambient noise in London. These include:

- a Traffic Noise Action Programme will be prepared for the Transport for London Road Network. Priorities for noise will be integrated with action on road safety, air quality, bus priority, cycling, walking and other improvements;
- the Mayor's guidance to London boroughs will promote 'Streets for People', Home Zones, and other traffic calming and street environmental improvement schemes;
- buses will benefit from better street surfaces. Transport for London will be trialling quiet fuel cell buses, and will investigate other quiet technologies;

- promoting better planning and design of new developments, particularly housing;
- noise minimisation will be an important component of the work of a London Sustainable Distribution Partnership and Freight Quality Partnerships in promoting efficient and environmentally responsible freight management;
- examining the scope for a Mayor's Silver Sound Award and promoting exemplar City Soundscape projects; and
- the Mayor will continue to campaign in relation to night flights from Heathrow Airport.

## 20.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can help to achieve this objective by:

- encouraging consideration of noise as a design issue in new developments, both in terms of the location of uses and building design;
- encouraging walking and cycling;
- encouraging mixed-use development, thereby providing the opportunity to reduce the need to travel;
- promoting the concept of quarters within which ambient noise can be managed, e.g. cultural quarters; and
- promoting the concept, where appropriate, of distinct quarters within which the evening economy can be managed e.g. Entertainment Management Zones.

# 21. Objective 21 - Renewable Energy

The objective is:

> *"To substantially increase the proportion of energy both purchased and generated from renewable and sustainable resources."*

## 21.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- How is renewable energy defined?
- What is the current proportion of renewable energy generation and purchase in London?
- What is the potential from renewable energy sources in London?
- How can the Plan contribute to the achievement of this objective? and
- How will the Baseline evolve without any further intervention?

Each of these questions is addressed below.

## 21.2 Summarised Baseline Information

### 21.2.1 How is renewable energy defined?

Renewable energy is the term used to cover those energy flows that occur naturally and repeatedly in the environment - energy from the sun, the wind and the oceans, and the fall of water. The heat from within the earth itself, geothermal energy, is usually regarded as renewable, although locally it cannot always sustain continuous extraction. Plant material and combustible or digestible industrial, agricultural and domestic waste materials are also regarded as renewable sources of energy.

### 21.2.2 What is the current proportion of renewable energy generation and purchase in London?

In the year 2000, less that one percent of London's energy demand came from renewable sources in London. **Table 21.1** below outlines current renewable energy capacity.

**Table 21.1 Current renewable energy capacity in London**

| Type energy generation | Existing renewable energy capacity | | |
|---|---|---|---|
| | No. of schemes | Electricity output (MWh) | Heat output (MWh) |
| Domestic PV (1.5-3kWp) | ≈50 | 150 | - |
| Commercial PV (50kWp) | ? | 188 | - |
| Domestic scale solar water heating (SWH) (1.2MWh/yr) | 2,700 | - | 3,240 |
| SWH for swimming pools (6MWh/yr) | 100 | - | 600 |
| Single small wind turbines (2kW) | 5 | 0.2 | - |
| Small/micro-hydro | 1 | 44 | - |
| Incineration of sewage | 2 | 44,900 | ? |
| Anaerobic digestion of sewage gas | 5 | 49,000 | 42,500 |
| Landfill gas | 1 | 64,000 | - |
| Biodegradable fraction of MSW* incineration | 2 | 256,000 | - |
| Total excluding MSW* incineration | 14 + solar | 158,300 | 46,300 |
| Total including MSW* incineration | 16 + solar | 414,300 | 46,300 |

Source: Development of a renewable energy assessment and targets for London (Energy Technology Support Unit 2001)

Note: * Municipal solid waste

### 21.2.3 What is the potential from renewable energy sources in London?

There are many ways that London can harness renewable energy. These are mostly small to medium scale and include passive solar design, bore hole cooling, natural ventilation, solar water heating, photovoltaics (solar power), combined heat and power fuelled by biomass such as tree waste, wind turbines and heat pumps. There is a great opportunity for London to lead the UK and Europe in demonstrating how urban areas can generate clean electricity.

The Mayor's Energy Strategy notes that London faces unique challenges and limitations in generating a higher proportion of its energy use from renewables, particularly in the short term. First, London has a highly concentrated energy demand, which means that it needs to install significantly more renewable energy capacity, in a much smaller area, to meet the same target as an equivalent area elsewhere in the UK. Second, London's dense urban environment limits the types of technologies that are suitable. For example, large wind turbines are one of the most economic renewable energy technologies with a relatively high output, but due to London's lack of suitable open spaces and relatively low wind speeds they are not so applicable here. Urban and building-based renewables, such as solar water heating and photovoltaics (PVs), and smaller-scale, or urban, wind turbines offer the biggest opportunities for London, but are currently more expensive. However, their costs vary and all are projected to come down over the next five, ten and 20 years, which will allow London to generate significantly more green

energy in the longer term. Action now to employ these technologies will pave the way for greater future benefits.

The Government has a national target of 10 percent of energy to be generated from renewable sources by 2010. To inform how this target could be met, the government requested each region to set its own target based on an assessment of the area's potential to generate renewable energy. London, although recognised by the government as a special case, agreed to take part. The results suggested a target of one to two percent total generation of renewable energy (electricity) in London as a proportion of London's electricity demand. Contributions to the target came from many sources, notably incineration of biodegradable waste, anaerobic digestion, combined heat and power from wood wastes and single large wind turbines.

London could also increase the amount of renewable electricity it imports from elsewhere in the UK.

## 21.3 How will the Baseline evolve without any further intervention?

The Mayor's Energy Strategy proposes that London should London should generate at least 665GWh of electricity and 280GWh of heat, from up to 40,000 renewable energy schemes by 2010. This would generate enough power for the equivalent of more than 100,000 homes and heat for more than 10,000 homes. To help achieve this, the Strategy contains:

- targets for the installation of photovoltaic installations, wind power, generation of heat from renewable sources, anaerobic digestion plants with energy recovery and biomass fuelled combined heat and power plants;
- requirements for planning applications referable to the Mayor to generate some of the site's energy needs from renewable energy, with boroughs expected to do the same for new significant developments; and
- establishment of showcase renewable energy programmes.

The Strategy further commits to an increase in the amount of energy purchased in London from renewable sources. Nationally, the Renewables Obligation requires power suppliers to derive from renewables a specified proportion of the electricity they supply to their customers. This proportion increases to about 10.4% in the year April 2010 - March 2011. The Renewables Obligation will remain in place until 2027.

The Mayor's Transport Strategy also contains commitments to using renewable energy, and the LDA has policies to promote the sustainable energy industries and encourage businesses to purchase green power.

## 21.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to this objective by:

- encouraging UDPs to identify and protect sites that have potential for renewable energy developments;
- encouraging development to include embedded renewable energy infrastructure, such as PV cells;
- encouraging UDPs to contain proposals and policies relating to renewable energy provision across all technologies; and
- encouraging renewable energy in the context of farm diversification.

# 22. Objective 22 - Rail and Water Freight Transport

The objective is:

> *"To promote investment in and use of sustainable rail and water freight transport."*

## 22.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What percentage of freight is currently moved by rail and water?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 22.2 Summarised Baseline Information

### 22.2.1 What percentage of freight is moved by rail and water?

Most activities in London ultimately require the collection and delivery of goods and the provision of services. Industries such as manufacturing, construction and retailing are particularly dependent on the physical movement of goods. Although the key financial and business services sector does not generate regular bulk movement, it is dependent on the prompt delivery of office supplies, documentation, services and personnel. Moreover, the retail industry is again taking on more of the responsibility for the carriage of goods with increasing home delivery. Hospitals and other public services are similarly dependent on the efficient delivery of goods and services, and all premises need efficient, timely maintenance services that involve transporting materials and equipment. Freight is carried by road, rail, water and air but road dominates, as is evident in **Figure 22.1**.

**Rail freight**

The Government's 10 Year Plan for Transport reported a 22 percent growth in rail freight nationally over the past three years, and looked forward to an 80 percent increase over the next ten years. The Strategic Rail Authority (SRA) has forecast that 16-17 percent of this increase could arise in London, with the majority of this being non-bulk items transferred from other modes. The Hatfield accident and its aftermath has affected confidence in rail freight. The period following Hatfield saw a seven percent reduction in the amount of freight carried compared to the corresponding period of the previous year. Rail freight is expected to recover from

Hatfield, helped by the Rail Regulator's recent near halving of track access charges for freight.

**Water-borne freight**

London is served by the Port of London Authority, which is the UK's biggest port handling 52.4 million tonnes of cargo, and is a vital gateway for international trade. Although serving London, much of the port is physically located outside the GLA boundary. The River Thames provides significant opportunities for sustainable freight access into the heart of the Capital. The Thames is particularly suited to the transport of bulk materials, such as waste and aggregates. The movement of waste by river is largely dependent on the continued availability of waste disposal (landfill or incineration) on the Thames.

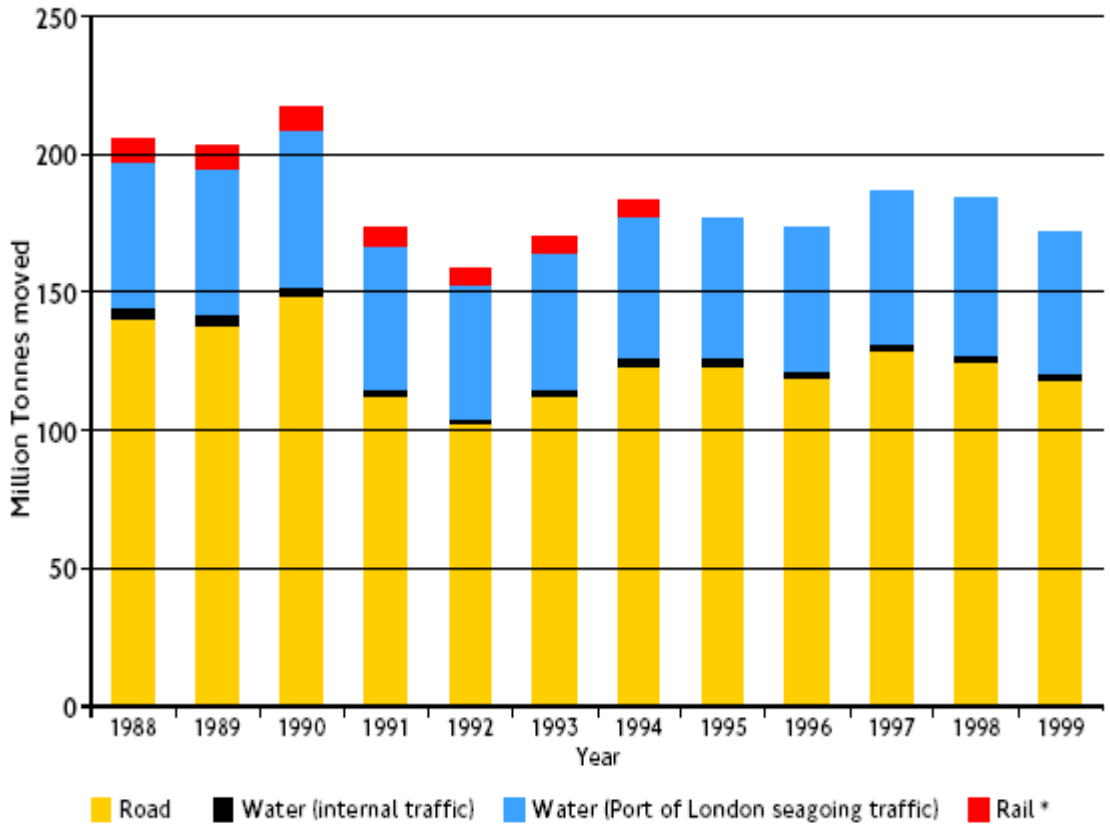



**Figure 22.1 Freight and goods movement in London by mode, 1988-1999**

Source: The Mayor' s Transport Strategy (GLA, July 2001)

## 22.3 How will the Baseline Evolve without Further Intervention?

### 22.3.1 Rail Freight

The SRA's Freight Strategy recognises that achieving the targets of the 10 Year Plan will be harder than was the case when the 10 Year Plan was published. To achieve growth in London's rail freight of the scale envisaged would require substantial increases in handling facilities. It indicates that three or four intermodal freight handling facilities would be required, along with a number of smaller facilities within the urban area. The use of some Central London rail terminals for freight distribution at night has also been suggested.

