APPENDIX A

Transport Plan

www.southwark.gov.uk

This Transport Plan forms the vision for transport in the borough.

At the heart of the plan we focus on improving people's health, job opportunities and a sense of belonging. Southwark has convenient neighbourhood shops, schools and parks and we hope to build on this, improving the public realm to bring communities and people together, making journeys convenient, accessible, safe and as short as possible.

Southwark is ideally placed to access central London but with access to the Southbank and tourism centres it is equally important that people can access the unique experiences and history that Southwark has to offer.

Supporting our businesses is also important especially in these tough economic times. We will work with the local business community to understand what transport challenges they face and how we can work together to support one another.

Councillor Barrie Hargrove

Cabinet Member for Transport Environment and Recycling

However, transport can have a negative impact on our environment; including noise, air quality and vehicle emissions. There are many exciting and new ways that we can tackle this, such as providing a car club bay within five to ten minutes walk of all residents in the borough.

Southwark is a changing and growing borough and I am determined we support the employment and population growth expected here over the next 20 years. Improvements can already be seen at the Elephant and Castle, with the removal of the southern roundabout and reclaiming the space for people. This ambitious change has set the benchmark for our other major regeneration areas, changing places to the benefit of our communities.

Section 1: Executive summary

What is the Transport Plan?

The Transport Plan sets out how we will improve travel to, within and from the borough and contribute to the wider economic, social and environmental objectives of the council. The plan sets our vision for transport, our long term goals and transport objectives for the borough (up to 20 years), targets and outcomes to show how we are delivering the Transport Plan. The plan incorporates the requirements of Southwark's Local Implementation Plan 2 in helping to deliver the Mayor's Transport Strategy.

The Transport Plan guides transport priorities and projects and this plan details our three year programme of investment (2011/12 to 2013/14).

What are we trying to achieve

The plan identifies how we will work towards achieving a sustainable future for the borough. The policies, programmes and initiatives within this plan will help us improve the ease in which we travel in the borough, encourage sustainable and active travel as well as help us to manage environmental problems related to congestion, local air quality, reduce our impact on climate change and improve health, safety and accessibility.

The plan identifies how we will work towards achieving this through the following eight transport objectives, which are described below with key themes;

1. **Manage demand for travel and increase sustainable transport capacity (page 34)**

   Southwark recognises the need to balance demand as well as capacity for transport. Managing the demand for travel through land use planning and reducing demand for travel will relieve the pressure on the public transport system as well as the road network. However it needs to be recognised that population and employment growth will further increase demand on the transport network and we will work to achieve improved transport provision in the borough.

2. **Encourage sustainable travel choices (page 46)**

   With most journeys being less than five kilometres, a majority of Southwark's transport needs can be met by walking and cycling - the most sustainable modes of transport. We set out to make sure people are aware of all transport options and to build skills and confidence in sustainable modes of travel, through a programme of education, support, training and promotion.

3. **Ensure the transport system helps people to achieve their economic and social potential (page 51)**

   Southwark has good access to a variety of employment centres including within the borough, central London and Canary Wharf. Travelling in the morning and afternoon peak can often be congested and overcrowded creating a poor journey experience and can become a disincentive to travel.

   Good access to and investment in Southwark's own town centres will become increasingly important as they become destinations in their own right and we will work to ensure that they are accessible.

4. **Improve the health and wellbeing of all, by making the borough a better place (page 54)**

   The way people choose to travel can play an important role in leading a physically active and healthy lifestyle. Promoting active lifestyles is a key priority for the council.

   Local people use their streets more than anyone else and the council supports approaches to enable local communities to become involved in their streets to create places that people can enjoy.

5. **Ensure the transport network is safe and secure for all and improve perceptions of safety (page 58)**

   One of Southwark's top priorities is to make all its streets safe and convenient and encourage more people to go by foot or by bicycle. To succeed in this, we need to keep traffic speeds low and fulfil the ambition to be a 20mph borough. We will improve safety for all users of our roads.

6. **Improve travel opportunities and maximise independence for all (page 68)**

   Southwark's transport policies pay particular attention to the needs of people with reduced mobility such as people with disabilities, wheelchair users and people travelling with small children. We will provide key improvements to improve access to the public realm and public transport network.

7. **Ensure that the quality, efficiency and reliability of the highway network is maintained (page 72)**

   Ensuring our highway network is fit for purpose is one of the borough's greatest challenges and responsibilities. Southwark is committed to maintaining and improving the existing road network and making the best use of it including balancing the needs of different users, managing works, traffic and congestion.

8. **Reduce the impact of transport on the environment (page 83)**

   To improve the borough's air quality, we will encourage the take up of sustainable travel and reduced reliance on private vehicles. We will consult on introducing emission based parking permits and continue to support the take up of new technologies including lower emission vehicles and review our own fleet to help meet our carbon dioxide emission targets.

Delivering change

To deliver the transport plan we have developed a three-year improvement programme reviewing current trends and challenges, considering the goals and challenges of the MTS, SRTPs and our transport plan objectives. It includes our plan for physical improvements to our roads and public spaces as well as educational and promotional activities.

How we will measure our progress

Our performance monitoring plan will help both us and others assess whether our transport plan has delivered its objectives. To achieve this, we have set ten challenging, realistic but achievable targets.

We developed our proposed targets by examining the historical data available, impact or our interventions and initiatives. Our proposed targets are summarised in the following table.

Table 1, Transport Plan targets

Target/ Indicator
Excess wait times for high frequency bus services from 1.0 minute to 0.9 of a minute in 2013/14
Maintain the proportion of principal road length in poor condition at 11.1% by 2013/14
Reduce CO_2 emissions from road based transport from 227kt CO_2 in 2008 to 190kt CO_2 in 2013
Reduce traffic levels in Southwark by 3% by 2013
Increase the walking mode share in Southwark to a third (33%) by 2013
Increase the proportion of those cycling in Southwark from 3% to 4% by 2013/14
Reduce the number of all total casualties by 33% by 2020
Reduce the number of killed and seriously injured by 33% to 2020
Reduce the total number of slight casualties by 33% by 2020
Reduce all cyclist casualties by 44% by 2020

Section 2: Introduction to the transport plan

What is the Transport Plan?

The Transport Plan sets out how we will improve travel to, within and from the borough and contribute to the wider economic, social and environmental objectives of the council. The Transport Plan sets out our long term goals and transport objectives for the borough (up to 20 years), a three year programme of investment and the targets and outcomes to show how we are delivering the Transport Plan.

The Transport Plan, incorporating Southwark's Local implementation plan (Lip), is a statutory document, prepared under Section 145 of the Greater London Authority Act 1999. Southwark's Transport Plan responds to the revised Mayor's Transport Strategy (MTS), the Sub Regional Transport Plans (SRTPs), Southwark's Sustainable Community Strategy (SCS) and other relevant policies. Southwark's Transport Plan will replace the borough's first Local implementation plan (2006).

How the Transport Plan was put together

Southwark's Transport Plan has been heavily influenced by the goals and challenges contained within the borough's Sustainable Community Strategy, the Mayor's Transport Strategy and the Sub Regional Transport Plans for central and south London. Officers from across the council have helped to shape the content of the plan overseen by the Cabinet Member for Transport, Environment and Recycling and in close collaboration with TfL and our neighbouring authorities.

How consultation has helped develop the Transport Plan

The Transport Plan contains initiatives and proposals that will affect the community as a whole and it is imperative that those who live, work and study in Southwark were able to comment on and provide input into the document.

The consultation on the Transport Plan was held over an 11 week period, from the 22 December 2010 until the 8 March 2011. The consultation was undertaken to ensure that all sections of the community could participate in developing the plan. People were invited to comment on the Transport Plan via community groups, community councils, the council's website, electronic newsletters and social media networks (facebook and twitter) and via an online survey. In addition, the community had the opportunity to speak to officers directly through various community and stakeholder groups, local community councils and via two Transport Plan 'drop in' sessions.

The council received a total of 447 responses to the consultation, comprising of 402 completed surveys with the balance of comments from individuals, statutory stakeholders (including TfL, emergency services, neighbouring authorities) and key interest groups (including Sustrans, Livings Streets, Southwark Cyclists, English Heritage, the Freight Association and area groups and forums).

Feedback on the plan

The majority of all comments and responses have been positive. The community supported a number of initiatives in the plan including the prioritisation of improvements to town centres and as a result of this our delivery programme will prioritise investment in town centres. The community also supported parking for shops and local businesses over residential cars.

With regards to environmental issues, the majority of people who responded wished to see the council introduce parking permits based on CO_2, in order to encourage less polluting vehicles. Therefore we will consult on introducing CO_2 based parking permits to be introduced in 2013. In addition to this over half people surveyed would, or would consider, purchasing an electric vehicle.

When considering the condition of our roads nearly all respondents stated that they believed that street condition was important (pot holes etc) and nearly as many wished to play an active role in the design and management of their street. Our community streets programme will enable people to engage in how their streets are improved, furthermore the council is set to continue to allow the community to agree their local non principal road renewal programme.

Many supported public transport and nearly 90% of respondents wished to see buses given priority over general traffic on our roads. We will therefore continue to support the prioritisation of buses. Three quarters also supported the council's key ambition to become a 20mph borough.

A majority of responses supported the council continuing to provide free cyclist training and saw this as a way to get more people cycling. We will continue to provide free cyclist training to those that live, work, study and visit the borough.

Addressing the needs of our borough and its community

To ensure that the Transport Plan has been prepared in an inclusive, reasonable and measured way the council has undertaken an Equality Analysis, Health Impact Assessment (HIA) and a Strategic Environmental Assessment (SEA).

These assessments ensure that the proposals put forward within the document do not result in harm to the environment, discrimination or unfair treatment of equality groups and promote the health and well being of the community. These documents have been prepared in conjunction with our key stakeholders.

Strategic Environmental Assessment (SEA)

The SEA was undertaken to identify the potential cumulative environmental effects of the different Transport Plan options that were considered. It also details possible mitigation measures than can be carried out alongside the final Transport Plan to alleviate or avoid any adverse environmental effects arising from the implementation of the Plan. The SEA also helps to identify any potential opportunities to enhance the environment through the Transport Plan.

The following statutory environmental bodies were formally consulted on the scope and in the preparation of the Environmental Report of the SEA of the Transport Plan for Southwark:

- Natural England
- The Environment Agency
- English Heritage

Where appropriate, comments received helped to modify and shape the SEA and the Transport Plan. For example as a result of comments by English Heritage an additional policy (4.5: Enhance quality of life through the built and natural environment) was created to ensure that historic environment is sufficiently conserved and enhanced when implementing the Transport Plan.

Equality Analysis

Southwark has a duty under race, disability and gender legislation to carry out an Equality Analysis of the Transport Plan. This should identify whether or not and to what extent the Transport Plan has an impact, either positive or negative, on a particular equality target group, and/or whether any adverse impacts identified have been appropriately mitigated.

The analysis considered that the transport plan would broadly have a positive impact on reducing discrimination, promoting equality of opportunity and promoting good relations between different groups. Particular issues to address were identified as cultural / language barriers, provision for older people and those with disabilities and personal safety generally. When developing the delivery plan particular attention has been paid to these issues.

The plan contains a comprehensive monitoring framework that should promptly identify any shortcomings or negative outcomes for particular groups.

Health Impact Assessment (HIA)

A Health Impact Assessment (HIA) has also been carried out. This considers the impacts, positive and negative, of the transport plan on health. It also contains a clear analysis of whether the health of the whole borough's population or just certain sections of the population will be affected.

What the Transport Plan contains

Section 2: Southwark today provides the context for transport and travel in Southwark.

Section 3: Challenges and opportunities for Southwark details our key challenges and sets out the relevant policy context to which we must respond. This section also details our major regeneration plans and our aspirations for major transport improvement schemes.

Section 4: Our strategy for Southwark sets out the objectives of our transport plan.

Section 5: The policies provide the response to our transport challenges and details the initiatives to deliver the transport objectives.

Section 6: Delivering change presents a costed and funded **Delivery Plan,** covering the period 2011 to 2014 (extending to 2015 for the proposed Major Schemes); and

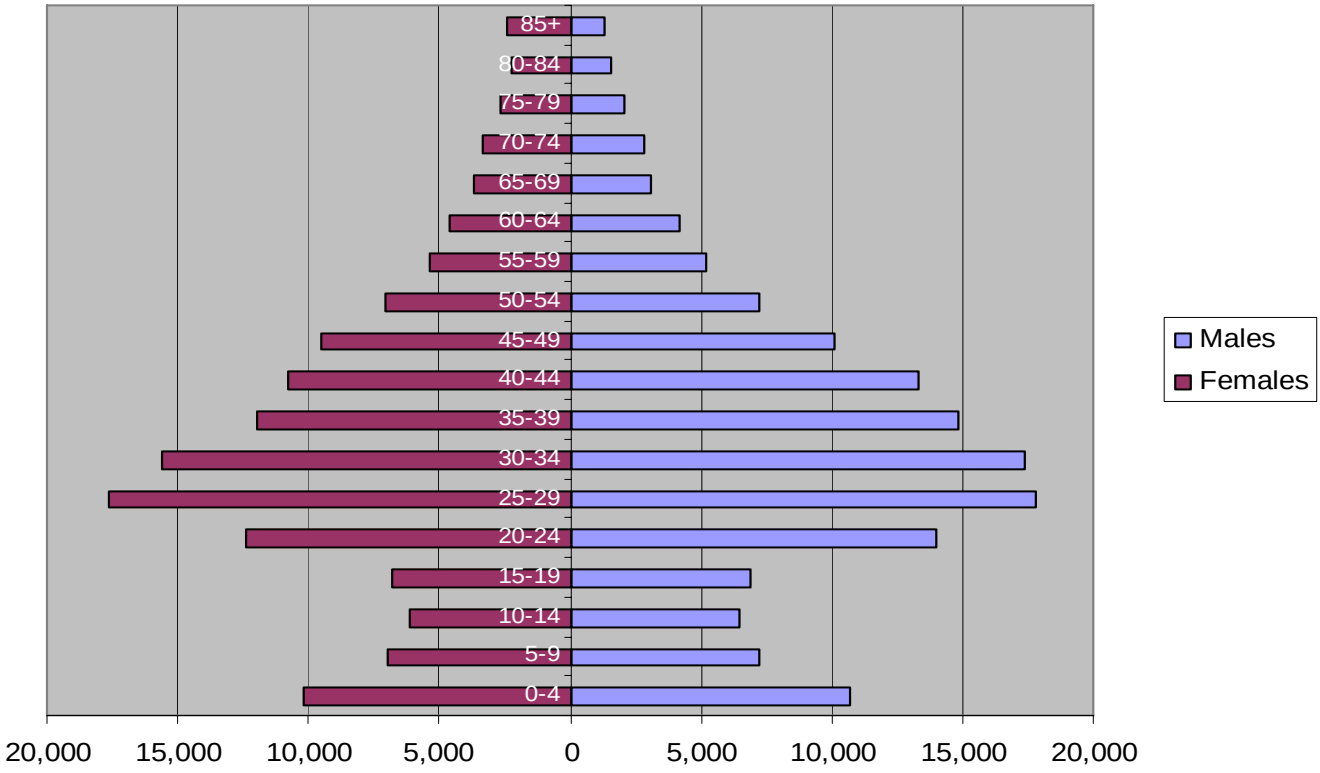
Section 7: Performance monitoring identifies the targets and indicators which will be used to monitor progress against our objectives.

Section 2: Southwark today

Our community

Around 286,000 people live in Southwark, including a rise of well over 50,000 since 1981. With an increasing number of new residents in their 20s and 30s household sizes are getting smaller. The number of households has risen since the last Census from 114,700 in 2001 to 122,026 in 2008[1]. Southwark's population profile is characterised by a high percentage of working age residents, 66% compared to 60% in London.

Figure 1, Southwark population age and gender breakdown



Source: ONS; mid year estimates 2009

Southwark is an ethnically diverse borough, with some 35.2% of people identifying themselves as belonging to minority (non white) ethnic groups.[2] The African communities have been increasing as the largest ethnic minority in the borough, comprising approximately 12.2% of all residents, almost double the number of people with a Caribbean background. The south Asian and Chinese communities only make up about 11% of Southwark's population which is similar to the inner London average.