### 22.3.2 Water-borne freight

In the future there is potential for the transport of recyclables by water, though not necessarily at the same levels at which waste is currently transported. Existing and prospective use is also limited by the difficulties inherent in getting the materials transported to and from loading and unloading sites along the River. There is potential for extending freight operations on the Lea Navigation and Grand Union canals. A collaborative approach is needed across London, which focuses in particular on encouraging new facilities and protecting existing facilities, supporting water-borne freight movement through the planning regime.

## 22.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to the achievement of this objective by:

- encouraging the provision of interchange facilities from road to rail;
- promoting the concept of Freight Quality Partnerships;
- encouraging UDPs to protect existing interchange facilities;
- encouraging UDPs to protect wharves for cargo-handling uses; and
- promoting existing facilities and supporting water borne freight.

# 23. Objective 23 - Investment and Employment

The objective is:

> *"To create a climate for investment in London, with a modern employment structure based on a combination of indigenous growth and inward investment."*

## 23.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes a modern employment structure?
- What is the current employment structure in London?
- What are the current levels and patterns of investment in the capital?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 23.2 Summarised Baseline Information

### 23.2.1 What constitutes a modern employment structure?

In February 2002 the UK Government requested that England's Regional Development Agencies co-ordinate the development of Frameworks for Regional Employment and Skills Action (FRESA). The purpose of the FRESA is to provide a single framework for employment and skills support in London.

The FRESA for London defines a healthy labour market (another term for employment structure) as one that has:

- a strong demand side - with demand for jobs generated by inward investment and indigenous growth;
- a strong supply - with the number and skills of people in and seeking work matching the demand side;
- an efficient and equitable labour market - that balances the traditional Anglo-American model of market deregulation and labour flexibility (at the possible cost of greater inequalities) with the conventional European approach which favours greater regulation and social protection (at the possible cost of less rapid growth); and

- appropriate supporting conditions - such as affordable floorspace, an efficient public transport system and available and affordable childcare.

### 23.2.2 What is the current employment structure in London?

The fundamental driver of change in London's employment structure in the last thirty years has been the gain of 600,000 jobs in business services and the loss of 600,000 jobs in manufacturing. After business services the second main driver of jobs creation has been other services, primarily dominated by the leisure and people orientated services sector, and hotels and restaurants, that are closely linked to the growth of tourism. The retail sector expanded significantly in the 1990s, following earlier losses, as did employment in health and education. Most other sectors declined in employment although the overall total of job losses was overwhelmingly dominated by the decline of manufacturing.

The FRESA identifies the following facts about London's current employment structure:

- it is primarily service based;
- the majority of businesses are small to medium sized enterprises (employing less than 250 people);
- large employers account for over a third of employment;
- business start-up rates are higher than the national average although failure rates are also higher;
- creative industries represent the third largest employment sector;
- London accounts for a fifth of national long term unemployment;
- commuters account for 21 percent of employment in London;
- 23 percent of the London population have low numeracy and literacy levels; and
- the ethnic minority population experiences disproportionate levels of unemployment.

The appropriate supporting conditions for a healthy economy are threatened by office occupancy costs in London, which have now become the highest in the world, and a public transport infrastructure that is under heavy pressure (as outlined under Objective 2).

### 23.2.3 What are the current levels and patterns of investment in the capital?

Current investment levels in the capital from inward investment are considered under Objective 9.

## 23.3 How will the Baseline Evolve without any Further Intervention?

The supply of labour in London is predicted to increase. '*Planning for London's Growth*', (GLA, March 2002a), predicts a 700,000 rise in the number of employees to 2016, matched by a corresponding growth in the demand for jobs. The report also notes that future changes in the economic climate are unlikely to act as a natural brake on the population.

The trend for service-based activities to replace jobs in manufacturing and other traditional areas is expected to continue. Of the 700,000 plus new jobs projected for London by 2016, it is forecasted that 460,000 will be in financial and business services. Most of the new employment opportunities will therefore be office based. Rising population will bring with it employment in personally oriented services such as entertainment, leisure and creative industries.

The FRESA identifies a series of actions and flagship programmes that will be implemented to provide a strong supply of skills in the labour market, including:

- London Higher Level Skills - Embedding science, technology engineering and maths skills demands;
- basic skills - London-wide programme to tackle teacher/tutor supply and stimulate demand; and
- construction - linking local labour and training schemes to regeneration/development sites.

Changes in the baseline of appropriate supporting conditions for a strong economy, e.g. housing availability and public transport, are dealt with elsewhere in this report.

## 23.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to this objective by:

- encouraging UDPs to protect existing employment sites where they continue to make an important contribution to the portfolio of sites, e.g. sites that are attractive to indigenous industry;
- encouraging UDPs to identify a range of opportunities that will be attractive to a range of employment uses, for both inward investment and indigenous growth;
- encouraging environmental and other improvements that will retain and or enhance the attractiveness of existing employment areas; and
- encouraging improvements to public transport provision that will help maintain and improve the attractiveness of employment areas.

# 24. Objective 24 - Urban Design

The objective is:

> *"To promote a high quality of urban design in conjunction with sustainable construction principles and techniques."*

## 24.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes a high quality of urban design?
- What constitutes sustainable construction?
- What is the current quality of urban design in London?
- What is the current use of sustainable construction principles and techniques in London?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 24.2 Summarised Baseline Information

### 24.2.1 What constitutes a high quality of urban design?

Whilst many of the appraisal objectives are qualitative in nature this objective is particularly subjective. There is no single definition of what constitutes a high quality of urban design, particularly in the context of a city as complex as London.

The Government's Urban White Paper described good urban design as:

- the creation of lively places with distinctive character;
- the creation of places that are easy and safe to move within and through;
- the creation of streets and public spaces that are safe, accessible, pleasant to use and human in scale;
- the regeneration of run down areas;
- enabling more sustainable patterns of development through the more efficient use of land; and
- making places that are visually attractive.

The objectives of the Millennium Community projects, including development at Greenwich, demonstrate the breadth of this topic. The objectives are listed below:

- minimise resource consumption;
- protect and enhance local environment capital;
- maximise design quality;
- improve construction quality and efficiency;
- increase social inclusion and participation;
- maximise quality of life; and
- achieve long term economic viability.

In the context of London issues relating to tall buildings and maintenance of existing views and vistas are also relevant urban design issues.

### 24.2.2 What constitutes sustainable construction?

The Government's Strategy for Sustainable Construction '*Building a Better Quality of Life*' (DETR 2000b) identifies ten themes that the concept of sustainable construction embraces:

- re-use existing buildings wherever possible rather than new-build;
- design for minimum waste during the construction, operation and decommissioning of the building;
- aim for lean construction - seeking continuous improvement across the other themes;
- minimise energy in construction - both in relation to production and transportation of materials;
- do not pollute;
- preserve and enhance biodiversity;
- conserve water resources - design for increased water efficiency;
- respect people and their local environment - be responsive to the community in planning and undertaking construction, consider the workforce; and
- set targets - measure performance and benchmark against others.

### 24.2.3 What is the current quality of urban design in London?

The GLA's Architecture and Urbanism Unit has stated:

> *"Like many of the UK's cities, London has suffered from poor quality development in the past. We need a better skills base and a new culture, which values design and improves the skills of its design practitioners and its clients, especially in the public sector. We will*

*look at how international and European models of design procurement, partnering and delivery can be translated to work in the UK, and will promote the value of open and competitive design processes, as a key to securing inclusive and high quality strategies and designs.*

*London's public realm comprises everything from our doorsteps, to our great squares, parks and the River Thames. While there have been many examples of high quality building development in London, many of our public spaces have become hostile and shabby environments, underused or avoided by Londoners. This underuse is not just wasteful; it is also harmful to local communities and local economies.*

*London has many .fine residential buildings and public spaces - like the Georgian squares of Chelsea and Notting Hill - but precious few have been created in recent years."*

### 24.2.4 What is the current use of sustainable construction principles and techniques in London?

It was not possible to find information on the current use of sustainable construction principles and techniques in London as no statistical sources on this could be identified.

## 24.3 How will the Baseline Evolve without Further Intervention?

There are already a range of organisations, initiatives and policies in place to encourage good urban design and the use of sustainable construction methods both nationally and within London, for example the Government's plans for sustainable communities and SPG produced by Westminster City Council. Further intervention at the strategic level provides the opportunity to encourage a consistency of approach across such issues that might not otherwise be achieved.

## 24.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan can contribute to this objective by:

- requiring evidence of how the principles of good urban design have influenced strategic developments;
- setting out urban design principles that should apply to all new development;
- promoting the concept of sustainable construction through general policies and the preparation of supplementary planning guidance;
- providing strategic guidance on the development of tall buildings; and
- providing a framework for the protection of views.

# 25. Objective 25 - Poverty and Social Exclusion

The objective is:

*"To tackle poverty and social exclusion in areas of particular need."*

## 25.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- How is poverty defined?
- Who is affected by poverty?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 25.2 Summarised Baseline Information

### 25.2.1 How is poverty defined?

There are different ways of defining and measuring poverty. The approach taken in the Mayor's consultation document '*London Divided - Income Inequality and Poverty in the Capital*' (GLA, November 2002) is to use disposable household incomes as a proxy measure for standards of living. This approach is based on the assumption that the standards of living of individuals are in the main determined by the income of the household in which they live rather than, for example, by their own individual income. This approach is particularly relevant to London where the polarisation of incomes is more extreme than in other parts of Great Britain.

Clearly, standard of living will depend on the number of people in the household. It is therefore necessary to convert household income into an equivalised income which takes account number of individuals in the household and the ages of children. Whether disposable income is measured before or after housing costs makes a major difference to income distribution in London and can distort comparisons with other regions in the UK. It is therefore important to specify which measure is being used.

The income poverty threshold used is 60 percent of the national median disposable household income.

### 25.2.2 Who is affected by poverty?

Income poverty affects one in four of London's population. It is particularly prevalent in Inner London, where the scale of income poverty for children, working age adults and pensioners is significantly greater than for any region in Great Britain.. **Table 25.1** provides a comparison of poverty in London with other regions in England. The Mayor's consultation document '*London Divided - Income inequality and poverty in the capital*' (GLA, November 2002) identifies the following characteristics:

After housing costs 41 percent of children in London are living in income poverty. This means that London has the highest incidence of child poverty (after housing costs) of any region in Great Britain. In Inner London this rises to 53 percent of children, compared to 33 percent in Outer London and 31 percent nationally. The North East has the next highest incidence of child poverty at 37 percent.

Thirty percent of working age adults are in income poverty after housing costs in Inner London compared to 19 percent in both Outer London and Great Britain as a whole. The North East has the next highest incidence of poverty after housing costs for working age adults, at 23 percent.

Thirty six percent of pensioners in Inner London are in poverty after housing costs compared to 25 percent nationally and 21 percent in Outer London. Again the North East has the next highest rate after Inner London, at 28 percent.

The incidence of income poverty is highest for children in workless lone parent and couple families. The high child poverty rate registered in London is to a large extent due to the fact that 33 percent of children in London are living in workless families, compared to 22 percent nationally.

73 percent of Pakistani and Bangladeshi children and 55 percent of black children are living in income poverty after housing costs.

**Table 25.1 Percentage of children, working age adults and pensioners living in poverty, 2000/2001 in different regions of the UK**

| Region | | Percentage of children (%) | | Percentage of working age adults (%) | | Percentage of pensioners (%) | |
|---|---|---|---|---|---|---|---|
| | | Before Housing Costs | After Housing Costs | Before Housing Costs | After Housing Costs | Before Housing Costs | After Housing Costs |
| England: | | 21 | 30 | 14 | 19 | 22 | 25 |
| of which | North East | 32 | 37 | 19 | 23 | 25 | 28 |
| | North West and Merseyside | 22 | 32 | 16 | 21 | 20 | 23 |
| | Yorkshire and the Humber | 24 | 29 | 16 | 19 | 22 | 26 |
| | East Midlands | 25 | 29 | 15 | 18 | 28 | 26 |

| Region | | Percentage of children (%) | | Percentage of working age adults (%) | | Percentage of pensioners (%) | |
|---|---|---|---|---|---|---|---|
| | | Before Housing Costs | After Housing Costs | Before Housing Costs | After Housing Costs | Before Housing Costs | After Housing Costs |
| West Midlands | | 26 | 37 | 16 | 21 | 25 | 27 |
| Eastern | | 12 | 22 | 9 | 14 | 23 | 25 |
| Greater London: | | 25 | 41 | 15 | 23 | 17 | 26 |
| of which | **Inner London** | **36** | **53** | **18** | **30** | **18** | **36** |
| | **Outer London** | **19** | **33** | **12** | **19** | **17** | **21** |
| South East | | 11 | 22 | 8 | 13 | 19 | 21 |
| South West | | 16 | 27 | 14 | 19 | 20 | 24 |
| Scotland | | 25 | 30 | 17 | 22 | 20 | 23 |
| Wales | | 26 | 33 | 16 | 21 | 23 | 22 |
| **Great Britain** | | **21** | **31** | **14** | **19** | **22** | **25** |

Source: London Divided - Income inequality and poverty in the capital: summary (GLA, November 2002)

## 25.3 How will the Baseline Evolve without Further Intervention?

The east and south contain some of the most deprived wards in London, which may benefit from committed schemes such as the Thames Gateway and Crossrail. The need for regeneration schemes to be more attuned to the needs of local people has been acknowledged and is discussed under Objective 6.

## 25.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could contribute to this objective by:

- setting appropriate targets for the provision of affordable homes and encouraging greater housing choice;
- requiring strategic proposals to demonstrate that consideration has been given to social impacts;
- encouraging the retention and enhancement of existing facilities, e.g. convenience shops;
- encouraging new economic development to enhance job opportunities;

- improving access to jobs particularly to marginalised groups by improving public transport facilities;
- improving access to skills and employment through partnership working; and
- encouraging urban regeneration initiatives.

# 26. Objective 26 - The Cityscape

The objective is:

> *"To maintain and enhance the quality and integrity, and distinctiveness of the cityscape."*

## 26.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What makes an integral and distinctive cityscape?
- What is the current quality of London's cityscape and why is it important?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 26.2 Summarised Baseline Information

### 26.2.1 What makes an integral and distinctive cityscape?

The term cityscape relates to the juxtaposition of many different types of buildings and spaces. Buildings and places do not stand in isolation but instead provide the experience of the cityscape.

### 26.2.2 What is the current quality of London's cityscape and why is it important?

Two thousand years of building have left layers of history in London, reflecting the city's social, political and economic heritage. Today London has a great wealth of fine historic buildings and spaces including four World Heritage Sites and many buildings of national importance that add to the capital's identity, attractiveness and cultural richness. The cityscape helps to attract tourists and is an important part of London's economy.

## 26.3 How will the Baseline Evolve without Further Intervention?

Some notable examples of London's historic cityscape have been afforded protection as strategic views. In the absence of further intervention, existing policy relating to the protection of strategic views would continue to be applied. In particular, Regional Planning Guidance 3 '*Strategic Guidance for London Planning*

*Authorities*' (RPG3) provides for the protection of ten strategic views of St Paul's Cathedral and the Palace of Westminster, and advises that boroughs should protect important local views, including those which encompass historic and notable buildings and vistas. RPG3 also contains guidance on how new buildings should fit into the townscape.

## 26.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could contribute to this objective by:

- identifying strategic views and setting the strategic policy context for assessing the impact of proposals on them;
- encouraging urban design that is innovative whilst complimenting historic buildings and views where relevant;
- providing the strategic context for preparing and determining applications for tall buildings;
- encouraging public access to tall buildings so that the cityscape can be appreciated; and
- encouraging consideration of the contribution of local context in major development.

# 27. Objective 27 - Historic Environment and Cultural Assets

The objective is to:

> *"Maintain and enhance the historic environment and cultural assets of London."*

## 27.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes the historic environment and cultural assets of London?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 27.2 Summarised Baseline Information

### 27.2.1 What constitutes the historic environment and cultural assets of London?

London is the UK's cultural capital and a leading international cultural centre. In its broadest sense, the historic environment and cultural assets of London encompasses: the national and international great institutions, collections and museums; libraries; traditional ceremonies and historic buildings; sports facilities and events (for example Wimbledon or the London Marathon); the creative sector (including publishing); a cutting-edge nightlife; large scale events like the Notting Hill Carnival; and a huge diversity of local arts events and festivals. The urban environment, historic and new architecture, the River Thames, the skyline, public spaces and parks, religious and public buildings all further contribute to London's historic and cultural identity.

Cultural and historic assets in London include:

- four world heritage sites: Greenwich, Westminster Abbey, the Tower of London and Kew Gardens;
- 150 scheduled monuments;
- 18,000 Listed Buildings;
- 11 museums of designated national importance and 19 national museum venues;

- 860 conservation areas (25 percent of the area covered by London);
- more than one-third of the UK's 1,600 subsidised performing arts companies;
- nearly 400 public libraries, and 16 million books and periodicals stocked in the British Library
- 5,480 sports and recreation sites (12.9 percent of the UK total);
- six Premiership football clubs, three top division rugby clubs and three county cricket clubs.

London's creative and cultural sector is of great economic importance. It generates a total estimated revenue of £25 to £29 billion per annum, employing more than 500,000 people in the creative industries alone and attracting 56 percent of the UK overseas visitors market. It is one of main things that residents and businesses like about London.

## 27.3 How will the Baseline Evolve without Further Intervention?

London's role a global cultural centre will face increasing competition from other cities. There are a number of issues to consider.

The competition to stage the largest international sporting, cultural and commercial events is likely to become tougher as other major cities invest heavily in facilities, planning and the bidding process. London has missed out on hosting major events in the past because its facilities are perceived as inadequate. Some major institutions are struggling to maintain their world-class programmes because of inadequate facilities. Broad cultural and spatial constraints, such as the lack of sites of appropriate scale and location to which an institution could relocate, are likely to have an effect. Further, greater knowledge and co-ordination of significant events is needed to promote what London already has in a more coherent and proactive way.

In 2000, around 5.2 percent of Grade I and Grade II* listed buildings in London were defined as 'at risk' (i.e. historic buildings at risk through neglect and decay (rather than demolition) or vulnerable to becoming so).

On the other hand, the host of quality events and festivals taking place in London will help to maintain the city's status. The new Wembley Stadium will provide a world-class sporting arena in London and the Mayor, the Government and the British Olympics Association are spearheading a London bid for the 2012 Olympics focussed primarily on East London. The major historical assets of London will continue to be protected.

The Mayor has limited powers in this area. Nonetheless, priorities of the Mayor's Culture Strategy include:

- endorsing and promoting the educational work of London's cultural institutions;
- promoting local cultural provision;

- supporting the development of cultural quarters; and
- promoting the cultural potential of London's green space and waterways.

## 27.4 How can the Plan contribute to the Achievement of this Objective?

The Plan could contribute to this objective by:

- encouraging the preservation and enhancement of existing historical assets and their retention, where appropriate, when new development is proposed;
- encouraging the development of cultural quarters in order to manage the impacts that facilities have on the host community, e.g. noise;
- encouraging the identification of new facilities and providing the strategic context within which proposals can be assessed;
- encouraging good accessibility to historic and cultural facilities for all; and
- promoting a 'Percent for Art' policy to be incorporated in UDPs.

# 28. Objective 28 - Development and Flooding

The objective is:

> *"To avoid development that will impact on areas at high risk from flooding."*

## 28.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What constitutes flood risk?
- What is the extent of land at risk from flooding?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 28.2 Summarised Baseline Information

### 28.2.1 What constitutes flood risk?

London is vulnerable to three types of flooding: the inundation of floodplains by river water; local flooding when the drainage network is overwhelmed by intense rain storms; and by tidal surges in the Thames. Climate change could adversely affect all three by: increasing the intensity of rainstorms leading to flash floods from tributaries and the drainage system; bringing more frequent intense winter rainfall leading to higher and more frequent threat of flooding from the Thames and its tributaries ; and by raising sea levels and potentially increasing winter storminess leading to more frequent closures of the Thames Barrier.

### 28.2.2 What is the extent of land at risk from flooding?

The most significant flood threat to London arises from tidal surges caused by low pressure systems travelling south or southwest over the North Sea, and the funnelling of water from the southern North Sea into the Thames Estuary and hence London. Coastal flooding in 1953 highlighted the potential threat to London, and resulted in a national flood defence strategy culminating with the completion of the Thames Barrier in 1983.

### 28.2.3 How will the Baseline Evolve without Further Intervention?

London is protected from major flooding by a combination of tidal defences (the Thames Barrier and associated sea defence system), and river defences upstream

of the Barrier. The current flood defence standard for the tidal defences is estimated to be about a 2000 to 1 chance of flooding in any year or 0.05 percent risk of flooding. As sea level rises this is declining to its original design standard of a 1000 to 1 chance, or 0.1 percent risk of flooding, by 2030. Thereafter, if improvements are not made the defence standard will continue to fall.

The defences are being reviewed in the light of expected climate changes. Preliminary estimates of the cost of providing a 0.1 percent standard to the year 2100 show that a major investment in the flood defences infrastructure of the order of £4 billion may be required within the next 40 years. The Thames river defences through Central London have an indicative standard of 0.1 percent risk of flooding, however the standards of protection to some limited Thames-side areas and on many of the tributary rivers are lower. The likely trend of increases in incidence and severity in floods within the Thames catchment will further increase the flood risk to these reaches. This will require enhanced levels of flood risk management. New development is needed to address the demands of a growing population. These developments, such as in the Thames Gateway or in other low-lying parts of London, will need to be designed and located in order to suitably manage any risk of flooding.