53,500 (20%) of people living in Southwark said they had health problems and 25% of households contain at least one member with a health problem. Overall health of residents is improving, in the last ten years, major health indicators such as mortality and life expectancy have improved markedly, but there are significant inequalities in these indicators for people living in different parts of Southwark.

1 Office for National Statistics, Neighbourhood statistics 2008

2 Office of National Statistics

Of the borough's population, 21% are children and young people (0 to 19 years of age)[3] compared to 24% in London. A major risk factor for long term health of local children is the continuing trend of unhealthy weight. In 2010, the School Measuring Programme found that 39.8% of reception class children and 40.2% of year six children were overweight or obese. This is amongst the highest in England. Southwark also has a high rate of child obesity with 15% of children in reception year recorded as obese in 2006/07 compared with 10% nationally. Furthermore, the percentage of obese school children in Reception year (ages four to five) is estimated to be 13.2%.

Table 2, Number of schools and pupils in Southwark 2011

Total number of:	Schools	Pupils
Nursery	5	605
Primary	71	22,781
Secondary	6	3,428
Specialist Schools	7	434

Source: The School Census January 2011

In 2008, Southwark had 45% or 88,200 local residents qualified to degree level. This is above the London average of 39%. There are also significant numbers of local residents qualified at NVQ Level 3+ and indeed 57% of the working age population of Southwark were qualified to this level in 2008 compared to 52% in London. At the other end of the educational spectrum, 13% of the resident population have no qualifications, slightly above the regional average of 12%.

There were around 157,900 economically active residents in Southwark in 2009, a common measure of the available labour supply of an area. The proportion of the working age population who were economically active stood at 76%, marginally above Inner London (75%) and London (75%) and below the national average (77%). There were 12,800 unemployed people in Southwark in 2009; an unemployment rate of 9% of the economically active population. This rate was above the Inner London and London averages (both 8%). However, over the previous five years Southwark has managed to reduce the gap with the London average. In line with the rest of the country unemployment is increasing as a result of recession and an increasingly competitive job market. There are barriers to employment for certain groups of workless individuals including ethnic minorities, people with health and disability needs, and women, particularly if they are lone parents.

Overall crime levels in Southwark have been decreasing for the last six years. This trend continued in 2010/11 with a 2% reduction in total crime compared to 2009/10. During 2010/11, Southwark made good percentage reductions against some of its crime indicators, including most serious violence (down 34%), gun crime (down 7%) and assault with injury (down 2%). However, despite some significant successes, Southwark, like many other London boroughs, did see an increase in some crime types in 2010/11: serious acquisitive crime (offences such as robbery, residential burglary and vehicle crime) increased by 10%, knife crime by 10% and youth violence by 5%.

[3] Office of National Statistics 2007

Although the actual crime rate on public transport has declined in recent years, it is perceived risk that has the most direct impact on people's choices. The perceived rate may also be affected by experiences such as vandalism and graffiti, or the need to use poorly lit or lonely passageways, which may add to a sense of unease or vulnerability. Over the last year residents have told us they find Southwark a safer place to live. Almost all residents (98%) say they feel safe walking in their area alone in the daytime. After dark, almost three quarters say they feel safe, an increase from 60% the previous year.

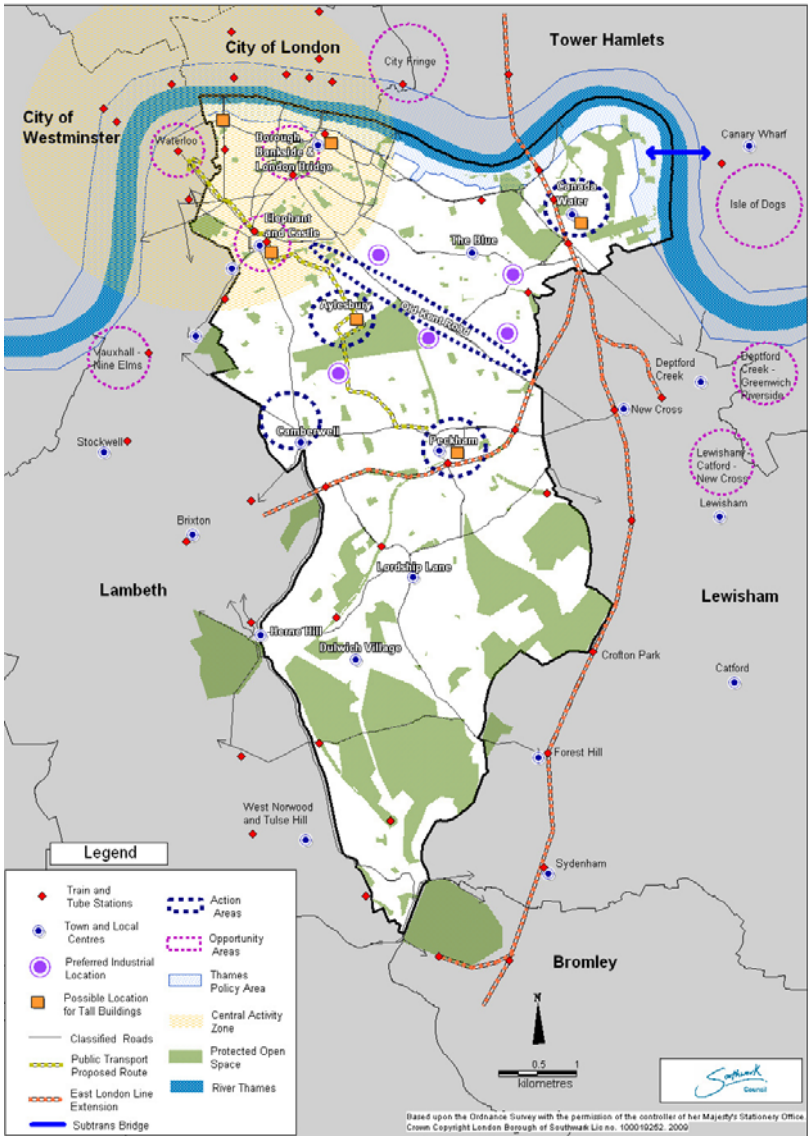
Southwark is investing in its own CCTV resources as well as agreeing a camera sharing protocol with TfL which has significantly increased our CCTV capabilities.

Southwark as a place

Southwark is fast becoming one of London's most dynamic boroughs with 40% of the borough currently under regeneration. One of the greatest challenges we face is supporting people and providing the infrastructure to support this change. It is imperative that we consider the needs of those who live, work, visit or study in Southwark currently and those that will do so in the future.

The following figure shows our key regeneration areas as identified by the local development framework, each of these is described in greater detail below.

Figure 3, Key regeneration areas - core strategy



Bankside, Borough and London Bridge

Bankside, Borough and London Bridge contain major buildings and tourist attractions bringing thousands of people into the area each day. The area is the main employment and business area in Southwark, generating 63% of its wealth. The riverside area also supports key tourist destinations including the Tate Modern and the Globe theatre.

Some of the biggest changes are around London Bridge station and the northern end of Blackfriars Road where there are large areas for redevelopment and a number of high profile schemes planned such as The Shard/London Bridge Tower.

These new developments will be supported by the redevelopment of London Bridge station, which will be redeveloped as part of the Thameslink programme providing an extra 50% capacity at peak times. Presently at London Bridge pedestrian congestion extends beyond the station itself and onto surrounding streets and this will need to be managed as the station capacity increases.

Aside from major development sites, there are other areas across Borough, Bankside and London Bridge area which will benefit from more gradual change and where improvements to transport can be considered as they are identified.

Elephant and Castle

Major redevelopment is taking place at the Elephant and Castle, one of the borough's key transport interchanges. We are working to maximise the accessibility of the transport network, including the mainline and underground stations and the public realm.

The council is seeking to secure an improved underground station as part of the transformation of the shopping centre. Developer contributions will be needed for this project which will be undertaken in partnership with London Underground. Technical work will be undertaken to ensure that improvements are affordable and as cost effective as possible and a phased approach will be taken to allow development to continue in the area.

New junction layout

Public realm improvements have commenced with the removal of the southern roundabout providing better access to the whole centre, surface level pedestrian facilities and an uplift in the local streetscape. Discussions are taking place with the GLA, TfL and developers to agree the most viable scheme for the northern roundabout and a new ticket hall that meets all of the aspirations for the regeneration of the area.

An Elephant and Castle opportunity area framework/supplementary planning document is being prepared to refresh Southwark's existing guidance for the area (the 2004 Development Framework supplementary planning guidance and 2008 Enterprise Quarter and Walworth Road supplementary

planning documents). The new supplementary planning document(SPD)/opportunity area framework (OAF) will cover the entire opportunity area and is expected to be adopted in early 2012.

Aylesbury

The Aylesbury estate area will see the replacement of the existing 2,700 properties with around 4,200 homes complemented by two rebuilt schools.

At the core of the regeneration area a community spine will be created. The community spine will provide a quality public transport route along Thurlow Street to Wells Way in Burgess Park. This route will be retained and safeguarded in the new development to enable it to accommodate quality, high capacity transport services, whether by bus, guided bus or tram.

The council recognises the need to increase the accessibility of public transport in the area and also access to destinations north of the river from Elephant and Castle. As the regeneration progresses, the council with TfL will improve the frequency of the existing bus services which run through the action area's core as well as new routes to Peckham and Elephant and Castle and beyond.

The community spine will support a network of new roads, cycle paths and footpaths and a range of social and community spaces such as health centres and childcare facilities. The new layout of the area (including roads, footways, cycleways, building locations) will provide good links to the Elephant and Castle, the Walworth Road and the Old Kent Road and will also provide direct links to important destinations such as new community facilities, public transport stops and shops.

Aylesbury area action plan was adopted in January 2010 and is currently being implemented.

Canada Water

The Rotherhithe peninsula was transformed during the 1980s and 1990s and the area dramatically changed with the introduction of the Jubilee line in 1998. The next phase of regeneration is now underway. The out of town style shopping and entertainment facilities supported by substantial amounts of surface car parking provide an opportunity to create a new town centre for Rotherhithe and for Southwark. A new public library has been built and is supported by a new public space which links the tube and bus stations and the shopping precinct.

Improvements are currently being made to increase the capacity of the Jubilee line, while the East London line is being connected into London's Overground network.

Currently access to public transport is high around the town centre, but drops off quickly, particularly towards Surrey Docks ward. The area's location on the Thames provides excellent access to the walking and cycling networks of the Thames path and river boat services. The area action plan sets out the council's ambition for improving local walking and cycling links.

Lower Road which runs north south through the area is a strategic road linking south east London with central and east London. This road suffers congestion through out the day and in particular at peak times as people seek access to the Rotherhithe tunnel. It is proposed to reintroduce two-way traffic movement on Lower Road to help make traffic movement more efficient and improve the environment around the gyratory

The Canada Water area action plan is due to be adopted in early 2012.

Camberwell

Camberwell will be subject to change over the coming years including the redevelopment of the Maudsley Hospital, the rebuilding of the Salvation Army facilities, the expansion of Kings College Hospital, the growing popularity of the Camberwell College of the Arts, major improvements to Denmark Hill Station, and the redevelopment of the local leisure facilities.

The town centre sits on a strategic crossroad providing key north/south and east/west links. The area supports a large number of bus services and interchange between services. Currently the town centre is dominated by vehicular movement. Pedestrian access is poor due to the volume of traffic moving through the town centre.

Southwark and Lambeth Councils in partnership with TfL are to invest in the Camberwell town centre to uplift the area and create a new space for London. The scheme, while focussing on transport issues, will provide the opportunity for coordination across a range of regeneration activities and initiatives in the area.

Peckham and Nunhead

Peckham is a thriving town centre that meets the needs of a diverse population, with successful local businesses and exciting new spaces. The regeneration will focus on a core area around the town centre where major development is proposed and a wider area where improvements will be of a smaller scale.

The area has very good rail links to central London but these services tend to be very crowded in peak times. Car ownership levels tend to be low within the area and the local bus services are well used.

The area currently supports a number of one way systems which direct traffic around the town centre, which is very crowded as pedestrians, delivery vehicles, cars and buses all have to share a very narrow street. This can make it unpleasant to be in the town centre and disrupts bus services. The council is currently developing a transport model to review the current one way systems and to facilitate improved delivery, loading and bus services to the town centre area.

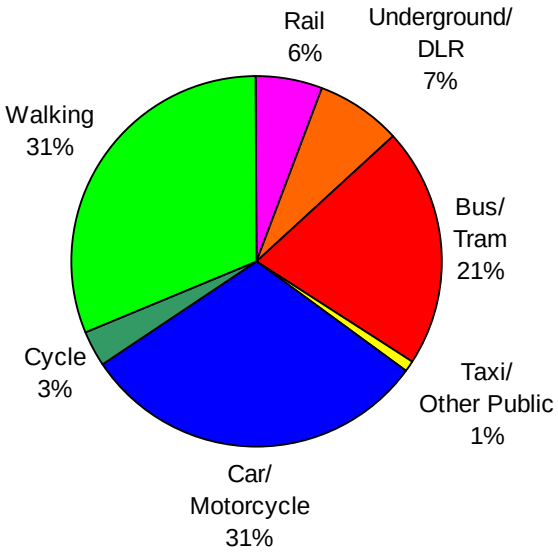
The council is currently preparing and area action plan for the Peckham and Nunhead area which is due to be adopted in 2013.

Section 3: Challenges and opportunities

Current travel patterns in Southwark

People need to travel as part of their daily lives and according to the London Travel Demand Survey (LTDS) over 530,000 trips are made per day within the borough. There are many reasons to travel; to work, to school, for shopping or to visit family and friends.

Figure 4, Mode of travel originating in Southwark



Source: London Travel Demand Survey 2010

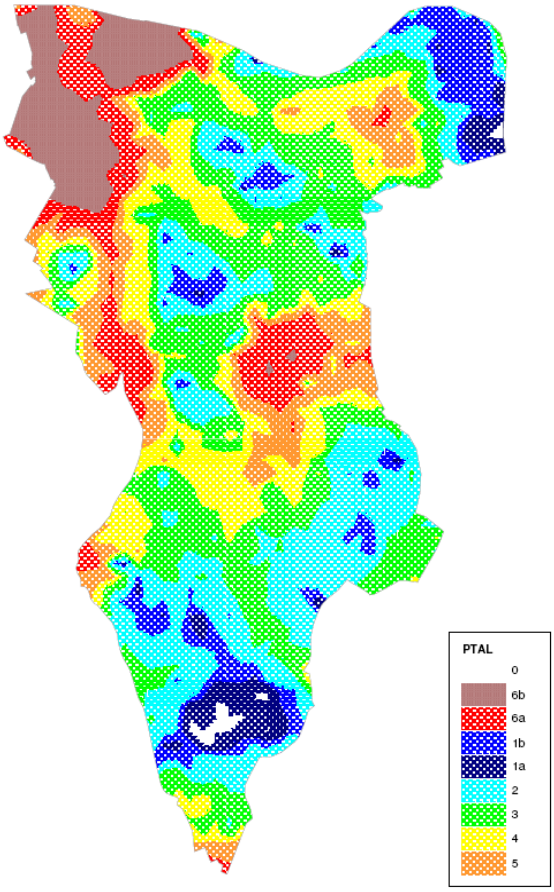
Walking along with using car/motorcycle are the most common methods of travel. Many of those car trips will also have a walking element. For most, walking is something that is done everyday, whether it be walking to the train or bus stop, walking to school or work or to local shops. According to the LTDS for 31.5% of all trips originating in Southwark a majority of the trips are made on foot.

The rise in the number of people cycling in London has already been significant, with a 117% increase on London's major roads since 2000. Cycling is recorded at the main mode of travel for 2.9% of trips originating in Southwark this means that 15,399 trips per day are made by bike. Approximately 40% of households in London have access to a bike, but as one in five of these are unused[4] there is still potential for more people to cycle. With approximately 50% of residents living within 10km of work, Southwark is an ideal location for people to cycle to work.