## 28.3 How can the Plan Contribute to the Achievement of this Objective?

The Plan can help meet this objective by:

- ensuring that flood risk is considered in all developments, particularly strategic developments such as the Thames Gateway;
- encouraging incorporation of appropriate forms of Sustainable Urban Drainage in all development; and
- encouraging UDPs to adopt a risk based approach to development in areas at risk from flooding, in line with relevant guidance at the national level.

# 29. Objective 29 - Tree Cover and Woodland

The objective is:

> *"To increase tree cover as appropriate and ensure active and sustainable management of existing woodland."*

## 29.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What is the current extent of tree cover in London?
- What are the current practices involved in the management of existing woodland?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 29.2 Summarised Baseline Information

### 29.2.1 What is the current extent of tree cover in London?

The distribution of broadleaved woodland in London is shown in **Figure 29.1**. London contains over 7,000 hectares of woodland (about 4.6 percent of the total land area), a third of it ancient (i.e. continuously wooded since at least AD1600). However, woodland is not evenly distributed across the capital. As might be expected, most woodlands are located in the outer boroughs and Bromley alone contains almost a quarter of London's woodland. There is a particular lack of woodland in central boroughs north of the Thames and eastwards into Essex. The seven boroughs along the Thames from Hammersmith & Fulham to Barking & Dagenham, have less than 20 hectares of woodland between them, denying their residents easy access to this popular habitat.

In addition to this woodland, there are large numbers of trees in London's streets, gardens and parks.

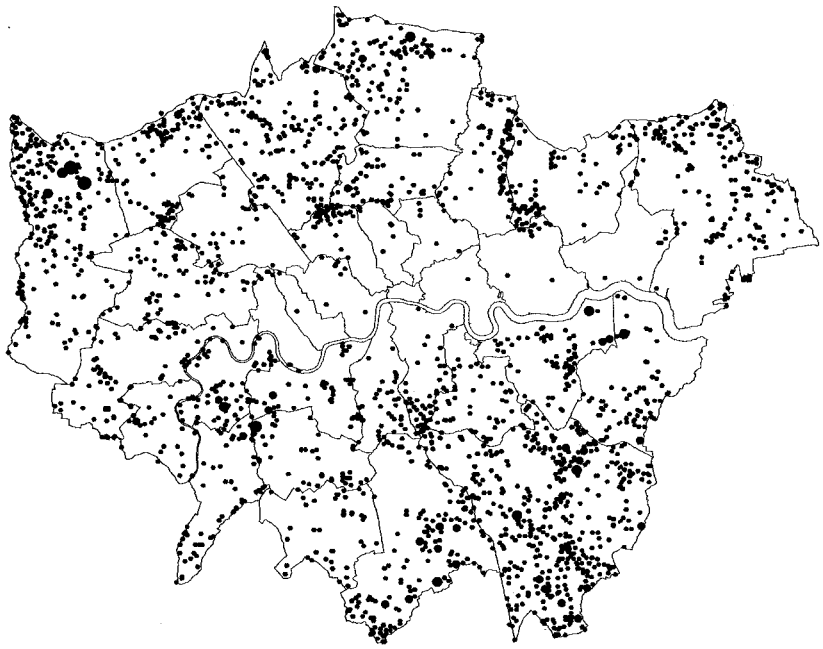


**Figure 29.1 Distribution of broadleaved woodland in London**

Source: The Mayor's Biodiversity Strategy (GLA, July 2002)

### 29.2.2 What are the current practices involved in the management of existing woodland?

Lack of appropriate management is a major factor currently affecting woodland habitat in London. Much of the woodland was traditionally managed as coppice with standards (where single trees were left to mature, surrounded by trees that were cut on a rotation to provide thinner wood). However, when markets for small wood fell away, woods were left unmanaged and this has often resulted in the loss of understorey, tree regeneration and ground flora and the death of old coppice. Cessation of coppicing has caused particularly dramatic changes in hornbeam woods due to the dense canopy and early leafing of this species.

Although unmanaged coppice woodland can revert to a more natural structure eventually, much of the associated flora and fauna would be lost in the interim. Therefore, management may be required to recreate a varied structure for the flora and fauna adapted to this type of woodland. Suitable management may include restoration of a coppice regime, but other techniques can be appropriate. In some cases it may be preferable not to manage the woodland.

Various factors need to be considered to determine suitable management: size; history; existing woodland structure and nature conservation importance; management costs; extent of amenity use; public concern; extent of local involvement; location and setting; use of timber and production of woodland

products; and the extent and value of scrub. Woodland should not be planted or allowed to develop on other habitat of value to nature conservation.

## 29.3 How will the Baseline Evolve without Further Intervention?

Woodland is one of the richest and best loved of wildlife habitats and, because of its popularity, woodlands are among the most protected of habitats. A number of designations cover London's woodland and offer different degrees of protection. These include:

- National Nature Reserves (e.g. Ruislip Woods);
- Sites of Special Scientific Interest (e.g. Bentley Priory, Harrow; Downe Bank and High Elms, Bromley; Ken Wood, Camden; Oxleas Wood, Greenwich;); and
- Local Nature Reserves (e.g. Sydenham Hill Wood, Southwark; Queen's Wood, Haringey; Oak Hill Woods, Barnet).

Richmond Park and Wimbledon Common are candidate Special Areas of Conservation (SAC) under European legislation for their stag beetle interest. Epping Forest SAC is being proposed for its beech woodland interest among other features. Most of London's other significant areas of woodland are protected by UDPs under local nature conservation designations.

Providing these protection measures remain woodland areas in London should remain stable or increase in the future.

There are numerous tree and woodland planting schemes, especially in the Thames Gateway, which seek to increase tree and woodland cover. Care is required to ensure that these schemes do not damage existing ecological value of grasslands and other open habitats.

In contrast, single trees can be less well protected. The number of street trees in some parts of London is declining as trees are removed in response to a perceived threat of property damage.

## 29.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could contribute to this objective by:

- encouraging the protection of existing areas of woodland;
- encouraging provision for new trees and woodland within development where appropriate;
- identifying the contribution trees and woodlands can play e.g. health agenda and provision of biomass; and
- encouraging the appropriate management of trees and woodland.

# 30. Objective 30 - London's Image

## 30.1 Introduction

The objective is:

> *"To improve the image of London as an exemplary sustainable city."*

## 30.2 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- How does London currently strive to be sustainable?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 30.3 Summarised Baseline Information

### 30.3.1 How does London currently strive to be sustainable?

The Mayor of London's vision is:

> *"To develop London as an exemplary, sustainable World City, based on three interwoven themes:*

- strong diverse long term economic growth
- social inclusivity to give all Londoners the opportunity to share in London's future success
- fundamental improvements in London's environment and use of resource."[10]

This Objective is an over-arching objective that cuts across many, if not all, of the other 32 appraisal Objectives that have been used to appraise the Plan. Rather than repeat the information that has been collected for other Objectives, **Table 30.1** below provides an indication of relevant Objectives that relate to each of the three themes above.

[10] GLA http://www.london.gov.uk/londonissues/

**Table 30.1 Summary of appraisal Objectives relating to the themes of the Mayor of London's vision for London**

| Theme | Related appraisal Objectives |
|---|---|
| Strong diverse long term economic growth | 8,9,22,23,30 |
| Social inclusivity to give all Londoners the opportunity to share in London's future success | 3,6,12,13,14,16,25,30,31,32,33 |
| Fundamental improvements in London's environment and use of resources | 1,2,4,5,7,10,11,15,17,18,19,20,21,24, 26,27,28,,29,30 |

## 30.4 How will the Baseline Evolve without Further Intervention?

The analysis of the baseline under each of the objectives identified in **Table 30.1** provides an indication of how the baseline is anticipated to evolve under each of the broad themes identified in the vision.

## 30.5 How can the Plan Contribute to the Achievement of this Objective?

The analysis under each of the objectives provides an indication of how the Plan could contribute to each of the broad themes identified in the vision. Overall, the Plan can also help by promoting good practice and developing good practice guidance.

# 31. Objective 31 - Discrimination

The objective is

> *"To actively challenge discrimination against all marginalised groups in a consistent and comprehensive way."*

## 31.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- Who are the marginalised groups and what are the effects of marginalisation/ discrimination?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 31.2 Summarised Baseline Information

### 31.2.1 Who are the marginalised groups and what are the effects of marginalisation/discrimination?

The main marginalised groups in London are:

- women;
- black and minority ethnic people;
- disabled people;
- faith groups;
- lesbians, gay men, bisexuals and transgender people;
- children and young people; and
- older people.

The GLA's '*Equalities Framework 2002-04*' (GLA, May 2003a) contains information on the effects of marginalisation and discrimination in London. Key findings are summarised below under the headings housing, health and employment.

**Housing**

The level of overcrowding in London was double that nationally and higher for households in all ethnic minority groups than for White households.

More Black, Bangladeshi and Chinese households lived in flats than in houses, whereas most Indians and Pakistanis lived in houses.

More than half of all Bangladeshi households in London were overcrowded, rising to two thirds of those renting from the local authority.

Nearly one in five Black African households renting privately lacked or shared basic amenities.

**Health**

Because of their older age profile, White Londoners had the highest proportion with a limiting long-term illness overall.

Pakistanis and Bangladeshis had the highest rates of limiting long-term illness in the 30-64 age range, rising to nearly half of men aged 60-64.

Black African Londoners had higher rates of limiting long-term illness than Black Africans living elsewhere in Great Britain.

**Employment**

The gap between men and women's earnings is higher in London than elsewhere in the country. In 2002, women's hourly earnings were only 76 percent of male earnings, compared with 81 percent nationally. In the late 1970s the pay gap in London was lower than at a national level, but since then London has fallen behind and the gap has been widening since 1999.

London has the highest rate of unemployment for women in the UK. Official unemployment figures are likely to understate the difficulties many women face, with many women withdrawing from the labour market because they cannot find suitable jobs or childcare.

Overall unemployment is over two and a half times higher for black and minority ethnic groups than for White people in London. This conceals a wide variation between different groups. The rate for the Indian group in the Autumn of 2000/2001 was 5.3 percent, not much higher than the White rate of 4.9 percent, but for the black African group it was 20 percent and for the Bangladeshi group 32 percent. The highest rates of unemployment were among the Bangladeshis at over 50 percent of some age groups.

More than 40 percent of Chinese residents aged 23-26 were qualified above A level standard - double the proportion among Whites and Indians of the same ages.

The problems facing black and ethnic minority women are reflected in the fact they make up 44 percent of unemployed women in London. Less than a quarter of Bangladeshi women and a third of Pakistani women were working or looking for work, compared with over two thirds of Black Caribbean women. Fewer than one in five Bangladeshi women aged 25-59 were economically active and 98 percent of Bangladeshi women aged 18-29 were 'unqualified'.

Disabled people are more likely to be unemployed than non-disabled people. In 2001/2002, 12.2 percent of disabled men and 9.6 percent of disabled women in

London were classified as unemployed, compared with 6.8 percent of non-disabled men and 5.4 percent of non-disabled women. Nationally, 52 percent of disabled women and 44 percent of disabled men are classified as 'economically inactive' but a third of these people want a job.