4 Cycling revolution London 2010, Mayor of London

Public transport accounts for 34% of travel. The coverage and accessibility of public transport varies significantly across the borough and this is shown on the following map, which details the relative Public Transport Accessibility Levels (PTALs)[5] for Southwark. The lower levels of accessibility are centred on Burgess Park and surrounding residential area, the wider area of Rotherhithe and the green spaces in Dulwich.

Figure 5, Public transport accessibility levels



Travelling by bus accounts for 28% of all journeys made by Southwark residents, which is the second highest level in London for reliance on bus services.

There are 60 bus services (including eleven 24hour services), and 15 night bus services that run through Southwark. These are run on behalf of TfL by eleven different companies, on 42km of bus lanes and serve 650 bus stops.

Buses in Southwark are generally reliable, and rarely suffer significant delays. In 2007/08, there was on average a 86.1% chance of waiting fewer than ten minutes for a bus and a 0.9% chance of waiting between 20 and 30 minutes. The average excess waiting time (EWT) for high frequency bus routes was 1.0 minutes[6] in the fourth quarter of 2009/10. This was a fall of 0.1 minutes on 2008/2009 for the same period.

5 PTALs are a method of assessment utilised by TfL and the majority of London boroughs to produce a consistent Londonwide public transport access mapping facility. PTALs assess the level of service, walk and wait times to produce indices of accessibility to the public transport network.

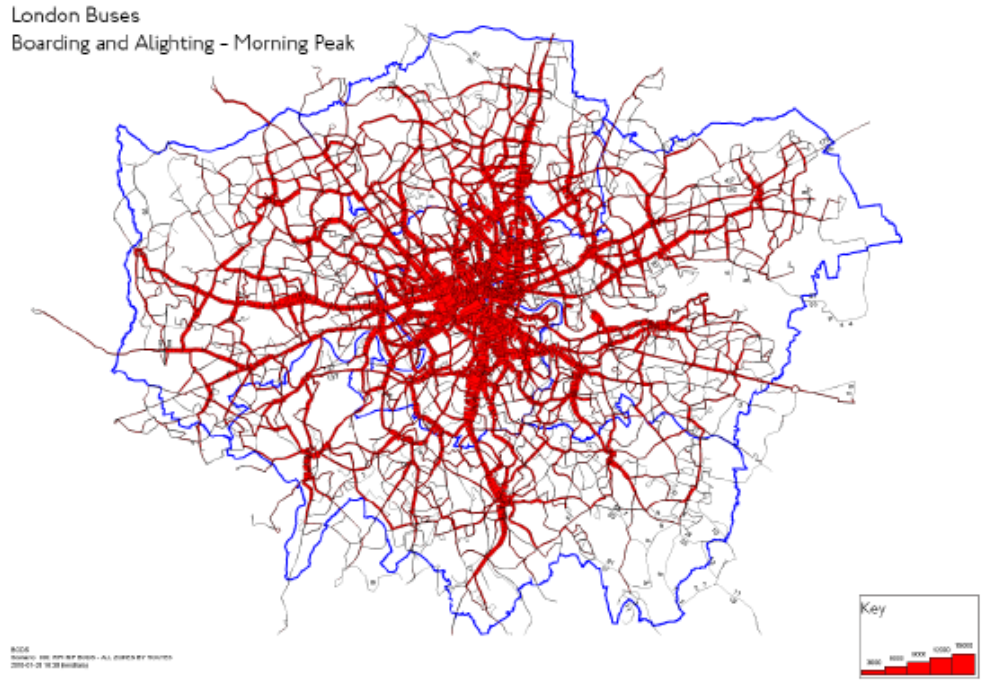
6 2007/08 report for Southwark, second quarter

Excess wait time (EWT) is the waiting time experienced by passengers over and above what might be expected of a service that is always on time and high frequency bus services are defined as those with five or more buses per hour.

For low frequency services (four or fewer buses per hour), 73.2% were found to be on time. This is 1.6% lower than the same period in the previous year. 17.8% of low frequency buses ran between five and 15 minutes late.

The following figure shows demand across London in terms of passenger flow during the morning peak on the bus network. This shows the concentration of radial services into central London which reflects the higher level of activity in those areas.

Figure 6, Bus boarding and alighting in AM peak



Source: TfL

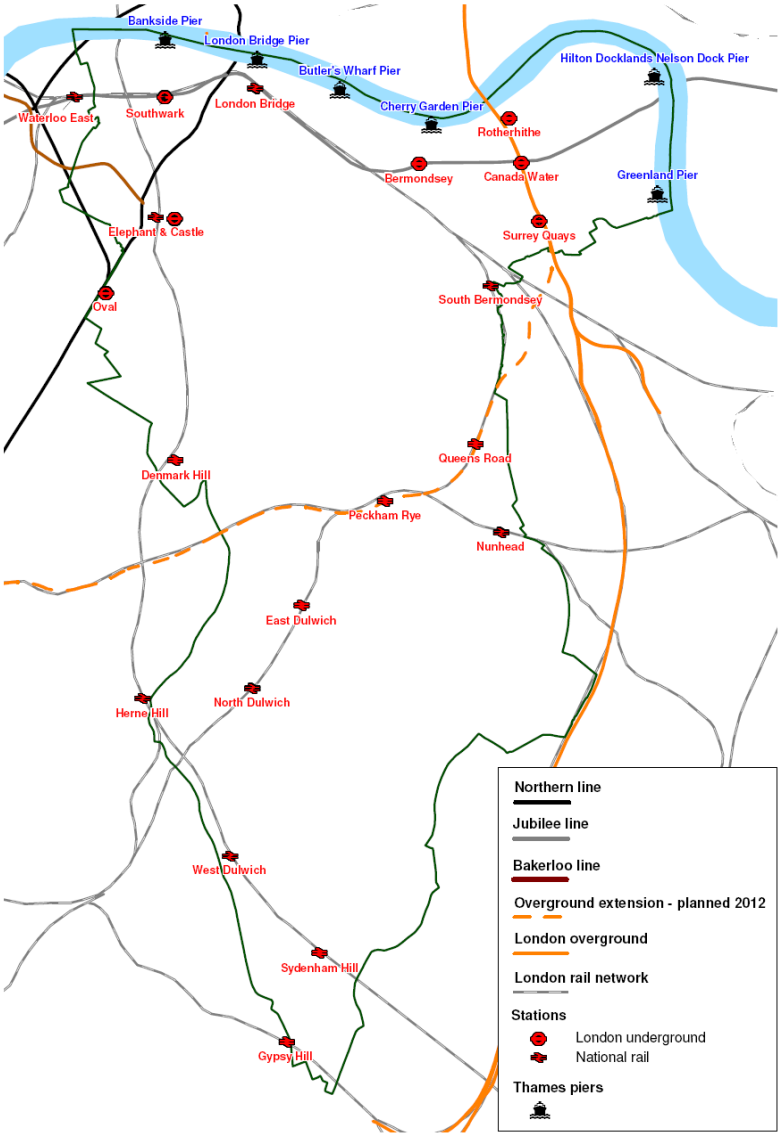
In support of the bus network, the borough hosts three different underground lines; the Northern, Bakerloo and Jubilee services. The underground network is concentrated in the north of the borough where there are nine underground stations; London Bridge, Borough, Elephant and Castle, Kennington, Surrey Quays, Rotherhithe, Southwark, Bermondsey and Canada Water

The Jubilee line is capable of carrying 39,000 passengers per hour. The line carries over 405,000 passengers each weekday and requires 47 trains to meet demand for both AM and PM peaks. The Southwark section of the Jubilee line (westbound) experiences significant crowding during the morning peak period. The line is classed as ‘crowded’ between Canada Water and Bermondsey, rising to ‘very crowed’ beyond Bermondsey.

The Northern line carries over 660,000 passengers each weekday and requires 91 trains to meet demand for both AM and PM peaks. The Mayor plans to increase the 2006 capacity of the Northern line by 20% by 2012. Similar to the Jubilee line the Southwark section of the Northern line (northbound) experiences severe crowding during the morning peak.

The Bakerloo line carries 302,869 passengers each weekday and the Mayor plans to increase the 2006 capacity of the Bakerloo line by 38% by 2020. The Southwark section of the Bakerloo line (northbound) is classed as 'uncrowded' during the AM peak.

Figure 7, Public transport network in Southwark



The borough also supports eleven surface rail stations: London Bridge, Elephant and Castle, South Bermondsey, Queens Road Peckham, Peckham Rye, Denmark Hill, Nunhead, East Dulwich, North Dulwich, West Dulwich and Sydenham Hill. Whilst the number of stations may give the impression of a comprehensive network, there are two major gaps in the network within Southwark. One is centred on the Burgess Park area (from Camberwell to Bermondsey) and the other is centred on the area between Peckham Rye Park and Dulwich Park.

The extension to the East London Line/London Overground between Clapham Junction and Dalston Junction via Surrey Quays will complete the orbital railway providing a variety of new travel opportunities for Southwark residents and visitors alike.

Difficulty in travel by rail in Southwark is characterised by the following elements:

- London Bridge and Waterloo stations are located on the edge of the Central Business District, with the majority of passengers needing to interchange between other services on arrival. This in turn leads to significant congestion around the stations.
- The capacities of the routes on the approach to London, particularly into London Bridge Station, are limited by physical constraints. This capacity constraint leads to peak time crowding on services into London termini as well as those services travelling through the borough. This can make it difficult and unpleasant for people wishing to use these services.
- The complex nature of the network means that the frequency of services is constrained and hourly timetables are not feasible.
- Lack of step free access at some stations and interchanges.

Interchanges facilitate transition between modes and/or different journey legs on one mode and have an impact on the convenience and reliability of public transport journeys. Peckham Rye is identified as a strategic interchange and as having the potential to relieve interchange capacity pressures at London's rail termini and reduce travel times.

Historically, there have been fewer river crossings in the east of London than in the west due to the width of the river and the extent of shipping activity east of Tower Bridge. The lack of crossing points has been reflected by the limited interaction between the residential and employment populations on either side of the river.

As the economy of east London has changed developments such as Canary Wharf, the exhibition centre at Custom House and the concert arena on the Greenwich peninsula have increased demand for travel across the river. Opportunities for travelling to these new destinations from some areas south of the river such as North Bexley and parts of Greenwich are restricted. This growth, coupled with fare changes and frequency improvements, has meant that the river service has experienced a surge in demand with passenger numbers more than doubling between 2007 and 2008. In 2009, pay as you go technology was introduced on certain river services, including 10% off single tickets with Oyster pay as you go.

Motorised travel

There are approximately 415km of roads in Southwark, 23km of which form part of the Transport for London Road Network. These roads are not managed or maintained directly by Southwark Council but fall under the control of Transport for London (TfL).

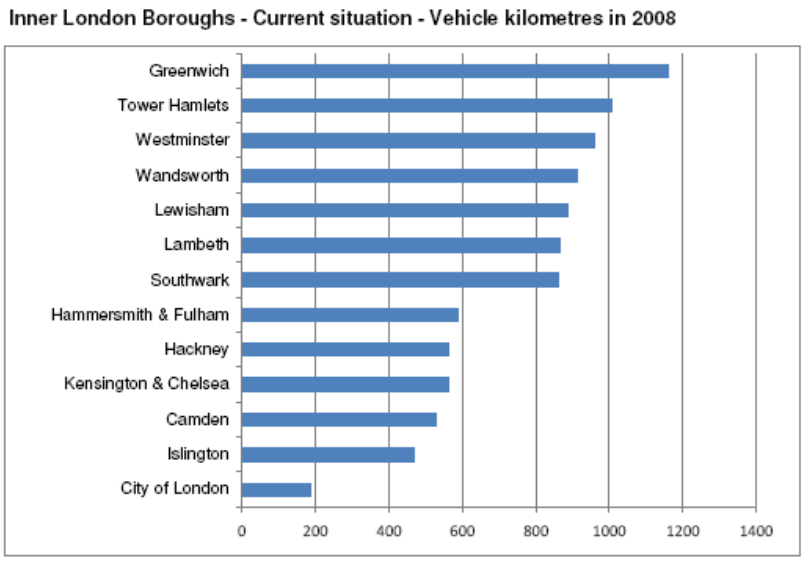
The 2001 census indicated that 49.1% of households (around 62,733 households) in Southwark had access to a car. This was similar to the inner London average at the time, but significantly lower than the Greater London average of 63.5%. This level of access was an increase of 165% since the 1981 census. However, recent private car ownership data has indicated a reduction in this number with current private car ownership at 54,885 which is itself a reduction on last year's figure of 55,966.[7]

[7] It should be noted that census is self reporting (people may say they have access to a car when the vehicle may be registered at an address outside the borough or unregistered) while car ownership data is for those vehicles registered in Southwark.

The overall picture for Southwark is one of gradually falling levels of motor vehicle traffic entering and exiting the borough since the early 1990s[8], even before the effects of the economic downturn in 2008 are taken into account. Traffic is estimated to have fallen further since 2008 due to the effects of the recession[9]. Nonetheless, many parts of the road network in Southwark suffer from significant congestion, with particular problems on the approaches to the Rotherhithe Tunnel and Tower Bridge as well as on Peckham High Street and Old Kent Road.

Southwark supports significant volumes of traffic as shown on the following figure.

Figure 8, Comparison of mean annual average daily traffic flows, by borough level for 2008



Source: DfT National Road Traffic Survey 2008

London's projected growth will add extra pressure on the highway network and the limited capacity in central London.

Contrary to the general traffic trend, in recent years there have been increases in the number of goods vehicles on our streets.[10] The main driver for further growth in freight traffic is the significant population increase which is forecast over the next ten years and the associated increase in demand for goods and essential materials, particularly the construction industry. Increased population and employment brings with it the requirement for additional food and services to support this activity.

Road freight currently makes up 89% of London's freight by tonnage and is expected to grow to meet the demand from London and the rest of the country. The number of vans (Light Goods Vehicles, LGVs) is forecast to grow by 30% between 2008 and 2031 with some growth in Heavy Goods Vehicles (HGV) activity.

[8] Road Network Performance and Research Traffic Note 3, October 2009 (Transport for London)

9 Department for Transport

10 Road Network Performance and Research Traffic Note 3, October 2009 (Transport for London)

Transforming transport provision

The council and its partners should be working to provide the transport services to meet the growing demand previously identified. The council seeks major improvement to transport capacity as below, however due to their complexity these projects have a long life and some of those detailed will extend beyond that of the plan.

Table 3, Major transport projects that impact on travel in Southwark

Bakerloo line extension	The Bakerloo line has an important role in London's transport geography, serving the strategic northwest southeast corridor and for Southwark providing an important element of the regeneration of Elephant & Castle. The council supports the Mayor's aspiration to extend the Bakerloo line to the south. This extension would increase travel opportunities to key areas in the borough and free up National Rail capacity at London Bridge for other service improvements.
Cross River Tram	The council has been a long term supporter of the Cross River Tram and was dismayed when funding for the further development of the tram was withdrawn. The tram represented a significant future transport improvement within the borough providing easy access to public transport in areas with potential for major regeneration but which are also currently bereft of public transport opportunities. The tram was intended to be a street running tram operating through the centre of London providing a core route between Euston and Waterloo with branches to Camden & Kings Cross in the north and Brixton and Peckham in the south.
DLR extension to bank	This scheme would relieve pressure at London Bridge station and on the Jubilee line towards Canary Wharf by providing an alternative for passengers, using the expanded Thameslink service, to reach Docklands.
London Overground	The extended London Overground has brought vast improvements to transport provision and connects in Southwark. Station improvements have also taken place at Rotherhithe and Surrey Quays station. The line will be further extended to run from Clapham Junction to Dalston Junction via Surrey Quays, providing a quick link between southwest and southeast London. This will link operate trains every 15 minutes and travel from Dalston Junction to Clapham Junction in 40 minutes. The council enthusiastically supports the development of a station at Surrey Canal Road. It has been calculated that a new station would be used by 1.3 million passengers a year and would provide a vital new transport connection.

Thames Bridge	The council supports the long term aspiration to build a new river crossing for pedestrians and cyclists, connecting Rotherhithe with Canary Wharf. The proposed bridge would offer a relatively direct route between the residential centre of Rotherhithe with the employment centre of Canary Wharf and provide an alternative and sustainable travel choice for those making this cross river journey.
Brixton High Level	The council supports the development of a new station at Brixton High Level. This would improve access to interchange opportunities between the London overground (currently under construction) and the LUL Victoria Line.