Earnings of disabled people tend to be lower than those of non-disabled people. In 2001/2002, disabled people's average hourly earnings in London were over 19 percent below those of non-disabled people.

The largest differences in occupational distribution were between men and women rather than between ethnic groups.

## 31.3 How will the Baseline Evolve without Further Intervention?

There are many policies in place to reduce discrimination against marginalised groups e.g. the GLA's Equality Framework and Metropolitan Police initiatives. The following demographic factors may influence the way in which the baseline will develop e.g. if existing trends continue.

The population of ethnic minority groups is growing, mainly due to natural growth (i.e. more births than deaths). More than one in three Londoners is now from an ethnic minority group, including mainly White minority groups such as Irish, Cypriots and Turks.

The number in the White group is declining due to net migration out of London.

The number of Londoners of mixed ethnic origin is growing, which is reflected in the introduction of a 'Mixed' category in the ethnic group question in the 2001 Census.

The two largest minority groups, the Indian and Black Caribbean groups, are growing by the smallest amounts. The Black African group is set to grow the fastest, almost doubling in size between 1991 and 2011.

While the number of Indian children is expected to decrease by one percent between 1991 and 2011, the number aged 65 and over is expected to more than double.

International in- and out-migration have been high and are expected to remain so.

## 31.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could contribute to the achievement of this objective by:

- encouraging improved access to facilities and services;
- encouraging access to good quality affordable housing;
- encouraging improved access to employment opportunities;

- encouraging improved access to democratic processes and stakeholder engagement;
- encouraging the provision of affordable childcare;
- assessing the impact of its policies on marginalised groups; and
- encouraging greater awareness and understanding of local social and cultural distinctiveness.

# 32. Objective 32 - Employment

This objective is:

> *"To ensure Londoners have access to opportunities for employment and occupation."*

## 32.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- What are the current employment rates across London?
- How will the baseline evolve without further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 32.2 Summarised Baseline Information

### 32.2.1 What are the current employment rates across London?

London has the second-lowest percentage of its working age population in employment of any region of England. This pattern at Greater London level is largely driven by particularly low levels of employment in Inner London. Only 64.5 percent of the working age population in Inner London is in employment. By contrast, the employment rate in Outer London is close to the national average at 74 percent. In 2000/2001, ILO unemployment in Inner London was 9.4 percent, the highest for any sub-region of England.

There is an enormous variation in unemployment rates between boroughs, ranging from more than 16 percent in Hackney to less than four percent in Bromley (**Table 32.1**). Five boroughs had unemployment rates higher than 10 percent, or roughly twice the English average. Eight of the ten boroughs with the highest unemployment rates in London are in Inner London.

**Figure 32.1** shows unemployment for ethnic minority groups in London. With the exception of Indian, Chinese, White and Asian and Other Asian groups, all non-White minority groups show rates of unemployment which are more than twice the rate for London's White population.

32 percent of women of working age in London are inactive, compared with 28 percent of women in Great Britain. '*London Divided*' (GLA, November 2002) identifies lack of affordable childcare as an underlying driver for this.

**Table 32.1 Economic activity, employment and unemployment rates by London borough 2000/2001**

| Area | Persons of working age (16-59/64) | | | Persons aged 16+ | | |
|---|---|---|---|---|---|---|
| | Economic Activity Rate (%) | Employment Rate (%) | ILO Un-employment Rate (%) | Economic Activity Rate (%) | Employment Rate (%) | ILO Un-employment Rate (%) |
| Barking and Dagenham | 67.1 | 63.1 | 6.0 | 53.2 | 50.1 | 5.9 |
| Barnet | 78.8 | 74.1 | 6.0 | 66.4 | 62.5 | 5.9 |
| Bexley | 79.5 | 76.4 | " | 62.0 | 59.6 | " |
| Brent | 70.7 | 64.1 | 9.3 | 60.5 | 54.9 | 9.2 |
| Bromley | 83.0 | 79.9 | 3.8 | 65.7 | 63.3 | 3.7 |
| Camden | 71.6 | 66.9 | 6.5 | 63.1 | 59.1 | 6.4 |
| City of London | " | " | " | " | " | " |
| Croydon | 80.1 | 75.7 | 5.5 | 66.8 | 63.3 | 5.3 |
| Ealing | 70.2 | 64.9 | 7.5 | 60.5 | 56.1 | 7.3 |
| Enfield | 74.7 | 70.5 | 5.6 | 61.1 | 57.8 | 5.5 |
| Greenwich | 78.8 | 71.0 | 9.8 | 65.0 | 58.6 | 9.8 |
| Hackney | 65.4 | 54.6 | 16.5 | 57.3 | 47.9 | 16.4 |
| Hammersmith and Fulham | 74.0 | 69.7 | " | 66.0 | 62.3 | " |
| Haringey | 67.1 | 58.4 | 12.9 | 59.1 | 51.6 | 12.7 |
| Harrow | 82.7 | 78.5 | 5.1 | 69.2 | 65.7 | 5.0 |
| Havering | 82.0 | 80.4 | " | 62.3 | 61.2 | " |
| Hillingdon | 78.1 | 75.2 | " | 65.3 | 62.9 | " |
| Hounslow | 79.6 | 75.7 | " | 69.1 | 65.7 | " |
| Islington | 66.6 | 60.2 | 9.6 | 56.6 | 51.3 | 9.4 |
| Kensington and Chelsea | 75.0 | 69.4 | 7.5 | 67.6 | 62.5 | 7.5 |
| Kingston-upon-Thames | 79.4 | 76.4 | " | 66.0 | 63.1 | 4.4 |
| Lambeth | 78.0 | 70.6 | 9.5 | 67.1 | 60.7 | 9.6 |
| Lewisham | 77.2 | 71.7 | 7.2 | 66.6 | 62.0 | 6.9 |
| Merton | 78.9 | 74.2 | 6.0 | 66.4 | 62.3 | 6.1 |
| Newham | 59.1 | 51.1 | 13.6 | 51.1 | 44.2 | 13.5 |
| Redbridge | 73.6 | 68.0 | 7.6 | 60.9 | 56.4 | 7.4 |
| Richmond-upon-Thames | 87.4 | 84.5 | " | 75.4 | 72.9 | " |
| Southwark | 70.7 | 61.9 | 12.4 | 61.1 | 53.7 | 12.1 |

| Area | Persons of working age (16-59/64) | | | Persons aged 16+ | | |
|---|---|---|---|---|---|---|
| | Economic Activity Rate (%) | Employment Rate (%) | ILO Un-employment Rate (%) | Economic Activity Rate (%) | Employment Rate (%) | ILO Un-employment Rate (%) |
| Sutton | 87.9 | 84.6 | " | 73.1 | 70.4 | " |
| Tower Hamlets | 60.9 | 53.6 | 11.9 | 51.3 | 45.2 | 11.8 |
| Waltham Forest | 75.8 | 71.4 | 5.9 | 64.8 | 61.0 | 5.7 |
| Wandsworth | 82.7 | 78.1 | 5.5 | 71.3 | 67.2 | 5.7 |
| Westminster, City of | 70.8 | 64.6 | 8.7 | 62.9 | 57.5 | 8.6 |
| **Inner London** | **71.3** | **64.5** | **9.5** | **62.1** | **56.3** | **9.4** |
| **Outer London** | **78.2** | **73.9** | **5.5** | **64.9** | **61.4** | **5.4** |
| **Greater London** | **75.4** | **70.2** | **7.0** | **63.8** | **59.4** | **6.9** |
| **Great Britain** | **78.6** | **74.4** | **5.4** | **63.1** | **59.8** | **5.3** |

Source: London Divided - Income inequality and poverty in the capital (GLA, November 2002)

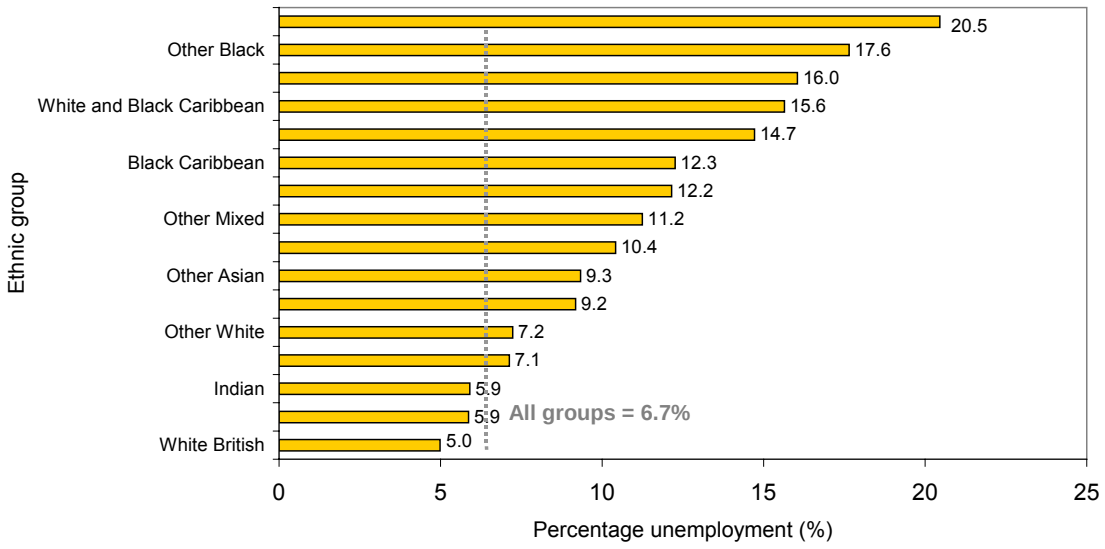



**Figure 32.1 Unemployment rates of Greater London residents by ethnic group (census data), 2001**

Source: GLA (Based on 2001 Census data)

Notes: Unemployment rates refer to the number unemployed (Census definition) expressed as a percentage of economically active residents in the relevant group. Economically active full-time students have been excluded from the calculations.

## 32.3 How will the Baseline Evolve without Further Intervention?

The cost of living in London is likely to remain higher than elsewhere in Great Britain and that to the extent that this is driven by housing costs, the difference has if anything increased in recent years. This is not reflected in earnings growth across the board, and would suggest that access to certain types of lower paid employment is increasingly confined to those who either have lower living costs (due to not having to support children, or pay for childcare, for example) or who are not completely dependent on their own earnings (for example, belonging to a household with someone else in employment). Those who do have to support children, and who do not have the qualifications to command more highly paid work, are at risk of being priced out of the labour market.

This Objective relates strongly to Objective 23 and the review of the baseline for that Objective identifies a range of relevant initiatives that are on-going.

## 32.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could contribute to the achievement of this objective by:

- encouraging the provision of affordable housing and greater housing choice;
- encouraging where appropriate the provision of affordable child-care facilities in developments;
- encouraging regeneration schemes that are sensitive to local needs;
- encouraging the provision of a range of employment opportunities throughout London through skill improvement and partnership working with LDA; and
- Encouraging economic development and employment across a range of sectors.