Policy context and issues

This section sets out the local and regional policy framework for the Transport Plan. It will also detail the borough policies and how the Transport Plan links to the wider objectives of the council.

Regional policy

London Plan

The Mayor's draft replacement *London Plan* (2009) sets out an integrated economic, environmental, transport and social framework for the development of the capital over the next 20 to 25 years. The new London Plan sets out to

- Meet the needs of a growing population with policy on new homes, including affordable housing, housing design and quality, and social infrastructure, which will promote diverse, happy and safe local communities.
- Support an increase in London's development and employment with policy on: outer London, inner and central London; finding the best locations for development and regeneration, and protecting town centres; encouraging a connected economy; and improving job opportunities for everyone, so that London maintains its success and competitiveness.
- Improve the environment and tackle climate change by: reducing CO_2 emissions and heat loss from new developments; increasing renewable energy; managing flood risk, ensuring water supply and quality; improving sewerage systems; improving London's recycling performance and waste management; and protecting our open spaces making London a green and more pleasant place to live and visit.
- Ensure that London's transport is easy, safe and convenient for everyone and encourage cycling, walking and electric vehicles.

Mayor's Transport Strategy 2010

In May 2010 the Mayor published his Transport Strategy (MTS). It sets out the vision for transport in the Capital over the next 20 years. It prepares for London's predicted growth of 1.3 million more people and 0.75 million more jobs by 2031 and supports sustainable growth across central, inner and outer London.

Table 4, MTS goals, challenges and outcomes

Goals	Challenges	Outcomes
Support economic development and population growth	Supporting sustainable population and employment growth	• Balancing capacity and demand for travel through increasing public transport capacity and / or reducing the need to travel
	Improving transport connectivity	• Improving employees' access to jobs • Improving access to commercial markets for freight movements and business travel, supporting the needs of business to grow
	Delivering an efficient and effective transport system for people and goods	• Smoothing traffic flow (managing road congestion and improving journey time reliability) • Improving public transport reliability • Reducing operating costs • Bringing and maintaining all assets to a state of good repair • Enhancing the use of the Thames for people and goods
Enhance the quality of life for all Londoners	Improving journey experience	• Improving public transport customer satisfaction • Improving road user satisfaction • Reducing public transport crowding
	Enhancing the built and natural environment	• Enhancing streetscapes, improving the perception of the urban realm and developing 'better streets' initiatives • Protecting and enhancing the natural environment
	Improving air quality	• Reducing air pollutant emissions from ground-based transport, contributing to EU air quality targets
	Improving noise impacts	• Improving perceptions and reducing impacts of noise
	Improve health impacts	• Facilitating an increase in walking and cycling
Improve the safety and security of all Londoners	Reducing crime, fear of crime and antisocial behaviour	• Reducing crime rates (and improving perceptions of personal safety and security)
	Improving road safety	• Reducing the number of road traffic casualties
	Improving public transport safety	• Reducing casualties on public transport networks
Improve transport opportunities for all Londoners	Improving accessibility	• Improving the physical accessibility of the transport system • Improving access to services
	Supporting wider regeneration and tackling deprivation	• Supporting wider regeneration

Reduce transport's contribution to climate change and improve its resilience	Reducing CO2 emissions	• Reducing CO_2 emissions from ground-based transport, contributing to a London-wide 60 per-cent reduction by 2025
	Adapting to climate change	• Maintaining the reliability of transport networks
Support delivery of the London 2012 Olympic and Paralympics Games and its legacy	Developing and implementing a viable and sustainable legacy for the 2012 Games	• Supporting regeneration and convergence of social and economic outcomes between the five Olympic boroughs and the rest of London • Physical transport legacy • Behavioural transport legacy

The MTS high profile outputs are:

Cycle superhighway schemes
Cycle parking
Electric vehicle charging points
Better streets
Cleaner local authority fleets
Street trees

Sub regional transport plans

In order to develop an integrated approach to sub regional transport development and land use planning, London has been split in to five sub regions (central, north, south, east and west).

Sub Regional Transport Plans (SRTPs) translate the MTS to the sub-regional level identifying sub-regional characteristics, challenges, opportunities and priorities and forms a bridge between Mayoral policies and those of the encompassed boroughs.

The boundaries between the different sub-regions are intended to be flexible and “fuzzy” as transport challenges do not stop at borough or sub-regional boundaries. Southwark is included in both the Central and South sub region as shown in the following figure.

Figure 9, Sub regional boundaries

Each of the sub regions has prepared a transport plan setting the regional ambitions, challenges and objectives. Those of the central and south sub-region are contained in the following table. The relationship between the central and south sub regional plans and Southwark's Transport Plan is dynamic in nature as the sub regional transport plans are live documents and will be updated on a regular basis.

Table 5, Sub regional plan challenges

Central London challenges	Reducing public transport crowding and improving reliability
	Supporting growth and regeneration
	Ensuring sufficient capacity at rail stations and efficient onward distribution
	Improving the urban realm and promoting walking
	Managing the different demands on streets
	Improving air quality
South London challenges	Reducing public transport crowding
	Improve access and movement to, from and within key places
	Improve connectivity to, from and within the sub-region
	Manage highway congestion and make efficient use of the road network

Southwark policy

Southwark 2016: Sustainable Communities Strategy (2006)

The Sustainable Community Strategy (SCS) was produced by the Southwark Alliance. The alliance membership includes representatives from Southwark Council, Borough Police, JobcentrePlus, Head Teachers' Executive, and Chief Executive of Southwark PCT. This is the primary document for the council and the ambitions contained within it should be reflected in all council policies and plans.

Table 6, Sustainable Community Strategy priorities and indicators

SCS objectives	SCS priorities	Indicators
Improving individual life chances	Achieve economic wellbeing Achieve their educational potential Be healthy Stay safe Enjoy cultural and leisure opportunities Value diversity and be active citizens	Reduction in rates of childhood obesity Reduction in deaths from specific diseases Reduction in deaths and serious injuries from road accidents Increased use of leisure facilities & parks Increased take up sports physical & activity
Making the borough a better place for people	Localities of mixed communities Sustainable use of resources More and better homes A vibrant economy A liveable public realm	Increase the satisfaction of residents with Southwark as a place to live and reduce the differences between areas Reduction in CO_2 emissions year on year Measurable improvement in air quality Reduction in projected traffic Improvement in public transport links into and across the borough by 2016 Improvement in the quality rating for streets and estates To be a 20mph borough
Delivering quality public services	Accessible and integrated Customer focused Efficient and modern	Increase in public satisfaction with services for the borough and for each community council area

Comprehensive Area Assessment process (National Indicator Set)

The Audit Commission's Comprehensive Area Assessment (CAA) was the method for monitoring the performance of councils and their local partners in England. As well as examining progress against the targets, the Audit Commission also assesses our performance against national indicators. These include the following transport related indicators:

- NI 47 Reduce the number of people killed or seriously injured in road accidents by 50%
- NI 48 Reduce the number of children killed or seriously injured in road accidents by 60%
- NI 55 Reduce the percentage of children in reception year that are obese to 13.4%
- NI 186 Reduce CO2 emissions in the local authority area by 10% against thebaseline year
- L27c Increase the percentage of residents satisfied with the quality of repairs to roads and pavements to 35.5% by 2011

Currently, the CAA has been abolished and other national performance and inspection processes are under review. Discussions are taking place between the government, the Local Government Association (LGA) and other representative bodies about the future approach to inspection.

Southwark reports on our performance and service improvement processes through the borough's corporate plan and will work with local and regional partners to ensure that we are able to provide citizens and members with appropriate information about our performance and continue to improve services that matter most for our residents.

Local Development Framework, core strategy 2011

Southwark is made up of lots of different communities, identities and localities. The Local Development Framework (LDF) is the folder of spatial plans that set unique visions for Southwark's neighbourhoods, with strategies, policies and delivery plans to develop and protect these areas and to further strengthen them as the successful places that we want them to be. The Core Strategy sets out an overarching strategy for Southwark. Day-to-day development management policies are set out in a number of Southwark Plan (2007) policies which have been saved until 2013.

The core strategy promotes growth in key areas, particularly in the core action areas and the opportunity areas as shown in figure 3. These are:

- The central activities zone
- Elephant and Castle opportunity area
- Bankside, Borough and London Bridge opportunity area
- Peckham and Nunhead action area
- Canada Water action area
- Aylesbury action area
- Camberwell action area
- Old Kent Road action area

Alongside the Core Strategy, Southwark is preparing a number of area-based policies and guidance. These include area action plans (AAPs) for the Aylesbury estate (2010), Canada Water and Peckham and Nunhead as well as SPDs for Elephant and Castle, Camberwell and Dulwich. These area based documents provide detailed guidance and policy for managing growth and set out priorities for the delivery of the transport infrastructure which is necessary to support growth. These documents explain the role of section 106 planning obligations in securing infrastructure and complement the council's borough-wide guidance in the section 106 Planning Contributions SPD (2007). In 2012 the council will start preparing a community infrastructure levy (CIL). The CIL will seek to identify needed infrastructure and will set a mandatory charge to contribute to its delivery. The CIL is due to be adopted in 2013.

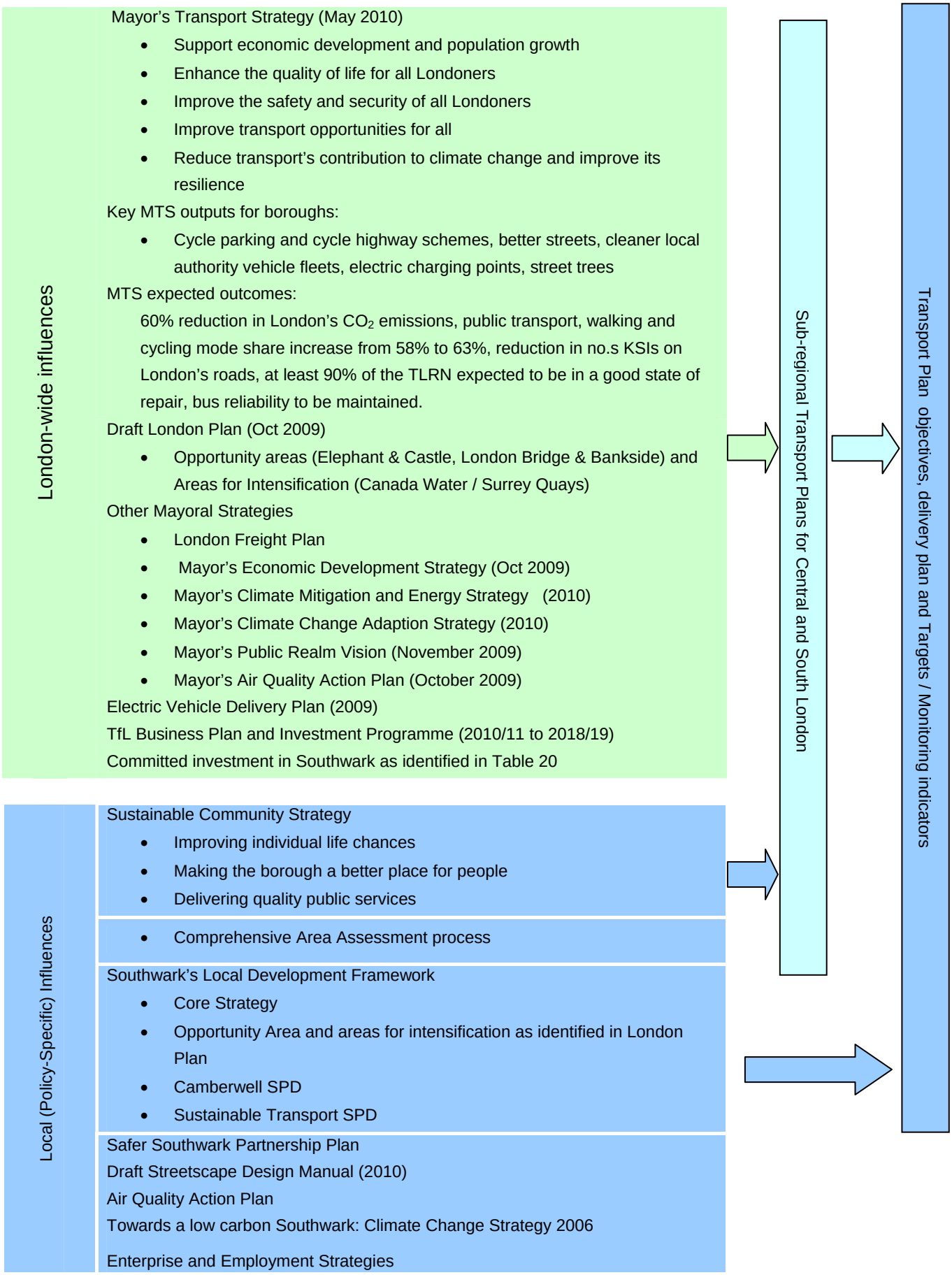
The council also has a Sustainable Transport SPD which provides guidance on how transport impacts associated with development should be addressed in preparing planning applications. These documents are used along with the London Plan to make planning decisions.

The transport plan and evidence are fully integrated into the Local Development Framework providing the detail that has supported preparation of these documents and approaches. We also review these annually to make sure that they are working effectively to regenerate and protect Southwark.

More information can be found at www.southwark.gov.uk/localdevelopmentframework

The following figure shows how both the regional and the council's own policies have informed the development of the Transport Plan.

Figure 10, Policy influences



Section 4: Our strategy for Southwark

Transport is for people and about supporting our community. It is a topic which many people feel passionately about, just ask the average commuter about their journey to work, or how the winter weather affects their trip and the importance of the need to travel becomes apparent.

We have recognised this important role and seek to make travel within the borough as convenient, pleasant, and as safe as it can be. The transport network is supported by a number of stakeholders, including public transport operators, the police, neighbouring authorities and TfL.

TfL, as the Mayor of London's transport body, sets the context for how travel and transport in London is developed and for managing the busier roads. The borough in preparing its Transport Plan has considered how delivering our own transport plan will support the delivery of the regional plans and policies; this analysis is show in the following table.

Table 7, Summary of goals and challenges for TfL and Southwark

MTS goals	MTS challenges	Southwark challenges
Support economic development and population growth	Supporting sustainable population and employment growth	Through land use planning and transport planning tools manage demand for travel. Support the locating of developments in areas of high public transport accessibility. To ensure transport infrastructure provides sufficient capacity to support growth areas.
	Improving transport connectivity	Improve access to key locations by sustainable and active modes of travel.
	Delivering an efficient and effective transport system for people and goods	To reduce congestion, manage delays and improve journey time reliability for all modes of travel.
Enhance the quality of life for all Londoners	Improving journey experience	To ensure that the transport system and environment is efficient, convenient and attractive, in order to improve user satisfaction whilst also encouraging a shift towards more sustainable modes of travel.
	Enhancing the built and natural environment	To maximise the contribution the built and natural environment can make to improving quality of life and addressing health inequalities through encouraging active lives incorporating active travel.
	Improving air quality	To reduce transport related air pollution through reducing overall levels of private motor traffic on our streets.
	Improving noise impacts	To reduce the noise impacts of road traffic.
	Improve health impacts	Encourage sustainable travel choices, ensuring people have the skills, confidence and infrastructure

		to support active travel and maintain active lives.
Improve the safety and security of all Londoners	Reducing crime, fear of crime and antisocial behaviour	To ensure a safe and secure transport environment, particularly at key transport interchanges and improve perceptions of safety in our public spaces.
	Improving road safety	Improve road safety, through reducing vehicular speeds, reducing conflict between road users and promoting improved road user behaviour.
	Improving public transport safety	Improve safety on public transport and at transport interchanges.
Improve transport opportunities for all Londoners	Improving accessibility	Improve access to key locations and maximise access to the public transport network for all.
	Supporting wider regeneration and tackling deprivation	When considering regeneration ensure that sustainable and active travel is incorporated as early as possible.
Reduce transport's contribution to climate change and improve its resilience	Reducing CO_2 emissions	Reduce vehicular traffic in the borough.
	Adapting to climate change	To ensure the transport system adapts, improving its resilience to climate change.
Support delivery of the London 2012 Olympic and Paralympics Games and its legacy	Developing and implementing a viable and sustainable legacy for the 2012 Games	To ensure long term benefits for borough's residents through supporting the 2012 Games and its legacy.

By considering the transport aims derived from Southwark policies alongside national transport and regional policy, a set of transport objectives for Southwark has been developed to be delivered over the life of the plan to 2031. Our transport objectives have been informed by, and are consistent with the wider policy context at national, London, sub regional and local level. In developing this plan we have considered a number of policies. We have been particularly mindful of the borough's SCS, its objectives and indicators which are detailed in the previous section as well as policies described in appendix A.

Our eight transport objectives to be delivered in the life of this plan are

- Manage demand for travel and increase sustainable transport capacity
- Encourage sustainable travel choices
- Ensure the transport system helps people to achieve their economic and social potential
- Improve the health and wellbeing of all by making the borough a better place
- Ensure the transport network is safe and secure for all and improve perceptions of safety
- Improve travel opportunities and maximise independence for all
- Ensure that the quality, efficiency and reliability of the highway network is maintained
- Reduce the impact of transport on the environment

Table 8, Southwark's transport objectives

Southwark transport objectives	SCS			MTS						Central sub-regional challenges						South sub-regional challenges			
	Improving individual life chances	Making the borough a better place for people	Delivering quality public services	Support economic development and	Enhance the quality of life for all Londoners	Improve the safety and security of all Londoners	Improve transport opportunities for all	Reduce transport's contribution to climate	Support delivery of the London 2012 Olympic and	Reducing public transport crowding and improving	Supporting growth and regeneration	Ensuring sufficient capacity at rail stations and efficient	Improving the urban realm and promoting walking	Managing the different demands on streets	Improving air quality	Reducing public transport crowding	Improve access and movement to, from and within kev places	Improve connectivity to, from and within the sub-region	Manage highway congestion and make efficient use of the road
Manage demand for travel and increase sustainable transport capacity		✓		✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	
Encourage sustainable travel choices	✓	✓			✓		✓	✓		✓	✓		✓	✓		✓		✓	✓
Ensure the transport system helps people to achieve their economic and social potential		✓	✓	✓			✓				✓						✓	✓	
Improve the health and wellbeing of all by making the borough a better place	✓				✓		✓				✓		✓	✓	✓		✓	✓	
Ensure the transport network is safe and secure for all and improve perceptions of safety	✓	✓	✓			✓							✓						✓
Improve travel opportunities and maximise independence for all		✓	✓		✓		✓						✓	✓			✓	✓	
Ensure that the quality, efficiency and reliability of the highway network is maintained			✓		✓	✓	✓		✓	✓				✓	✓				✓
Reduce the impact of transport on the environment	✓	✓			✓			✓			✓		✓		✓	✓			✓

Targets

As part of the Transport Plan we have prepared a performance monitoring plan, including targets for five mandatory indicators; mode share, bus service reliability, asset condition, road traffic casualties and CO_2 emissions. In addition we are proposing a number of local indicators with associated targets to reflect our key transport priorities.

In setting our targets we have sought to make them both ambitious and realistic given the indicative levels of funding available. Trajectories have been set for each target with annual milestones set so that an assessment of progress can be made on a regular basis.

Section 5: The policies

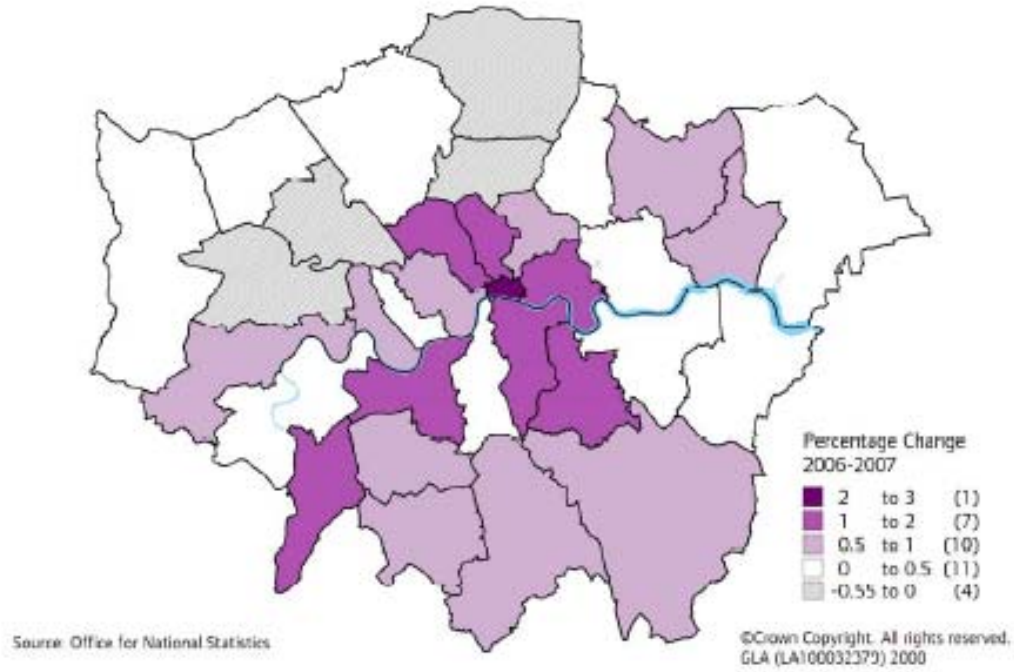
This chapter details the specific transport issues and challenges in Southwark and sets out a series of actions that the borough proposes to take forward over the life of this plan. These actions will help to achieve the council's vision as set out in Southwark 2016 and the objectives as set out in the MTS.

Objective 1: Manage demand for travel and increase sustainable transport capacity

Southwark recognises the need to balance demand as well as capacity for transport. Managing the demand for travel will relieve the pressure on the public transport system as well as the road network. However it needs to be recognised that population and employment growth will further increase demand on the transport network.

The borough's local development framework (LDF) core strategy states that 24,450 new homes will be provided between 2011 and 2026. The core strategy proposes to increase the number of people working in Southwark by around 15% from 165,800 to 190,800 between 2009 and 2026. This employment growth will be mainly within the Borough and Bankside and London Bridge area. With continued growth in the number of residents and employment, it is evident that the transport network will continue to face pressures which are already among the most intense in London. This is reflected in the Central sub regional transport plan that states there is likely to be a 25 per cent increase in demand on public transport during the peak periods by 2031.

Figure 11, Population percentage increase between 2006 and 2007 for London boroughs



By managing the demand for travel and increasing sustainable transport capacity in Southwark we will be working towards the Mayor of London's Transport Strategy goals to support economic development and population growth, enhance the quality of life for Londoners and reduce transport's contribution to climate change and improve its resilience. In delivering this objective we will also be working to support the delivery of the London 2012 Olympic and Paralympics Games and its legacy.

Policy 1.1 - Pursue overall traffic reduction.

We support the vision that current levels of private motor vehicular traffic in Southwark should be reduced further, even in the context of significant forecast population growth. The council's land use policies determine that the location of development, throughout the borough, must be appropriate to the size and trip generating characteristics of the development. This involves locating development in sites with high public transport accessibility as well as ensuring there is sufficient public transport capacity. The borough also supports mixed use development, locating homes near retail and community uses thereby reducing the need to travel.

Policy 1.2 - Require car free development in areas of good access to public transport, that are located in a controlled parking zone.

Surveys show that the public ranks much of Southwark ranks for ease of access to key services for those without a car and this is something to build on[11]. However, the coverage and accessibility of public transport varies significantly across the borough as measured through Public Transport Accessibility Levels (PTALs). PTALs assess service frequency, walk and wait times to produce indices of accessibility to the public transport network. PTALs are a useful guide and have the advantage of being an industry recognised tool and in use across London. PTALs for the borough are shown in figure 5.

Major developments generating a significant number of trips should be located near transport nodes and therefore also be in areas with a high PTAL. Whilst development should be provided in locations with high levels of public transport accessibility there should also be sufficient capacity on those services to meet the demand of the development. We will consider capacity issues in assessing new developments and seek contributions toward public transport improvements where needed.

In addition, parking provision should reflect levels of public transport accessibility so we will ensure that in areas which are not suitable to be completely car free, will have a low car parking provision.

Initiatives to support this include:

- Supporting development in areas with high public transport accessibility as well as car free development
- Management of parking, including controlled parking zones (CPZs)
- Management of off street car parks
- Introduction of car clubs

11 **The 2010 NHT Network Public Satisfaction survey which identifies what the public think about issues such as accessibility, public transport, walking and cycling, congestion, road safety and highway maintenance/ enforcement. This was the first year that the council has taken part in this survey.**

Elephant and Castle

The redevelopment proposed for the whole Elephant and Castle opportunity area will have an impact on the Bakerloo line and Northern line underground services, both on the trains and on the ticket halls, as well as on bus services. There may be opportunities to improve access to the rail station and to provide additional capacity for the Northern line ticket hall.

Smarter travel initiatives will be introduced to help manage demand as development proceeds to try to ensure that public transport capacity is not exceeded. This will include encouraging more people to make trips on foot and by bike. By understanding the potential for more people to walk and cycle, this will enable a funding package to be put together for infrastructure improvements.

Maximum standards for car parking within new developments are set within the sustainable transport SPD. Development should aim to limit the car parking provided and should justify the amount sought.

Policy 1.3 - Lobby TfL and other public transport providers to improve service levels and access to public transport.

Although Southwark ranks highly for ease of access to key services there are significant gaps in the rail network in Southwark. Underground services are confined to the north of the borough and many people therefore rely on mainline rail services. In order to support population and economic growth we believe that new rail infrastructure will be required, as well as improved service levels on the existing network.

We strongly support the capacity increases on the Jubilee, Northern and Bakerloo lines as well as the Thameslink programme and completion of the Overground network and will lobby for the continued improvement to transport capacity in the borough. To support these services it is equally important that our rail stations have sufficient capacity to cope with passenger demand.

Bus services are generally well utilised in the borough; this is particularly the case in areas of limited rail access where some bus services are crowded and capacity on these routes also needs to be increased.

Many journeys are likely to involve two or more modes of transport, such as walking to the bus stop then taking the bus to catch the train. Transport interchange points can be busy and congested. People often rush to get to their bus or train and interchange points are often located in places where there are also high numbers of vehicles competing for space. This is intensified at peak times when there are higher volumes of traffic and more people about. The council wants to ensure that all transport interchanges are convenient and recognises the importance of a safe and reliable public transport network.

Policy 1.4 - Improve the accessibility to our piers to aid passenger transport.

Southwark is bounded by the River Thames to the north and is uniquely placed to maximise use of river transport. Travel by river is increasingly being seen as a viable alternative to other modes and can help to relieve congestion on the bus and tube. The council will support improvements to make river services accessible for all.

The council is a member of the River Passenger Services Concordat, this group reviews issues such as pier provision, signage, service quality and environmental performance as well as how to promote the service. Through this shared approach, the council will work with other stakeholders to manage and

develop safe and economically sustainable passenger services to meet the needs of Southwark residents, those employed in the borough and visitors alike.

Policy 1.5 - Ensure that there is a car club bay within five to ten minutes walk of each of household in the borough by 2014.

While we support active travel we recognise that some people will continue to need access to cars, albeit for occasional use only. Currently, many cars spend a majority of time not in use but parked. A car club can provide further travel opportunities more efficiently whilst alleviating pressure on parking on our streets.

A car club offers a car on a pay as you go basis without the disbenefits of car ownership such as tax, insurance, parking permits, servicing or repairs. Car clubs offer the convenience of being able to use a clean, modern and reliable vehicle for those trips that cannot be done using public transport, cycling or walking.

Research[12] among car club members shows that each car club vehicle represents a reduction of over 20 privately owned vehicles (sold or not purchased) and that trip rates are considerably lower than those of the average licence holder (77% of members report travelling as a car driven less than once per week).

There are currently over 100 on street publicly available car club bays across Southwark, placed in areas where they are easily accessible for residents and businesses. As shown in the following figure, the greatest concentration of bays can be found in the north of Southwark, showing a possible relationship between low levels of household car ownership/high levels of public transport provision. The borough would like to provide the opportunity for all residents to participate in car clubs and has an ambitious programme of installing car club bays.

Figure 12, Locations of car club bays

[12] Car Plus annual survey 2010/11

Policy 1.6 - When reviewing CPZs we will ask the community if they would support removal of parking spaces and the introduction of cycle parking, car club bays and/or street trees.

The council has a duty[13] to provide suitable and adequate parking facilities on and off the highway as well as securing "the expeditious, convenient and safe movement of vehicular and other traffic (including pedestrians)".

Whether or not residents in Southwark own or have access to a car, the number of vehicles on many of our streets has increased to a point where it is no longer possible to meet all demands. Southwark's roads provide a finite supply of parking opportunities, limited by various existing measures to improve safety (eg. pedestrian crossings), reduce congestion (eg. yellow lines), improve public journey times (eg. bus lanes) or encourage cycling (eg. cycle lanes). The remaining space can generally be used for parking but in areas where demand for parking outstrips supply the prioritisation of that remaining kerb space becomes essential.

In practice the council meets its duty to provide parking facilities on-street through the introduction of CPZs (where supported by residents) as well as the installation of local parking restrictions outside of those zones, to manage local parking and loading requirements.

Parking controls are required in order to allocate space fairly, the council supports the introduction of CPZs as an important traffic demand management tool. CPZs do not provide long-stay parking for commuters and therefore existing zones assist in reducing car trips within those zones as well as trips across and through the borough. Existing CPZs are reviewed on a regular basis and this provides the opportunity to consider alternative uses of kerb side space which may be attractive to residents.

The main tools that the council uses to achieve its parking objectives are:

• the allocation of on-street space in line with its 'parking hierarchy'

• the setting of fees and charges

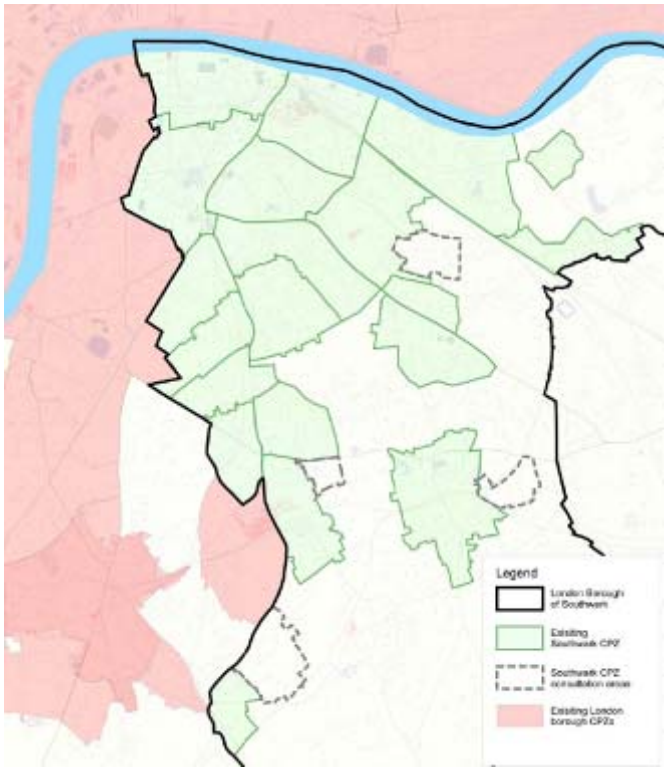
• parking standards for off street parking

• enforcement of parking regulations

Parking controls are also significant in releasing suppressed demand for sustainable modes, such as walking, cycling and public transport. It is important to recognise that the majority of households in Southwark do not have access to a car and the needs of this majority must also be considered in the allocation of street space.

[13] Road Traffic Regulation Act, 1984 (as amended)

Figure 13, Controlled parking zones



When considering parking controls we must also allow for variation according to differing characteristics in different types of location; between residential and commercial areas for example. The identification of potential CPZs is supported by parking stress surveys. These manual 'beat' surveys show occupancy compared to capacity, length of vehicle stay and parking demand type for each street. This information gives the council an understanding of the local usage and pressures on street parking.