# 33. Objective 33 - Respecting People

The objective is:

*"To respect people and value their contribution to society."*

## 33.1 Baseline Information Needs

In order to establish the baseline situation for this objective the following questions need to be addressed:

- How do we respect people and value their contribution to society?
- What is the current situation in London in terms of respecting people and valuing their contribution to society?
- How will the baseline evolve without any further intervention? and
- How can the Plan contribute to the achievement of this objective?

Each of these questions is addressed below.

## 33.2 Summarised Baseline Information

### 33.2.1 How do we respect people and value their contribution to society?

For people to be respected and their contribution to society valued, the following issues are important, each of these is considered below:

- consultation and engagement in decision-making;
- a strong sense of community and interaction between different groups that can help people to belong and participate together in activities.; and
- social inclusion, i.e. no discrimination, access to employment, access to good quality affordable housing, access to public transport, access to medical and other community facilities, access to schools, access to affordable facilities for community groups and voluntary bodies, a safe environment with little or no crime and a high quality environment

**Consultation and engagement**

Central to the baseline for this Objective is the extent to which people are consulted and their views taken into account in decision-making. Many Londoners appear to be disillusioned or apathetic about local democratic processes: turnout at the first elections for the Mayor of London and the London Assembly, in 2000, was only 33.5 percent. Research by the Electoral Commission (Electoral Commission 2003) shows that, nationally, there is a positive correlation between turnout and the proportion of residents who are older people, home owners, in white-collar jobs, self employed or in full-time employment. Turnout is lower among

people living in local authority housing, the unemployed, permanently sick and black or Muslim residents.

There have been many efforts in recent years to increase engagement at the local, regional and national levels. Local Strategic Partnerships (LSPs), the new vehicles for delivering local neighbourhood renewal, are required to involve and consult with local communities. The core public sector organisations in London have considerable statutory consultation responsibilities. '*Consulting London: a framework for the core GLA, LDA, LFEPA, MPA and TfL*' (GLA, September 2003a) outlines the GLA group's approach to consultation and follows best practice guidance.

### Community belonging and interaction

The population of London is highly transient, with large numbers of people (mainly young) moving to London to work or study, and older people moving out of the city. This may make it less likely for people to identify strongly with the community in which they live, although they may feel a sense of belonging to different community groupings, for example the gay or student community or a faith group. A March 1998 survey found that just under two-thirds of those living in London considered themselves to be 'Londoners'; however, a substantial minority, three in ten, did not, and 14% strongly disagreed (Electoral Commission 2003). People who have less roots in London are less likely to be on the electoral register and therefore to vote.

### Social inclusion

The factors which are considered to contribute to the creation of an inclusive society are covered elsewhere in this report and summarised in **Table 34.1**.

**Table 34.1 Summary of appraisal Objectives relating to factors necessary help create an inclusive society**

| Factor | Related appraisal objectives |
|---|---|
| No discrimination | 31 |
| Access to employment | 23, 32 |
| Access to good quality affordable housing | 14 |
| Access to public transport | 1 |
| Access to medical and other community facilities | 3, 12 |
| Access to schools | 3 |
| Access to affordable facilities for community groups and voluntary bodies | 3, 6 |
| A safe environment with little or no crime | 13 |
| A high quality environment | 5, 10, 11, 18, 20, 24 |

## 33.3 How will the Baseline Evolve without Further Intervention?

The low turnout at London elections is part of national and international trend. Research sponsored by the Electoral Commission (2003) suggests that only one third of Londoners are definitely expecting to vote in the 2004 elections, and only ten percent of those aged under 25.

However, if the new LSPs are successful in delivering improvements then people may become more involved in local community processes. A number of other policies and initiatives are also being pursued to promote respect between people and communities. The Mayor's Culture Strategy contains policies to support cultural diversity in London and raise the profile of a wide range of organisations and events, for example the Notting Hill Carnival, Chinese New Year and Diwali. Priorities include:

- establishing a Black and Asian Heritage Commission and continuing to support existing black and Asian projects and build capacity;
- development of a London mela; and
- promoting local cultural provision and its role in community empowerment, initiating a network of community and street festivals and promoting volunteering.

This Objective also has links to many other Objectives already reviewed in this report, most notably Objective 16 and 31 but also Objectives 3, 6, 11, 12, 13, 14, 25, 32. In order to gauge how the baseline for this Objective may evolve the Objectives mentioned above should be referred to.

## 33.4 How can the Plan Contribute to the Achievement of this Objective?

The Plan could contribute to the achievement of this objective by:

- encouraging the protection and enhancement of social infrastructure and community facilities;
- encouraging boroughs to consult and address the needs of voluntary and community organisations when reviewing UDPs; and
- encouraging community engagement processes.
- In addition, the analysis under objectives 16 and 31 is relevant here and also that for objectives 3, 6, 11, 12, 13, 14, 25, 32.

# PART THREE

# 34. Conclusions

## 34.1 Summary of Approach

The purpose of the review of the baseline situation is to provide the basis for prediction and monitoring of environmental or other sustainability effects. Sufficient data about the current and likely state of the environment without further intervention should be collected to allow the plan's effects to be adequately predicted.

The appraisal objectives have been used as the basis for the analysis of the baseline. This approach is consistent with guidance from ODPM and helps to ensure that all factors are considered (economic, social and environmental).

For each objective a series of questions have been set to help scope out the relevant issues, consideration is then given to how the baseline will evolve without further intervention. In undertaking this work regard has been had to existing initiatives and policies that are already in place and are assumed to continue.

Finally each section concludes by considering how the Plan might contribute to the achievement of the objective. This is in recognition of the fact that the land use planning system cannot tackle issues in isolation and some issues fall outside of its zone of influence. These examples are provided to assist the reader.

## 34.2 Summary of Results

The results of the review of the baseline assessment are set out in **Table 34.1** below. The final column identifies problems and constraints that the Plan will need to address and/or which provide the context in which the Plan will be implemented. This is in line with the requirements of the SEA Directive and good practice from ODPM referred to in the main report. The review of the baseline helps provide a context for the remainder of the appraisal and demonstrates the scale of the issues and opportunities that London faces. Many of these issues cut across the sustainable development objectives. So for example poverty manifests itself through variations in health and life expectancy, access to the labour market and housing. Air quality relates to transport.

Many of the issues identified in the baseline report are long standing and policies and strategies are already in place to tackle them. These include efforts to achieve a step-change in the provision of social housing, efforts to tackle poverty and social exclusion and to achieve regeneration that is more in tune with local needs. Issues relating to the quality of life and quality of the built environment are also being addressed. Efforts to improve infrastructure, e.g.

through the provision of key transport proposals and increased public transport capacity are also already underway.

The review of the baseline and its evolution without further intervention (i.e. a continuation of existing policies and initiatives in the absence of the London Plan) demonstrates two key roles for the Plan. The first is the provision of a strategic context for intervention at the local level. The second is to provide the land use and spatial context for other initiatives, e.g. those identified through other Mayoral Strategies on waste, energy etc.

Each chapter of this report has identified a specific examples of how the Plan can contribute to the achievement of the appraisal objectives.

**Table 34.1 Summary of Baseline Report**

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| 1 To focus development at locations which are currently well served by public transport with spare existing capacity, walking or cycling, or at locations where improvements are planned to achieve increases in their modal share | Access to public transport is highest in Central London and metropolitan town centres<br><br>Cycling everyday is most common in Central London. Around 80% of London residents have not used a bike in the past year.<br><br>7% of daily trips are on foot . There are 6 exemplar walking routes in London | Key improvements to the public transport network are planned in the Thames Gateway, the Central Activities Zone, Opportunity Areas, Areas for Intensification and town centres<br><br>Increase in development taking place close to public transport interchanges, driven by policy at the national level<br><br>Delivery of better conditions for walkers through implementation of Mayoral Strategies<br><br>Projected increase in level of cycling by adults | No data on projected changes in the number of trips made by foot. |
| 2 To reduce car dependency by improving transport choice and thus increasing | Overall, 37% of daily trips are made by car/motorcycle. The car is the most common form | Increase in total number of cars as affluence increases<br><br>Increase in peak demand for | |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| the proportion of journeys made by public transport, by bicycle and by foot | of transport in Outer London<br><br>Most travel into London is by public transport<br><br>16% of daily trips are by Underground. It is used for longer trips, primarily through Central London.<br><br>15% of daily trips are by bus. The bus is the most common mode of public transport outside Central London<br><br>5% of daily trips are by National Rail. It is used primarily for travel from into Central London from beyond Greater London, particularly by commuters<br><br>Walking accounts for around 25% and cycling for 2% of all journeys | public transport (Underground 16%, National Rail 15%, bus services 15%)<br><br>50% increase in bus capacity by 2016 planned across London<br><br>Increase in vehicle traffic in Outer and Inner London (7.5 and 4.5 % respectively), no change anticipated in Central London | |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| 3 To encourage sustainable development that is compact and mixed-use as appropriate, with provision of key local services and amenity that will reduce the need to travel | London has a unique set of spatial characteristics: a low density and open city; distinctive local town centres with a powerful city centre; and significant differences between sub-regions of London | Boroughs start to look wider than their own boundaries in planning<br><br>Development of sub-regions is likely to provide the strategic growth pattern for London<br><br>Operation of sub-regional partnerships | No data on extent to which existing key local services are under threat in London |
| 4 To ensure that London makes more efficient use of natural resources and in particular, soil, mineral aggregates, water and energy | Soil: Greater London covers about 1613 $km^2$. Around 70% of London's land area is developed (i.e. urban). Around 2.4% is excellent or very good for agriculture; there are some unexploited opportunities on land with potential high value crop production<br><br>Aggregates: Total consumption of aggregates is around 9500 thousand tonnes per annum, around 75% sand and gravel and 25% crushed | Continued demand for primary non-renewable aggregates from sources outside London<br><br>Increased water demand<br><br>Increased consumption of non-renewable energy<br><br>Water levels in London's tributary rivers seriously affected by drier summers | London's energy and $CO_2$ emissions inventory only includes aviation energy consumed in landing and take-off cycles at airports inside Greater London. Total flight energy is excluded because assigning different components of flight energy consumption to points of departure, arrival, stopover and transfer is a complex problem. |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | rock. Most aggregates are imported from other regions. Over 50% of construction/ emolition waste is recycled.<br><br>Water: water consumption in London is above the average for England. Domestic consumption per household in the Thames Water area is 413 litres per day. In Central London there are opportunities to use groundwater to meet water demand<br><br>Energy: total and per capita energy consumption in London has increased significantly in the past 30 years. The biggest increases have been in gas consumption and aviation fuel.<br><br>London consumes around 155,000 gigawatt hours of energy per annum and produces around 40 million | | |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | tonnes $CO_2$. Domestic use is 45% of total energy consumption, commercial 34% and transport 21%.<br><br>Less than 1% of London's energy is from renewable sources, over 60% from municipal solid waste incineration. Gas is the biggest energy source. | | |
| 5 To protect and enhance existing biodiversity and natural habitats, and create new wildlife habitats | Reduced numbers of sparrow, blackbird and starling; increased numbers of wren, great tit and robin<br><br>London contains 33 SSSIs (site of national or international importance for wildlife)<br><br>10% of land in London comprises Sites of Metropolitan Importance for Nature Conservation (103 sites in total) | Some bird populations increasing and others decreasing<br><br>Protection of existing sites of wildlife importance with no significant reduction in such space | |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | 8% of land in London comprises Sites of Borough Importance for Nature Conservation (805 sites in total)<br><br>1% of land in London comprises Sites of Local Importance for Nature Conservation (484 sites in total)<br><br>The Thames is London's largest wildlife site and one of the cleanest metropolitan rivers in the world | | |
| 6 To maximise the benefits of regeneration schemes for local people | Central Government and the EU allocated £3.2 billion of public money to regeneration in London between 1995/96 and 2000/2001. The largest single source was the Single Regeneration fund | Establishment of borough-based Local Strategic Partnerships for local regeneration policy and delivery<br><br>Planned LDA involvement to ensure that regeneration benefits local people | Barriers to local people in London benefiting from regeneration are: complex funding system; lack of flexibility in funding structures; lack of local knowledge/skills; lack of innovation and risk-taking in regeneration schemes |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | Key factors for successful regeneration include community involvement, long term approaches and meeting local needs with local opportunities | A better planning process for cross-borough regeneration initiatives | Londoners most likely to be excluded are black and ethnic minority communities, disabled people, young people and senior citizens |
| 7 To actively promote new clean technologies, particularly potential growth sectors of the environmental economy, renewable energy production and pollution control | The global market for environmental goods and services is estimated at $335bn (comparable with the pharmaceutical sector) | Doubling of global environmental goods and services sector by 2010<br><br>Development and implementation of LDA initiatives to take forward the 'Green Economy': Development of high technology and labour intensive 'Jobs from Waste' schemes; promotion of energy efficiency and renewable energy production; promotion of green business management practices | The environmental economy is difficult to define, it cuts across the Standard Industrial Classification. |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| 8 Develop London's tourism industry in ways that are economically, socially and environmentally beneficial | An estimated 30 million tourists visit London every year. Tourism puts £15 billion a year into the economy, accounts for around 12% of London Gross Domestic Product and generates 8% of employment<br><br>56% of overseas visitors to the UK spend time in London<br><br>Most attractions are in the West End | GLA/LDA led funding and other initiatives should promote the tourism industry. It is planned to strengthen marketing, build an international conference centre, provide more affordable hotel accommodation in Outer London and develop skills and training<br><br>Establishment of Tourism Action Zones to stimulate and manage tourism | Management and mitigation of impacts on host communities |
| 9 To ensure that inward investment projects are environmentally, socially and economically sustainable | London is the UK's leading beneficiary of foreign direct investment<br><br>In 2002-2003, inward investment through the LDA's London First Centre secured 68 new projects and created around 1500 new London jobs | Continued promotion of London as a location for inward investment | No data on extent to which inward investment has historically contributed to sustainable development in London |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| 10 To improve river and canal ecological and amenity qualities, and to seek more sustainable uses thereof | 37% of London rivers have good or very good chemical water quality and 30% have good or very good biological water quality.<br><br>The water quality of London's rivers is variable. It is highest in the headwaters and lowest below sewage flow outflows.<br><br>70% of surveyed stretches of the Thames of an acceptable level of cleanliness (i.e. litter absent or predominately free of litter). The Thames foreshore is cleanest in the Royal Borough of Kensington and Chelsea and lowest in the Boroughs of Lewisham and Southwark<br><br>70% of the London canal network is of an acceptable level of cleanliness. The dirtiest areas are along the | Continued improvement in water quality due to improvements in sewage treatment works, river restoration schemes and tidy-up initiatives | Potential water resource deficit towards the end of the plan period<br><br>Sewage overflow into the Thames during times of high rainfall |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | western section of the Grand Union Canal (Boroughs of Ealing and Hillingdon) | | |
| 11 To protect, maintain, restore and enhance the quality of London's open spaces, to create new open space as appropriate, and to ensure that access to open space and the wider public realm is maintained | 22% of land within Greater London is classified as Green Belt and 9.6% as Metropolitan Open Land (MOL) | Land in the Green Belt and MOL continue to be protected from inappropriate development<br>Continued protection (through UDPs) of areas of open space of local importance | |
| 12 To improve the health of Londoners, reduce health inequalities and promote healthy living | General improvement in health since mid-1990s | Widening health gap between rich and poor (in terms of life expectancy and infant mortality)<br>An economic slowdown could have a negative affect on some determinants of health | Doubts about the value of some health indicators (e.g. GCSE performance) |
| 13 To reduce crime and the fear of crime | General decrease in crime for April 2002-March 2003 compared to the same period | Continued fall in crime rates due to higher police recruitment and spread of | |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | the previous year<br><br>Rates of recorded, notifiable offences in the City of London are above the average for England and Wales | crime prevention and monitoring technologies | |
| 14 To ensure that all Londoners have access to good quality affordable housing | Net loss of around 117,500 affordable homes since the introduction of Right to Buy<br><br>Estimated that London needs a total of 26,000 affordable homes a year | Proportion of new affordable housing only 20% of total dwelling provision<br><br>London needing an estimated 26,000 affordable homes a year | |
| 15 To ensure that where possible, new development occurs on derelict, vacant and underused previously developed land and buildings, and that land is remediated as appropriate | Approximately 3480 ha of brownfield land in London that may be available for redevelopment<br><br>The Boroughs in the East Thames corridor, Hounslow and Hillingdon have the most brownfield land | LDA target that, by 2004, brownfield land should be reclaimed at a rate of over 30 ha per annum | Site assembly<br><br>Hope value |
| 16 To encourage communication between | London is the most diverse city in the world; London's | Community Strategies will provide a vehicle for improving | The objective is highly qualitative. It is therefore |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| London's different communities, in order to improve understanding of differing needs and concerns. | children speak over 300 different languages and a third of the population is of black or minority ethnic origin<br><br>13% of London's population are aged over 65% and 3% over 80. This proportion is below the national average<br><br>London has the highest rates of teenage pregnancy, homelessness and drug dependency in the UK<br><br>46% of all taxpayers in London are women<br><br>1 in 10 Londoners have some form of disability | understanding of differing needs and concerns. | difficult to comment on the baseline and predict how it will change over time. |
| 17 To reduce emissions of greenhouse gases, and plan for further reductions, to meet or exceed national climate change targets. | Around 40 million tonnes of $CO_2$ and around 1.6 million tonnes of other greenhouse gases emitted each year in London. $CO_2$ emissions in | Climate change scenarios predict higher temperatures year round, wetter winters and stronger winds | Insufficient data to compile estimates of releases of individual air pollutants, other than $CO_2$ |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | London falling since 1990.<br><br>Other greenhouse gases contribute around 1.6 million tonnes $CO_2$ equivalent annually | Government target to reduce $CO_2$ emissions by 20% below 1990 levels by 2010. | |
| 18 To improve air quality. | Road transport is the major source of emissions of $NO_x$ and $PM_{10}$. Emissions from road transport dominate in London and are above national averages. Emissions from industry are below national averages<br><br>Buses make a significant contribution to road vehicle emissions. In Central London, buses cause 20% of $NO_x$ emissions and taxis cause 25% of $PM_{10}$ emissions<br><br>Air pollution levels have fallen over the past 10 years. | Reduction in total emissions from road transport due to cleaner vehicles, until 2015 when engine and fuel improvements are offset by continuing traffic growth<br><br>Between 2001 and 2011, 40% increase bus capacity<br><br>Between 2001 and 2011, 17% increase in Underground capacity<br><br>Between 2001 and 2011, 12% increase in National Rail capacity<br><br>Between 2001 and 2011, 15% reduction in traffic in Central | Too early to assess impact of congestion charge on air pollution |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | | London, reduction of rate of traffic growth to zero in Central London, and 3-5% reduction of rate of traffic growth in Outer London | |
| 19 To reduce the amount of waste requiring final disposal through waste minimisation, and to increase in order of priority, the proportion of waste reused, recycled and composted, and recovered. | 17 million tonnes of controlled waste per annum is produced in London, including 3.4 million tonnes from households (equivalent to half a tonne per person), 6.4 million tonnes from commercial and industrial waste and 6.0 million tonnes demolition waste<br><br>Local authorities collect 4.4 million tonnes municipal solid waste<br><br>72% of municipal waste goes to landfill, 20% is incinerated and 8% is recycled or composted. London is above the national average for incineration and below it for | Estimated continued growth in municipal waste of 2-4% per annum | Many factors which have an unknown impact on future waste arisings, making it difficult to predict changes to the baseline |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | landfill and recycling<br><br>The amount of waste increased by 16% between 1996/97 and 2000/01. Recycling levels have also increased | | |
| 20 To minimise ambient noise using best practice techniques. | Noise from road traffic, aircraft and neighbours and/or people nearby are the most significant sources of noise annoyance in London<br><br>Only slight changes in noise levels between 1990 and 2000 (excluding Inner London)<br><br>Around 20% of National Noise Attitude Survey respondents in London rate noise as 1 of top 5 environmental problems affecting them personally from a list of 12 | European Environmental Noise Directive and a range of actions to tackle ambient noise may reduce ambient noise levels | It is very difficult to measure the scale of the noise problem in London. There is no established methodology for measurement. Noise is a subjective issue. |
| 21 To substantially increase the proportion of energy | Awaiting data on current renewable energy production | Mayoral target to aim to supply at least 14% of London's | The Mayors Energy Strategy identifies a range of projects |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| both purchased and generated from renewable and sustainable resources. | in London | electricity from renewable energy by 2010 | across technologies that will contribute to meeting the 14% target |
| 22 To promote investment in and use of sustainable rail and water freight transport. | Port of London seagoing traffic accounts for around 54 million tonnes of freight movement in London, internal water transport around 2 million tonnes<br><br>Movement of freight by road dominates.<br><br>The Port of London is the biggest port in the UK | Increase in freight travel by rail. Government projection of 80% national increase over next 10 years, 16-17% of this increase could arise in London.<br><br>Potential for transport of recyclables by water and freight transport on Lea Navigation and Grand Union canals | Need to increase capacity on the rail network<br><br>Lot of freight goes through London, scope for by-passing London |
| 23 To create a climate for investment in London, with a modern employment structure based on a combination of indigenous growth and inward investment. | London's economy is primarily service based. The biggest employment sector is business services and creative industries represent the third largest sector | 600,000 rise in number of employees to 2016, including 400,000 in the finance and business services sector<br><br>Implementation of actions and flagship programmes to | 23% of the London population have low numeracy and literacy levels |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | The majority of businesses are small to medium sized enterprises. Large employers account for over a third of employment<br><br>Business start up and failure rates are higher than the national average<br><br>Commuters account for 21% of employment in London<br><br>London accounts for a fifth of national long term unemployment , unemployment is disproportionately high among black and minority ethnic communities | increase skills base | |
| 24 To promote a high quality of urban design in conjunction with sustainable construction principles and techniques. | See main text for definitions of good urban design and sustainable design and construction | Improvements in design quality and sustainable construction implementation due to the work of existing organisations, initiatives and | There is no single definition of what constitutes a high quality of urban design, particularly in the context of a city as complex as London. Extremely hard to |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | | policies but patchy in the absence of a strategic overview | measure |
| 25 To tackle poverty and social exclusion in areas of particular need. | 1 in 4 Londoners is affected by income poverty<br><br>41% of London's children are living in income poverty (after housing costs).<br><br>73% of Pakistani/Bangladeshi and 55% of black children are living in income poverty (after housing costs)<br><br>Income poverty is particularly concentrated in Inner London and, for children, working age adults and pensioners, is significantly higher than any other British region | Deprived communities in east and south London may benefit from committed schemes such as Thames Gateway and CrossRail. | Sheer scale of poverty in London |
| 26 To maintain and enhance the quality and integrity, and distinctiveness of the | London has a great wealth of fine historic buildings and spaces, including 3 World Heritage Sites and many | Continued application of existing policy relating to the protection of existing buildings and views and vistas, but not | |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| cityscape. | buildings of national importance | in a strategic context | |
| 27 To maintain and enhance the historic environment and cultural assets of London. | London has a great cultural wealth, including great institutions, historic parks and buildings, the River Thames, the skyline and religious and public buildings<br>3 World Heritage Sites<br>11 museums of designated national importance<br>5480 sports and recreation sites<br>860 conservation areas (25% of London's area)<br>More than a third of the UK's 1600 subsidised performing arts companies | Major institutions struggle to maintain their world-class programmes<br>London continues to miss out on hosting major international cultural and commercial events | |
| 28 To avoid development that will impact on areas at | Areas of London next to the Thames, especially in East London, are at risk from tidal | Fall in London defence standards as sea level rises | Unknown impacts of climate change make if harder to predict future changes to the |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| high risk from flooding. | flooding | Increase in incidence and severity of floods within Thames catchment<br><br>More flood protection necessary, for new developments such as Thames Gateway | baseline |
| 29 To increase tree cover as appropriate and ensure active and sustainable management of existing woodland. | London contains over 7000 ha of woodland (about 4.6 of total land area), one third of which is ancient woodland<br><br>Most woodland is located in the Outer boroughs, especially Bromley .<br><br>London's woodlands are relatively well protected under a number of designations | Woodland areas to remain stable or increase (providing current protection measures remain) | London's woodland habitat lacks appropriate management, particularly cessation of coppicing |
| 30 To improve the image of London as an exemplary sustainable city. | This is an over-arching-objective. The baseline information comprises the baseline information from all | This is an over-arching-objective. The information on evolution of the baseline comprises the information | Because this objective is cross-cutting, there is no real method for describing the baseline and changes to it |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | other objectives | from all other objectives | |
| 31 To actively challenge discrimination against all marginalised groups in a consistent and comprehensive way. | Housing: overcrowding is higher among minority ethnic groups. White households are least likely to have central heating. Overall, overcrowding in London is double that nationally<br><br>Health (limiting long-term illness): in the 30-64 age range, limiting long-term illness highest among Pakistanis and Bangladeshis. Overall, highest among white Londoners (due to older age profile)<br><br>Employment: women's hourly earnings are 76% of men's. London has the highest rate of unemployment for women in the UK. | Growth in the population of minority ethnic groups, especially in the Black African group, and decline in the size of the white population. | Overall, unemployment is over $2^1/_2$ higher for black and minority ethnic groups that for white people in London. Bangladeshis have the highest rates of unemployment (32%) Unemployment among white people 4.9%<br><br>At 10.9%, classified unemployment among disabled people is higher than for non-disabled people (6.15%). Disabled people earn over 19% less Nationally, 48% of disabled people are economically inactive.. |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | 44% of unemployed women are black or minority ethnic.<br><br>Chinese Londoners are highly qualified (40% of residents aged 23-26 qualified above A level standard). | | |
| 32 To ensure Londoners have access to opportunities for employment and occupation. | London has the second-lowest % of employment in the working-age population in the UK. This is due largely to low employment rates in Inner London (64.5%), compared to Outer London were employment is close to the national average of 74%.<br><br>There is enormous variation in unemployment rates between boroughs: Highest in Hackney (16%) and lowest in Bromley (4%)<br><br>Unemployment is lowest among white and Indian | The FRESA sets out a range of on-going initiatives that will be implemented in the absence of further intervention | High costs of living mean that access to certain types of lower paid employment is increasingly limited to those with lower living costs or who are not completely dependent on their own earnings.<br><br>People who have to support children and without qualifications for highly pair work are at risk of being priced out of the labour market |