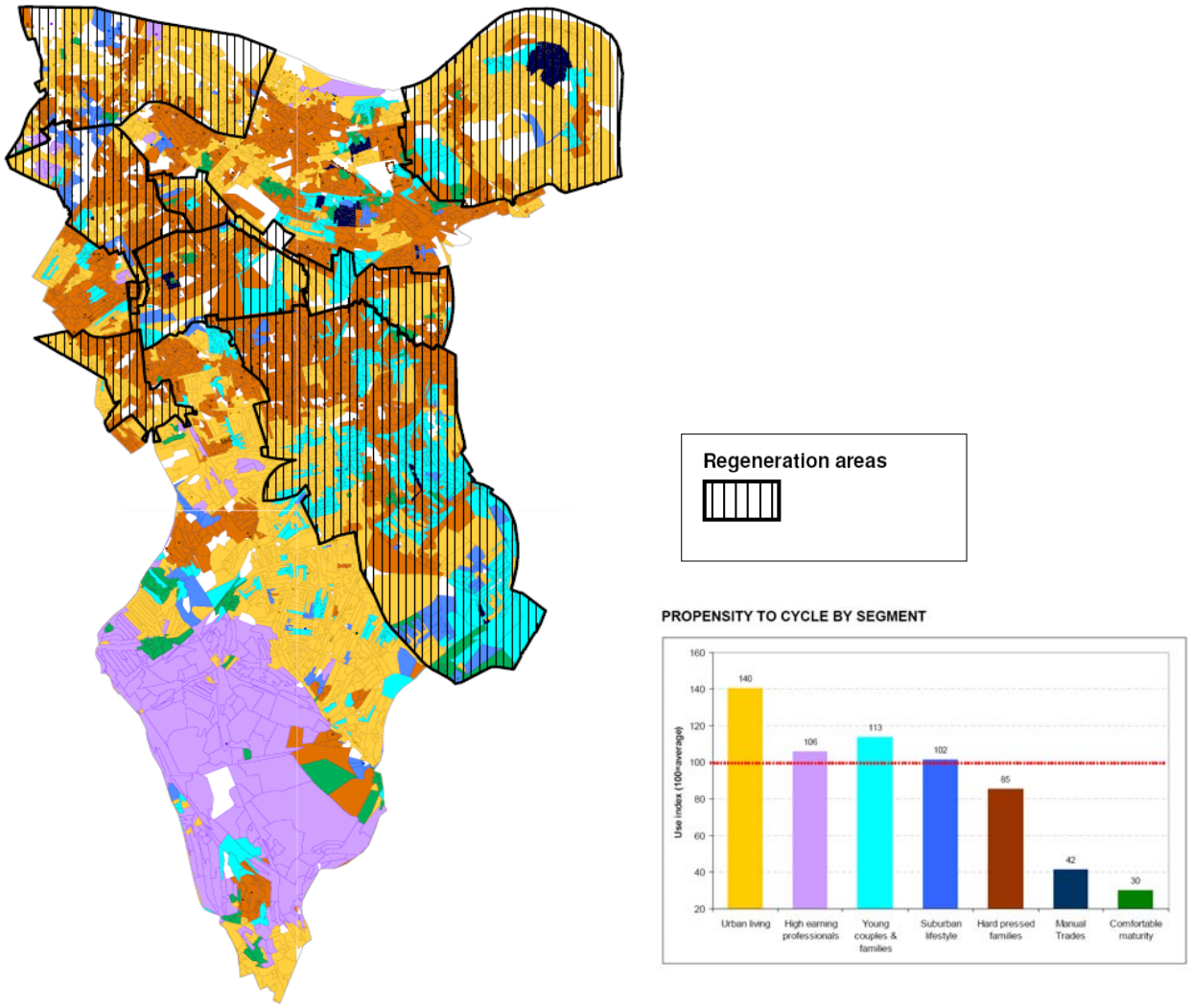
Policy 1.7 – Reduce the need to travel by public transport by encouraging more people to walk and cycle.

Between 2006 and 2007 Southwark and Camden accounted for nearly 22% of London's total population growth. The population in Southwark is predicted to continue to grow; the government has projected that the population will to rise to 305,600 by 2016 and 329,300 by 2026.

In Southwark there are almost twice the number of people per hectare than the average for London (84.86 for Southwark compared with 45.62 for London). With most journeys being less than five kilometres, the housing density coupled with the borough's central/inner London location makes the use of active travel and public transport more practical than generally within London. The impact increasing the mode share of walking and cycling has in alleviating pressure on other modes should not be understated.

The following figure shows the MOSAIC mapping, which details people's propensity to cycle, alongside the areas for intensification identified in the council's local development framework. It helps us to understand the potential for cycling in an area and the nature of people living there. As can be seen, in general these areas overlap, particularly in the Borough and Bankside and Canada Water areas.[14]

Figure 14, Propensity to cycle and development areas



One of the key objectives of the borough's land use policies is to reduce the need to travel and to reduce people's journey distance. A variety of tools are used to enable this, such as supporting development at/near transport nodes, providing mixed use development, promoting accessibility within development sites and actively managing demand for travel.

[14] This tool is market segmentation data and was compiled by TfL. It classifies the population on the basis of postcodes and not just a survey sample.

Policy 1.8 - Improve the walking environment and ensure that people have the information and confidence to use it.

The council actively seeks to manage the demand for travel and promote sustainable travel. In recent years there has been a growing recognition of the importance of walking for quick, convenient journeys. The majority of journeys that we make are within our local area, to the shops, to schools etc. and walking often represents a beneficial option for these journeys. In fact 46.41% of Southwark residents actually work within 5km of their home but only 15% of Southwark residents walk or cycle to work. Of all trips in the borough 31% walking in the main method of travel. Given the wider benefits of active travel, as well as the current pressures on both the private and public transport systems we support active travel, however, we recognise that the appropriate infrastructure needs to be in place.

Pedestrian capacity can also be an issue in the borough, particularly in our employment and town centre locations. There are some particularly busy streets where it is difficult to walk on the footway such as Bermondsey Street, Rye Lane and Borough High Street. Areas around major transport hubs are particularly susceptible to high pedestrian demand. Streets in the Bankside area are already congested with those carrying out their journeys by foot. For example those accessing employment centres in and around Blackfriars and London Bridge, as well as those accessing leisure facilities such as the Tate Modern. With the planned Thameslink improvements increasing the capacity at a rebuilt Blackfriars station, this presents an opportunity to plan for efficient onward distribution once the new southern entrance is in operation.

Leisure walking provides the perfect pace for experiencing the sights and atmosphere of Southwark and we encourage our visitors to walk. Many visitors are attracted to the borough's cultural and heritage sites such as Shakespeare's Globe, the Design Museum, Borough Market, Southwark Cathedral and the Tate Modern.

One initiative hoped to increase the number of journeys undertaken on foot is 'Legible London'. Legible London is a pedestrian wayfinding system to help people walk around the Capital and it is currently installed in Bankside and the Southbank and will be expanded to London Bridge and Elephant and Castle. It is hoped that the scheme will help people change between transport modes in the area more easily, including bus, tube, train and river services.

Legible London primarily serves those that are new to the area, therefore the council will consider providing this system at key destinations including Camberwell town centre (which supports King's College Hospital and the Maudsley Hospitals) and key tourist destinations and routes, such as the Thames Path. When providing additional wayfinding, street signage and street furniture we consider the full life and maintenance costs.

Improvements to encourage people to walk may include footway widening, signage, lighting, and places for people to rest. When developing, or undertaking works, consideration will be given to the council's road and road user hierarchies.

Policy 1.9 - We will remove guard railing where appropriate.

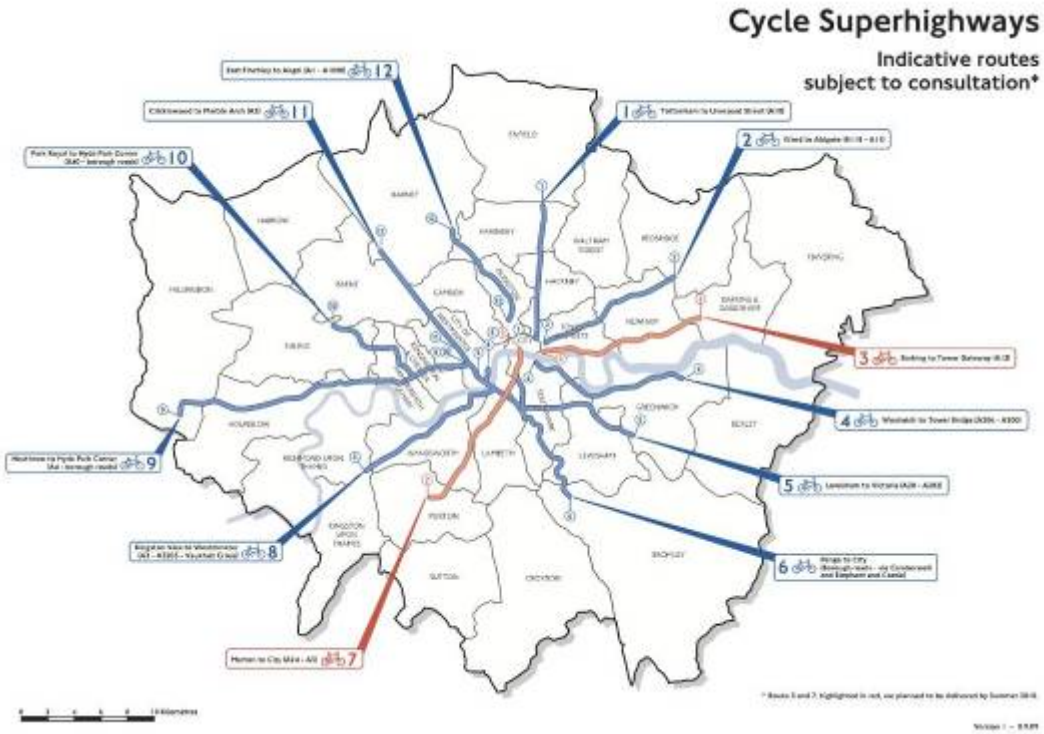
Guard railing was originally conceived to protect pedestrians from motor vehicles. More recent thinking questions whether the extensive use of barriers between the carriageway and the footway may result in an increase in vehicle speeds and lead to pedestrians crossing the road in difficult locations. The council is committed to reviewing the provision of pedestrian guard railing as opportunities arise. When assessing the safety benefits of such railing, the potential benefit to pedestrians on the footway must be weighed against any negative impacts to vulnerable road users on the carriageway.

Policy 1.10 - Improve the cycling environment and ensure that people have the information and confidence to use it.

The number of people cycling to work has grown in recent years and this growth is predicted to continue. The Mayor has set a target to increase mode share to 5% across London by 2026 from 2000 levels. On the 2006 to 2009 average Southwark has a 2.9% cycling mode share and we have set a target of locally increasing cycling mode share to 5% by 2025/26, reflecting the greater density and propensity for cycling in inner London.

The Mayor of London has introduced the cycle superhighways; a network of routes from outer London through inner London to central London aimed at encouraging commuter cyclists. The first route (route seven) passes through Southwark and three further routes are proposed to be introduced in the borough and are shown in the following figure.

Figure 15, cycle superhighway



The cycle superhighways support busy cycle commuting routes and it is important that they are well integrated with the local road network to maximise their usage. This involves complementary measures such as ‘permeability’ improvements allowing contraflow cycling on one-way streets.

Policy 1.11 - Lobby TfL for the further extension of the Cycle Hire scheme to zone two and beyond.

The cycle hire scheme was implemented in July 2010 and offers the public bicycle hire for short journeys in, and around central London. At present the scheme is contained within zone 1 with docking stations located approximately every 300m. The borough has a number of cycle hire docking stations and given the low levels of car ownership and the borough's desire to increase cycling, we feel it is important that the cycle hire scheme is expanded to zone 2. This would increase the travel choices available to residents and promote a further shift to cycling. Currently the planned expansion is concentrated eastwards and north of the river. This leaves an obvious gap south of the river

Policy 1.12 - Ensure that cycle parking is provided in areas of high demand and in areas where convenient.

The provision of secure, convenient and available cycle parking is important to increase and maintain cycling's popularity. Cycle parking should be located in areas with good lighting and high activity (for observation) and be close to the user's destination. Along with providing adequate cycle parking, it is essential that the area surrounding the parking facilities is safe and secure. Most trips that are currently cycled are work related (50%) or shopping and leisure related (34%). When considering the trips that can potentially be cycled, shopping and leisure trips rank the highest at 39% followed by work trips at 31% and education and other trips at 30%. It is therefore necessary that cycle parking at these key destinations be provided. Cycle parking needs to be thought about in the areas designated as major town centres; district town centres and local centres. If we wish to encourage cycling for shorter (<5km) distances, good quality, secure parking will be important at the district and local level. A cycle parking audit has previously been carried out, and we now plan to update this and make the information available to the public.

The central sub regional transport plan supports the creation of cycle hubs at major rail stations. London Bridge is one of the most used stations in London and should have adequate, secure cycle parking. The council is working with TfL and Network Rail to achieve a new cycle hub at London Bridge station. This should include additional secure, covered cycle parking, repair facilities, a cycle hire docking station and improved access to and from the station as well as information.

The current cycle parking standards for non residential use are contained within the borough's LDF. This includes the requirement for all new developments in the borough should also include cycle parking provision for at least 10% of visitors, which will normally be on street and available for anyone to use, not just their visitors. The LDF cycling parking requirements are detailed in the following table:

Table 9, Cycle parking standards

Land use	Cycle parking standard (min)
Shops, financial and professional services, restaurants and cafes, drinking establishments, hot food takeaways and business (A and B1)	1 space per 250m^2, min 2 spaces
General industry (B2)	1 space per 500m^2, min 2 spaces
Storage or distribution (B8)	1 space per 500m^2, min 2 spaces

Around 28.5% of households in Southwark have at least one bicycle and more households store their bicycle inside their property than anywhere else[15]. However, many bicycles are stored in external locations such as bicycle racks or railings.

Many Southwark Council estates lack any decent cycle storage and so increasing cycle parking on the estates is a priority if we are to remove some of the obstacles to cycling. The council supports the introduction of cycle parking in housing estates and has had success in introducing this parking through the community led cleaner greener, safer programme. To date 130 additional cycle parking spaces have been created on estates, with scope for a further 46, subject to demand.

The safety of cycle parking can have a big impact on how many people choose to cycle. Cycle theft and criminal damage discourages people from taking up cycling and dissuades many victims from continuing to cycle. A study by the Transport Research Laboratory[16] found that one in four cyclists stopped cycling after being a victim of cycle theft.

While Southwark has seen a significant reduction in cycle theft (24% since 2004[17]) we will continue to improve the safety and security of cycle parking in the borough. It is vital that the growth in the number of cyclists is matched by a radical change in cycle security to ensure increased cycling levels do not result in more cycle theft and criminal damage. As part of our Travel Awareness programme, for any Dr Bike event we will invite the Met Police cycle team along to advise on cycle security and to provide free security cycle marking.

[15] Southwark Housing Requirement Study 2008

[16] Davies, Emmerson and Gardner 1998

[17] British Crime Survey (BCS) comparator crime data

Delivering objective 1: Manage demand for travel and increase sustainable transport capacity	
Actions to deliver this objective	Install additional cycle parking in areas of high demand
	Implement improvements to network permeability for cyclists
	Lobby TfL for cycle hire extension to zone 2
	Install Legible London at key destinations
	Install additional on street car club bays
	Lobby TfL for pedestrian capacity improvements in the areas around London Bridge and Borough High Street
	Consult on alternative uses of kerb side space during CPZ reviews
How we will measure that we are meeting this objective	Excess wait times for high frequency bus services from 1.2 minutes to 1.0 minute in 2013/14
	Increase the walking mode share in Southwark to a third (33%) by 2013
	Increase the proportion of those cycling in Southwark from 2.9% to 4% by 2013/14
	Reduce traffic levels in Southwark by 3% by 2013

Objective 2: Encourage sustainable travel choices

How we choose to travel is a personal decision and the council seeks to equip people with the necessary information and tools to consider travelling sustainably for part of or their entire journey. This may be cycling to the station to go to work, catching the bus to the shops or walking to school. There are many benefits to travelling sustainably, from improved health through increased physical activity, to the wider community benefits associated with reduced car dependency, traffic congestion and related pollution levels.