| Objective | Summarised Baseline Information | Evolution of Baseline Without Further Intervention | Problems / Constraints |
|---|---|---|---|
| | Londoners. | | |
| 33 To respect people and value their contribution to society. | This is a cross-cutting objective. Refer in particular to baseline information for Objectives 16 and 31, also Objectives 3, 6, 11, 12, 13, 14, 25 and 32 | This is a cross-cutting objective. Refer in particular to baseline information for Objectives 16 and 31, also Objectives 3, 6, 11, 12, 13, 14, 25 and 32 | Because this objective is cross-cutting, there is no single way of describing the baseline and change to the baseline over time. |

# Annex A
# References

4 Pages

## References


Barton H., Davis G. and Guise R. (1995). Sustainable Settlements: A Guide for Planners, Designers and Developers. University of the West of England and the Local Government Management Board, Bristol/London.

BRE (2002a). The 1999/2000 National Survey of Attitudes to Environmental Noise. DEFRA, London.

BRE (2002b). The National Noise Incidence Study 2000/2001. DEFRA, London.

Dahlgren G. and Whitehead M. (1991). Policies and strategies to promote social equity in health. Institute of Futures Studies, Stockholm.

DETR (2002). The UK National Noise Attitude Survey 1999/2000. HMSO, London.

DETR (2000a). Our Towns and Cities: The Future - Delivering an Urban Renaissance (Urban White Paper). HMSO, London.

DETR (2000b). Building a Better Quality of Life: A Strategy for More Sustainable Construction. HMSO, London.

DETR (May 1999). A Better Quality of Life: A strategy for sustainable development in the UK. HMSO, London.

Department for Culture, Media and Sport (1999). Tomorrow's Tourism: A growth industry for the new Millennium. HMSO, London.

DfT (2002). Noise contours for Heathrow Airport 2002. HMSO, London.

DTI (2003). Energy White Paper: Our energy future - creating a low carbon economy. HMSO, London.

Electoral Commission (2003). Public opinion and the 2004 elections: A study of attitudes towards elections for the European Parliament and London's Mayor and Assembly. Electoral Commission, London.

Energy Technology Support Unit (2001). Development of a Renewable Energy Assessment and Targets for London. Government Office for London, London.

Environment Agency. Length of non-tidal rivers restored between 1 April 2001 and 31 March 2002 (*unpublished*).

Environment Agency. Planning for flood risk management in the Thames estuary (*unpublished*).

Fitzpatrick J. and Jacobson B. (2001). Mapping Health Inequalities Across London. London Health Observatory, London.

GLA (February 2004a). Green light to clean power: The Mayor's Energy Strategy.

GLA (February 2004b). The London Plan.

GLA (September 2003a). Consulting London: a framework for the core GLA, LDA, LFEPA, MPA and TfL.

GLA (September 2003b). Rethinking Rubbish in London: The Mayor's Municipal Waste Management Strategy.

GLA (July 2003). Breaking Down the Barriers: A report on targeting regeneration resources by the Economic and Social Development Committee.

GLA (June 2003). London Cultural Capital: The Mayor's draft Culture Strategy.

GLA (May 2003a). Equalities Framework 2002-4.

GLA (May 2003b). Green Capital: The Mayor's State of the Environment Report for London.

GLA (May 2003c). Market failure and the London housing market.

GLA (June 2003). Housing for a Compact City.

GLA (January 2003). Green light to clean power: The Mayor's Draft Energy Strategy.

GLA (2003a). Biodiversity database (*unpublished*).

GLA (2003b). Housing in London 2003.

GLA (November 2002). London Divided: Income inequality and poverty in the capital.

GLA (September 2002). Cleaning London's Air: The Mayor's Air Quality Strategy.

GLA (July 2002). Connecting with London's nature: The Mayor's Biodiversity Strategy.

GLA (June 2002). The Draft London Plan: Draft Spatial Development Strategy for Greater London.

GLA (March 2002a). Planning for London's Growth: Statistical basis for the Mayor's Spatial Development Strategy.

GLA (March 2002b). Rebuilding London's Future: Report of the London Assembly's Economic Development Committee.

GLA (July 2001). The Mayor's Transport Strategy.

LDA (2002). Visit London: The Mayor's Plan for Tourism in London.

LDA (2001). Success through diversity: London's Economic Development Strategy.

London Health Commission (2003). Health in London: Review of the London Health Strategy high level indicators, 2003 Update. GLA, London.

London Health Commission (2000). London Health Strategy. GLA, London.

London Housing Commission (2001). Homes for a World City: Report of the Mayor's Housing Commission. GLA, London

London Skills Commission (2002). London's Framework for Regional Employment and Skills Action. London Skills Commission, London.

MORI/GLA (2004). Annual London Survey 2003. GLA, London.

Newson S. and Noble D. (2003). Comparison of London wild bird population trends with those in the surrounding area. British Trust for Ornithology Research Report (311).

ODPM (2002) Land Use Change in England 2001, Section D.

ODPM (2003a). The Strategic Environmental Assessment Directive: Guidance for Planning Authorities: Practical guidance on applying European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment' to land use and spatial plans in England. HMSO, London.

ODPM (2003b). Communities Plan: Sustainable Communities - Building for the future. HMSO, London.

ODPM (2001). Annual report and aggregates monitoring 2001. HMSO, London.

ODPM (2000). Grade I and Grade II listed buildings at risk, 2000: Social Trends 31. HMSO, London.

ODPM (1998). Circular 06/98: Planning and Affordable Housing. HMSO, London.

Ofwat (2002). Security of supply, leakage and the efficient use of water: 2001-2002 report. Ofwat, Birmingham.

Rowley, A. (1998). Planning and Mixed-Use Development: What's the Problem? RICS Research, London.

Simmons, J. and Dodd, T. (2003). Home Office Statistical Bulletin: Crime in England and Wales 2002/2003. Home Office, London.

Thames21. Cleanliness Index of the Waterways of Greater London (*unpublished*).

Transport for London (2003). London Travel Report 2003. Transport for London, London.

Urban Task Force (1999).Towards an urban renaissance: Final Report of the Urban Task Force. HMSO, London.

# Annex B
# Acronyms and Abbreviations

2 Pages

## Acronyms and Abbreviations

| | |
|---|---|
| BME | black and minority ethnic |
| BRE | Building Research Establishment |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| DEFRA | Department of the Environment, Food and Rural Affairs |
| DETR | Department of the Environment, Transport and the Regions |
| DTI | Department of Trade and Industry |
| FRESA | Frameworks for Regional Employment and Skills Action |
| GLA | Greater London Authority |
| ILO | International Labour Organisation |
| ITGL | Invest in Thames Gateway London Ltd |
| LDA | London Development Agency |
| LFEPA | London Fire and Emergency Planning Authority |
| LSP | Local Strategic Partnership |
| LTS | London Transportation Studies |
| MOL | Metropolitan Open Land |
| MPA | Metropolitan Police Authority |
| $NO_x$ | nitrogen oxide |
| ODPM | Office of the Deputy Prime Minister |
| $PM_{10}$ | fine particles |
| PPG | Planning Policy Guidance |
| PV | photovoltaic |
| RPG | Regional Planning Guidance |
| SA | Sustainability Appraisal |
| SAC | Special Area of Conservation |
| SEA | Strategic Environment Assessment |
| SME | small and medium sized enterprise |
| $SO_2$ | sulphur dioxide |
| SRA | Strategic Rail Authority |
| TfL | Transport for London |
| UDP | Unitary Development Plan |