The first step to encouraging sustainable travel is understanding the need to travel. Travel plans have become an essential tool for the delivery of travel behaviour change. They are increasingly important in helping us to understand why and how people travel and in identifying tools that can help broaden travel choice. There are four main types of travel plans within Southwark, those prepared for schools, workplaces, residential developments and geographical areas.

By encouraging sustainable travel choices we will be working to enhance the quality of life for Londoners, improve travel opportunities and reduce transport's contribution to climate change all of which are goals of the Mayor's Transport Strategy.

Policy 2.1 - Work with the school community to encourage more children to travel to school sustainably.

The council assists all schools and their community in producing travel plans. The travel plan process helps the council meets its statutory duty to assess and provide for the travel needs of children and young people and to promote sustainable travel. School travel plans help identify local issues and highlight any barriers to walking and cycling to school, paving the way for the production of an agreed action plan.

The first step is an assessment of the travel habits of children, their parents and school staff. This is primarily based on an annual 'hands up' survey conducted in each class. The following table gives a picture of travel to school from 89 of Southwark's 111 schools over the last five years.

Table 10, School modal split

Year	Mode (%)					
	Walking	Cycling	Public transport	Car	Car share	Other
2005/06	50	3	22	21	3	1
2006/07	60	1	20	17	2	0
2007/08	49	3	26	18	3	2
2008/09	45	3	29	17	3	3
2009/10	47	3	28	15	3	4
2010/11	56	4	22	14	2	2

Source: Hands up' survey

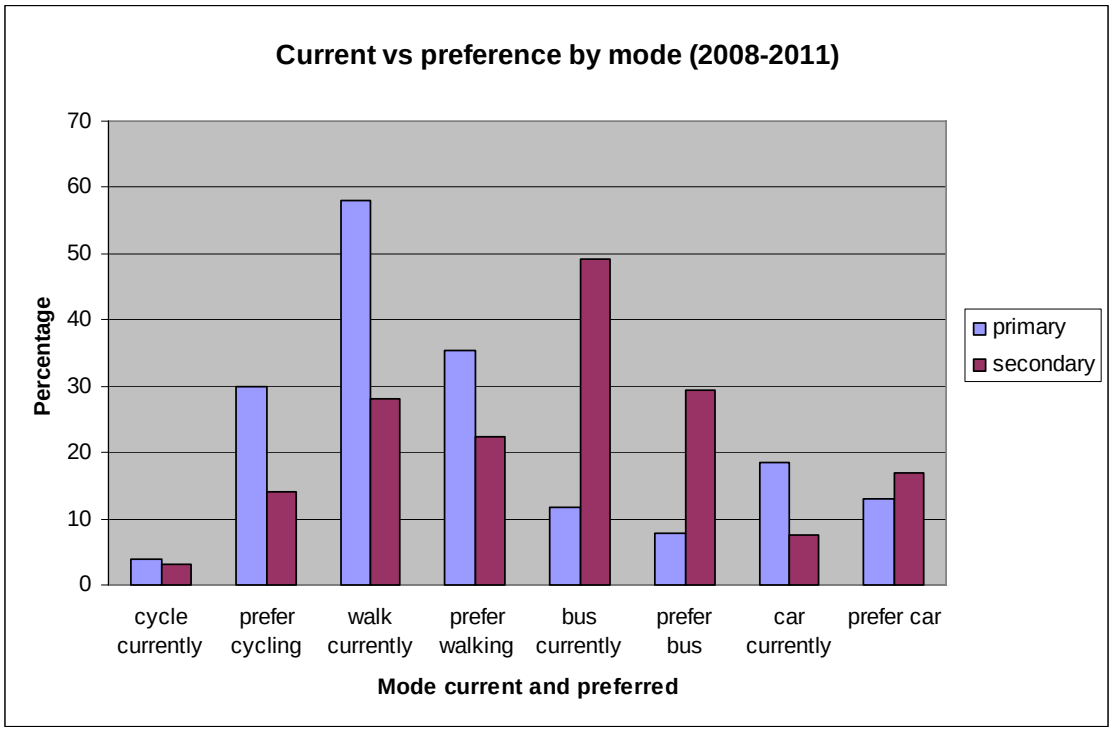
This data shows that the number of children being driven to school has fallen steadily while other other modes, such as public transport, walking and cycling have fluctuated.

There is likely to be a link between how children travel and how far they have to go. For many primary schools (71%), three quarters of their students live less than a kilometre away. This should make walking a clear option in most cases.

The picture is very different for secondary schools where most students live significantly further away. For secondary schools, public transport and cycling, rather than walking, become the most viable alternatives to car travel.

The 'hands up' survey also records student's preferred mode of travel as shown in the following figure.

Figure 16, Walking and cycling levels versus preference for travel



Source: Hands up' survey

The discrepancy between actual and preferred mode in relation to cycling indicates that there are still practical barriers to getting more children to cycle, most likely including the safety concerns from parents and guardians. Developing a better understanding of attitudes to sustainable modes and what it would take to 'trigger' a greater shift toward these underpins the council's work.

Policy 2.2 Work with businesses, employers and organisations to encourage more staff to travel sustainably.

Workplace travel plans promote the use of sustainable modes of travel to and from the workplace and during the course of daily business and set targets to measure this performance. The council continues to assist businesses in producing travel plans through the voluntary process. We will also continue to secure and monitor them through the planning system.

While travel plans for workplaces and schools are now widely recognised as effective tools in cutting traffic, until recently little attention has been given to tackling the origins of journeys from people's homes. London will experience strong demand for new housing over the next 15 to 20 years, with the

population projected to grow by nearly one million people. Residential travel plans play a major role in helping deliver a high quality, accessible and compact city. The council works with developers to secure and monitor an increasing number of travel plans through the planning system.

In two areas of the borough – Camberwell and Bankside – travel planning groups have been established in order to address local problems with local solutions, bringing together public sector agencies, local groups and businesses. Solutions to infrastructure issues in the areas are looked at, and the groups feed in to relevant consultations. Smarter travel projects are also a key part of the groups' work, with promoting walking and cycling a key focus. The groups aim to achieve modal shift towards sustainable travel modes.

Policy 2.3 - Promote and encourage sustainable travel choices in the borough.

The council seeks to expand the range of travel choices available for people to consider, rather than to tell people how they should travel. Providing relatively minor, low cost interventions such as better information on travel options can make a real difference when people make travel decisions.

The council uses events and campaigns to promote active travel in Southwark. These events can be specific to the borough or part of a regional / national campaign such as 'mobility week' and 'bike week'

Travel awareness events typically involve officers promoting a particular initiative, such as bike week. This can be done in a variety of ways, for example, Dr Bike, which is a free bike check. Anyone can bring their bike along to be checked for safety by a qualified person and advice is given on any mechanical problems which cannot be quickly fixed on the spot. At these types of events officers engage with the community in order to promote cycling and gain feedback on local barriers to active travel. The events happen all year round, some are planned well in advance and others are in response to a need or opportunity.

These travel awareness events help the council to understand and address local issues and barriers to active travel.

Policy 2.4 - Continue to support improving skills and knowledge to travel sustainably.

It is important that people are not only given the choice but the skills and confidence to travel sustainably and independently. Engagement with the community, be it children, adults or the elderly, is important to help them better understand how to travel around the borough safely and with confidence. This is particularly important for children; pedestrian and cyclist training in schools is now more common and will help to form good life long habits.

Pedestrian training is carried out at primary schools within the borough, specifically targeted at children in year three. Officers go into the schools and engage with the local children, discussing issues such as how to safely use the roads, including crossing roads and finding suitable routes.

Table 11, Number of people receiving pedestrian training

Year (calendar)	2007	2008	2009	2010
No. of participants	3,139	3,152	3,314	2,150

Source: Southwark Council

To support pedestrian training in schools Southwark maintains a number of school crossing patrols which help children cross the road safely while walking to and from school. School crossing patrols can by law stop traffic for any pedestrian to cross the road. Any motorist failing to stop when requested by a school crossing patrol is committing an offence and will be reported to the police for prosecution

In order to try and encourage school children to cycle to and from school, Southwark offer free cyclist training in schools to all primary school children (focused on year five and six pupils). The aim is to prepare and enable them to travel safely to secondary school and beyond. Southwark also offer cyclist training to secondary schools, although the uptake of this is low and this is an area for improvement as surveys show that the level of cycling falls away following the transition to secondary school.

Table 12, School cyclist training

Financial year	Pupils
2008/09	396
2009/10	563
2010/11	507

Source: Southwark Council

Although there was a marked increase in cyclist training in schools between 2007 and 2010, cycling as a percentage modal split of those travelling to school, has remained static. This raises the question of whether we need to do more to allay parent's fears of perceived danger and vulnerability before they allow their children to cycle to school.

Where possible, Southwark promotes independent travel by sustainable transport for children and young people. There are 1,600 children with special educational needs in Southwark. Of these, 396 (in 2008/9) qualified for assisted travel to school. Overwhelmingly, the most popular choice of travel at the seven special schools is the dedicated school bus.

The council's independent travel training programme enables those who have difficulty negotiating the transport system to make journeys on their own. This gives these people (students and adults) increased confidence as well as life long skills. A DVD has also been created for the parents of special needs students informing them of the training and encouraging them to ask their school to provide the it. Southwark officers also train members of staff who can then train their special needs students in independent travel.

We are currently exploring ways of involving students taking part in the Duke of Edinburgh award programme to help mentor younger students.

The council also offers a significant cyclist training programme. Cyclist training is advertised on Southwark's website, at all travel awareness events and recently through a targeted postcard distribution around the borough. The following table shows the increasing level of adults (over 14) who have received training. It should be noted that this increase has been delivered against a backdrop of increasing levels of funding. In 2010/11 the council was awarded additional funding to increase the number of cyclists training alongside the introduction of the cycle superhighway 5.

Table 13, Adult cyclist training

Financial year	No of adults who received cyclist training	No of adult cyclist lessons
2008/09	289	380
2009/10	303	394
2010/11	592	876

Source: Southwark Council

Despite the numbers receiving training, a recent survey conducted for the low carbon zone in Peckham showed most residents in that area (approximately 86%) were not aware there was free cyclist training available to them. Increasing people's awareness of cyclist training and encouraging more active travel amongst those who may benefit most from, can only serve to improve the health and wellbeing of the borough.

The council currently records the volume of training delivered, but it is equally as important to understand the impact it has. For example, how many people start or continue to cycle regularly after receiving the training? Whilst this information is difficult to capture, we are committed to understand the benefits of cyclist training to ensure that the council makes the best use of limited funds to get more people cycling safely in Southwark.

Delivering objective 2: Encourage sustainable travel choices	
Actions to deliver this objective	Work with businesses and travel plan groups to expand the number with active travel plans
	Work with staff, students, parents and guardians to promote and implement school travel plans
	Ensuring people have the skills to travel sustainably through practical training such as cyclist, pedestrian and independent travel training
	Continue to work with the Mayor and TfL to deliver the cycle superhighways and to provide complementary measures
	Lobby TfL for cycle hire extension to zone 2
	Produce a calendar of travel awareness events
How we will measure that we are meeting this objective	Excess wait times for high frequency bus services from 1.2 minutes to 1.0 minute in 2013/14
	Increase the walking mode share in Southwark to a third (33%) by 2013
	Increase the proportion of those cycling in Southwark from 2.9% to 4% by 2013/14

Objective 3: Ensure the transport system helps people to achieve their economic and social potential

Southwark's proximity to central London generally provides good access to the employment opportunities located there, but congestion and overcrowding can affect the journey experience and become a disincentive to travel. As well as travel into central London, good access to and investment in Southwark's own town centres will become increasingly important as they become destinations in their own right.

In delivering this objective we will be working towards improving journey experience and supporting access to employment. This will help the Mayor of London reach his Transport Strategy goals of improving the quality of life for Londoners and improving transport opportunities for all Londoners.

Policy 3.1 – Lobby TfL and other public transport providers to improve the journey experience of passengers.

The public transport network (road and rail) within the borough suffers from significant pressure due to the high level of demand and the congestion this causes. Journey experience can be poor at busy times due to overcrowding and service reliability issues. Watching a full bus pass by your stop is a dispiriting experience and crowding onto your train in the morning is not the best preparation for a day at work. Travel to work only makes up 20% of all the trips we make. Nowadays we often have to travel to take part in social activities and educational opportunities.

Journey experience affects wider travel choices and opportunities. For some people a single bad experience can mean that they choose not to travel, which can lead to isolation and social exclusion. We need to ensure that service levels are maintained and journey experience is good for the many people who travel. Simple things can make a difference; poor customer service from bus drivers or station staff may be enough to deter some.

Buses in Southwark perform relatively well in terms of reliability – see Section 3. The measures used to judge this, however, do not take account of overcrowding on buses or the additional wait time for passengers unable to board a bus that is full on arrival at their stop. Buses that do stop may still not be able to accommodate some users at busy times; there is limited space for push chairs for example. Boarding with a wheelchair may also be difficult at busy times. The provision of bus services needs to be responsive to peak demand, taking into account the needs of all users, particularly in those areas where alternative means of transport are limited.

Journey experience can also be poor on tube and overground rail services in Southwark. Parts of the Jubilee and Northern Lines are particularly affected by overcrowding and the timely implementation of planned improvements to tube services is essential. Maximising opportunities to improve overland services is also key given the limited extent of the underground network in the borough. For example, infrastructure improvements to the Thameslink route provide the opportunity to run services through the centre of London to and from more stations in Southwark and this has significant potential to improve access to opportunity for our residents. The re-configuration of London Bridge station associated with the Thameslink project also has the potential to reduce capacity constraints for services calling at Southwark stations, reducing delay and improving the journey experience for passengers.

We also need to be mindful of the experience of passengers arriving at their destination station or stop. In particular, the London Bridge area suffers from significant pedestrian congestion as commuters continue their journey into the City and beyond. The redevelopment of London Bridge will significantly improve conditions for passengers within the station, but it is equally important to ensure that access to and from the station by foot is improved to match this.

Policy 3.2 - Support access into employment.

As well as supporting those already in work, it is important to maximise opportunities for those seeking work or training. The Southwark Employment Strategy identifies transport and access to work as a barrier to employment. Among other factors, a lack of knowledge about routes, timetables and ticketing can make accessing work particularly difficult for some. Recent research among job seekers in Southwark suggests that many are receptive to the idea of walking to work where feasible and that the provision of better information on walking routes could make this option more attractive[18].

Policy 3.3 - Prioritise investment in our town centres.

Southwark's town centres represent the heart of local communities. They are places to meet, to shop and where many local residents work and spend leisure time. The council's ambition for our town centres is that they are to be economically vibrant, lively, welcoming places[19].

Major improvements are planned for a number of town centres as part of regeneration schemes including Elephant and Castle and Canada Water. Camberwell town centre is set to benefit from significant improvement through the Mayor's Major Schemes programme in a scheme that will transform the area as a place to work, shop and spend time in. Where regeneration is proposed this provides the opportunity to design out crime, improve accessibility and interchange and determine appropriate servicing and loading arrangements.

The success of the local economy is dependent on people wanting to visit and spend money, so people should be able to get to and move around these locations with ease. Research shows that pedestrians, cyclists and bus users generally spend more than others in town centres so promoting these modes makes good business sense[20]. Likewise, improving the quality of our shopping streets by investing in the public realm has been shown to benefit traders and shoppers alike[21]. 81% of respondents to our Transport Plan survey supported prioritising investment in town centres.

Neighbourhoods are important because shopping and commercial centres often define a neighbourhood, providing a focus for the community. They provide a wide range of shops and other services used by local communities. Local retail parades provide a key service for the community and have the potential to increase accessibility and reduce the need to travel as well as supporting wider social goals. The majority of trips to these locations will generally be made on foot or by bicycle and therefore these modes should be prioritised. Provision for motor vehicle access needs to reflect local circumstance and in particular consider how visitor parking provision may support business viability whilst balancing the greater priority that is given to local residents and business servicing in the parking hierarchy.

---

[18] Travel to jobs and training, Southwark Council, 2011

[19] Council's LDF, Core strategy

[20] Understanding the economic contribution made by bus users to London's town centres, TfL, 2009

[21] Paved with gold: The real value of street design, CABE, 2007

Delivering objective 3: Ensure the transport system helps people to achieve their economic and social potential	
Actions to deliver this objective	Lobby transport operators for improved transport services and connections
	Continue to work with TfL and transport operators to feedback customer service related comments
	Work with job centres and other agencies to provide information to job seekers on sustainable travel options
	Seek to identify schemes to improve access to and within town centres
	Implement the Camberwell town centre scheme
How we will measure that we are meeting this objective	Excess wait times for high frequency bus services from 1.2 minutes to 1.0 minute in 2013/14

Objective 4: Improve the health and wellbeing of all by making the borough a better place

Health and wellbeing is at the top of most of our wish lists for ourselves and our families. People want to stay as healthy, active and as independent as possible. Our ability to achieve and maintain good health and wellbeing is determined by a number of factors including income, housing, environment and our ability to get around and access the services we need.

Physical activity not only contributes to well-being, but is also essential for good health. For adults 30 minutes of physical activity a day are recommended to maintain good health and twice that amount for children[22].

While adult participation in sporting activity is increasing in Southwark[23], it can be difficult to set aside time for keeping fit. To reach beyond sports enthusiasts, physical activity needs to be seen as enjoyable and useful – not as unnecessary effort. Incorporating exercise into our daily routine can achieve this and increasingly people are making travel choices based on their desire to lead healthy lifestyles.

Improving the public realm has the potential to encourage health and wellbeing by creating a better environment for physical activity and recreation. Improvements to our streetscape can bring communities together by creating a sense of place. Getting the right balance between the different uses and users of our streets is key to achieving this.

As part of this objective to deliver improved health and wellbeing we will promote active lives, create places for people to enjoy and involve the community in street improvements, all of which will work towards the Mayor of London's Transport Strategy goal of enhancing the quality of life for Londoners.

Policy 4.1 - Promote active lifestyles.

Walking is the perfect exercise; it costs nothing and requires no special equipment or facility. Walking has enormous health benefits such as reduced risk of heart disease, stroke, osteoporosis, diabetes, high blood pressure and some cancers. Any form of exercise, including walking, also increases levels of endorphins and feelings of well being.

Walking for pleasure or simply for exercise is intrinsically linked to purpose driven walking and so promoting one can influence the other. By encouraging recreational walking we can influence the way people view walking as a viable travel option for a wider range of trips.

There is ample opportunity for recreational walking in Southwark. Southwark supports over one hundred and thirty parks and open spaces which make up around 20% of the borough. Our many parks and green spaces provide a pleasant and convenient walking environment. The borough supports walking routes such as the Jubilee path, Thames Path and the Green Chain. We promote led walks in the borough to introduce people to walking, whether for leisure or just for building confidence in travelling by foot.

Promoting active lifestyles is very much an agenda shared by the health sector and we are working with GPs in Southwark to help them promote walking 'on prescription' schemes. This is where a doctor can recommend a patient to complete a certain amount of physical exercise for example by exploring local walking routes.

---

[22] At Least Five a Week: Evidence on the impact of physical activity and its relationship to health, Department of Health, 2004

23 Active People Survey, Sport England, 2010

Much of the above, also applies to cycling. A recent study in Southwark showed that 'health reasons' were the most common motivation for cycling along a key cycle route in the borough[24]. Southwark is a great place for leisure cycling. Considerate cycling is permitted in all our parks and they are ideal places for those wishing to try out cycling, particularly for children. Promoting leisure cycling can provide a way in to purpose driven cycling for many people. Many people would like to be able to cycle through our parks as part of their journey to work and have asked the council to open parks earlier and close them later. While the council tries to support this, in many circumstances this is not achievable due to local management arrangements.

Southwark benefits from many small parks, green spaces and quiet side streets and these have the potential to be developed as 'green links', providing an attractive alternative to our main traffic routes. Small scale improvements can make a real difference and we are working with local communities to identify how we can create more opportunities for local walking and cycling trips in their neighbourhoods.

Policy 4.2 – Create places that people can enjoy.

Our streets need to accommodate many different activities. Most act as a route from A to B in one way or another, but the road network can also be the setting for many other activities, from shopping and socialising to exercise and play. Some streets have a different role to play at different times of the day. For example, market areas are often closed to vehicles during market times, but operate as trafficked streets the rest of the time.

We need to make our streets more conducive to other activities beyond the carriage of through traffic. Where streets are dominated by motor vehicles this is a challenge, and even on streets where traffic is light the variety of uses once existed has contracted for example few children play on our streets nowadays. Re-thinking how our streets function, making them safer and able to support a wider range of activities can restore our streets as places to be, rather than just to pass through.

One of the key questions we face is to what extent we should separate different road users from one another. The Walworth Road scheme is an example of a 'shared space' approach[25]. This previously traffic dominated street has undergone considerable change: Bus lanes have been removed to allow wider pavements; we have removed pedestrian railings and created step free crossing points all along the street. As a result, pedestrian footfall has increased (particularly among vulnerable pedestrians), while general traffic and bus journey times have been maintained and the number of collisions has gone down[26]. Projects such as the Walworth Road can help to restore a sense of place to streets which have become dominated by motor vehicular traffic at the expense of local needs and activities.

When developing shared space schemes such as the Walworth Road it is especially important to consider how they will be experienced by vulnerable road users. For any shared surface proposals the needs of blind or partially sighted people must be fully considered. Our approach to street design and management is set out in detail in the council's emerging Streetscape Design Manual[27].

---

24 Southwark LIP pre-monitoring report, 2010

25 Shared space is a broad concept about the way different users interact with each other. Shared surface is a design approach where kerbs are removed between the footway and the carriageway in order to encourage user interaction

26 Walworth Road improvement scheme: Monitoring report, Southwark Council, 2010

27 Southwark Streetscape Design Manual: Consultation draft, Southwark Council, 2011

Policy 4.3 - Help communities shape their streets.

Understanding how people use streets and how they would like to use them is crucial to deciding how to allocate limited street space. Getting the balance right will help to reduce conflict and promote understanding and tolerance between different user groups.

Local people use their streets more than anyone else and the council supports approaches to enable local communities to become involved in the way their streets are designed and managed. 81% of respondents to our Transport Plan survey expressed an interest in greater involvement in shaping their streets and we want to foster this enthusiasm.

The Salisbury Row streets for people project demonstrated how a high level of community input can lead to better outcomes for local people and help achieve wider objectives[28]. As well as such large scale investments in our public realm, we are keen to explore smaller scale, 'community streets' approaches such as the recent project on Staffordshire Street in Peckham.

'Community streets' encourage local people to get involved in designing and managing their own streets, supported by small scale infrastructure interventions. We hope that by encouraging ownership of design proposals the local community will continue to take care of their street into the future, ensuring the quality, appearance and individuality of their street is maintained. We also expect that getting local people involved in such projects will be good for community relations and social cohesion.

Policy 4.4 - Make our streets greener.

Street trees and landscaping provide an important function in our streetscape, improving the way streets look and making the environment more pleasant. Trees (particularly mature trees) and vegetation provide shading and cooling, help to mitigate climate change, improve local amenity and can mask traffic noise. By intercepting rain and reducing heavy run off, they can also reduce flood risk. Well chosen trees can contribute to biodiversity in terms of habitat and food. There is also emerging evidence that strategic planting can act as a form of traffic calming[29].

When planting new trees we need to ensure that they do not detrimentally affect street lighting levels and are planted in a way that does not create difficulties for pedestrians (for example installing root guards). The presence of underground services is a constraint that can limit our ability to plant trees in certain areas. Trees need to be well maintained and this needs to be planned and budgeted for.

At times it can be necessary to remove a tree for reasons of safety and integrity, both of the highway and buildings. Tree replacement is assessed on an individual basis and using the principle of 'right place, right tree'. Further details of our approach to trees and planting can be found in the council's tree management strategy[30].

[28] Reclaiming the streets: Salisbury Row, Southwark Council, 2011

[29] Taking on the rural road safety challenge, DfT, 2010

[30] Southwark Tree Strategy 2010, paragraph 4.2.3

Policy 4.5 - Enhance quality of life through the built and natural environment.

In order to remove potential conflict between townscape and the historic environment there is a need to ensure that our transport interventions make a positive contribution to the historic environment of Southwark. Interventions to manage travel demand, smooth traffic, improve perceptions of safety (e.g. antisocial behaviour, graffiti/ vandalism), create better places and encourage more sustainable travel behaviour will contribute to improved air quality, reduced noise levels and the enjoyment of local places. These will all help Southwark to protect and make the most of our historic and heritage assets.

The council's emerging Streetscape Design Manual and Highway Asset Management plan detail our approach to creating and managing public spaces to enhance our streets and historic environment. All public realm schemes will have regard for these emerging documents through their design and implementation.

Delivering objective 4: Improve the health and wellbeing of all by making the borough a better place	
Actions to deliver this objective	Promote walking routes in Southwark
	Promote led walks and rides in the borough
	Work with health practitioners to encourage walking and cycling for their patients
	Develop green links to promote walking and cycling in local areas
	Test any shared surface proposals with users representing a full range of mobility needs
	Engage with local people to develop 'community streets'
	Install street trees by the 'right tree, right place' method
How we will measure that we are meeting this objective	Increase the walking mode share in Southwark to a third (33%) by 2013
	Increase the proportion of those cycling in Southwark from 2.9% to 4% by 2013/14

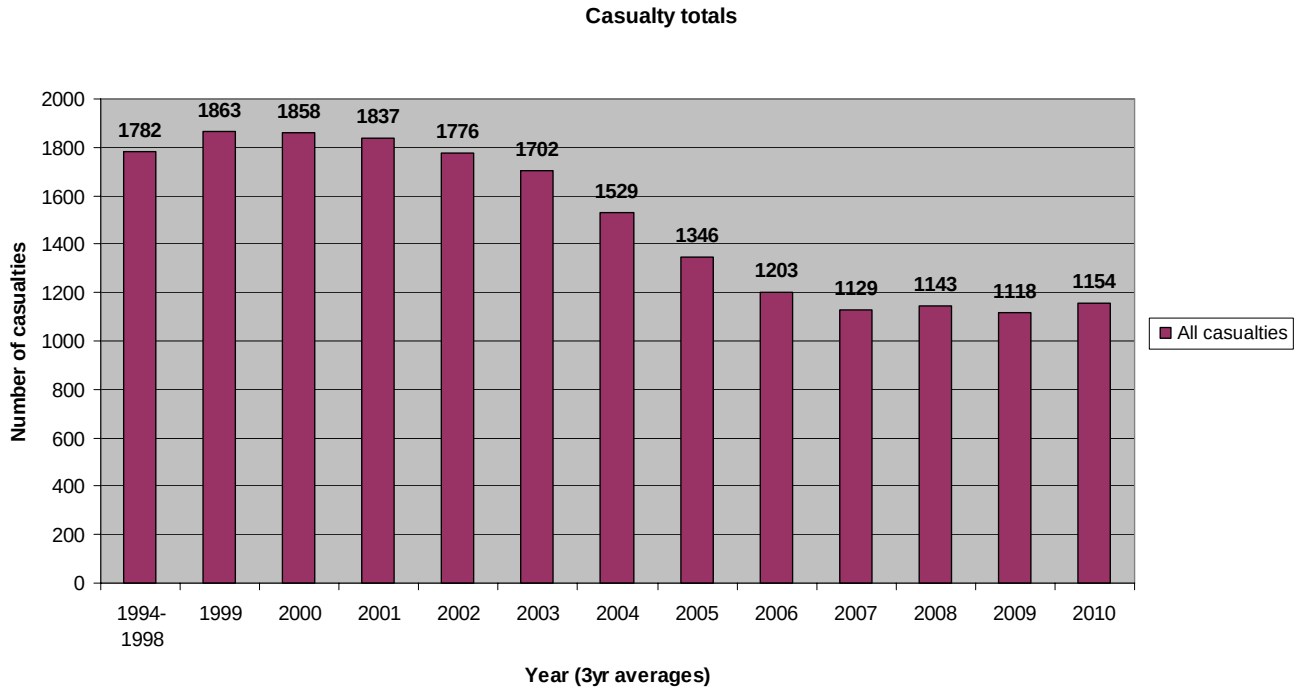
Objective 5: Ensure the transport network is safe and secure for all and improve perceptions of safety

We are committed to safer travel in the borough in order to reduce the potential for road user casualties and to reduce casualty severity. It is important that people should be able to travel safely and without fear to the places where they live, work, shop, study and spend their leisure time. In delivering this objective we will be working towards a common goal with the Mayor of London to improve safety and security of all Londoners.

Policy 5.1- Improve safety on our roads and to help make all modes of transport safer.

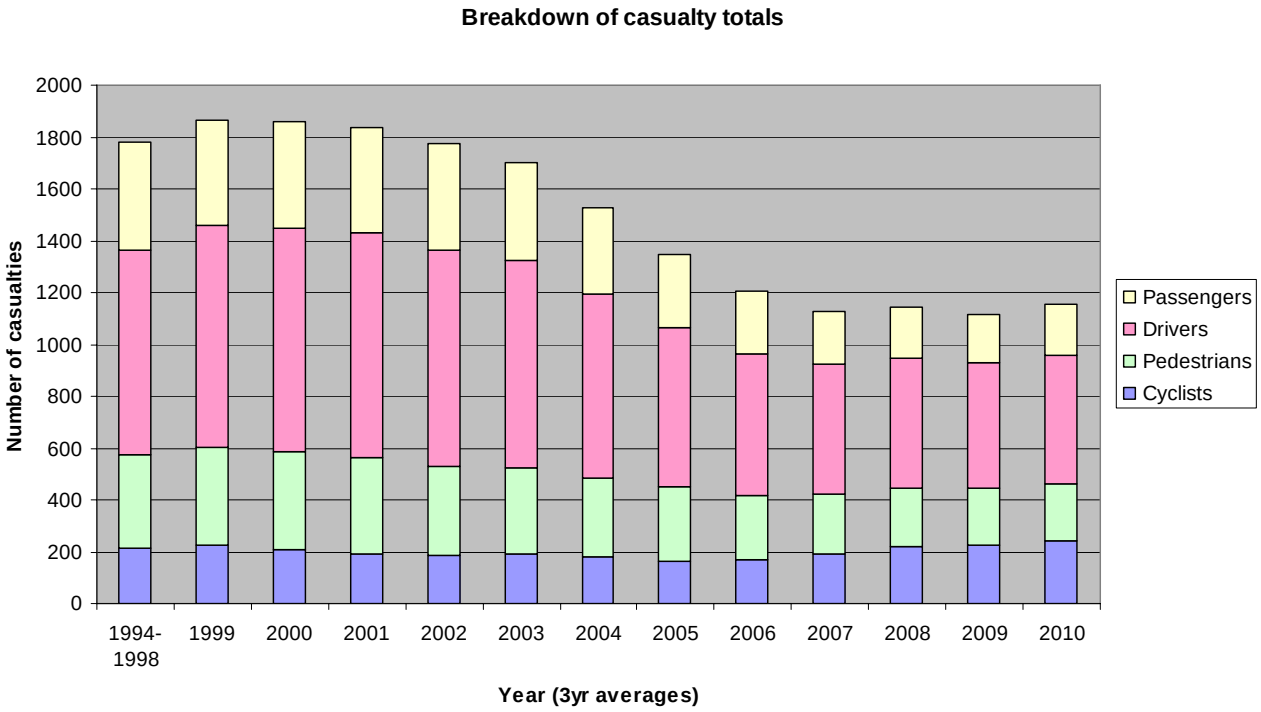
Road collisions have serious and often devastating effects for those involved, their families and their friends. Recent years have seen record levels of investment in Southwark for improvements to road user safety. Such measures include better facilities for vulnerable road users, training to improve road user behaviour and initiatives to improve our children's safety on the roads. Since the late 1990's there have been significant reductions in the number of casualties, however this reduction has slowed in recent years and the number of casualties per year has remained fairly constant since 2006.

Figure 17, All casualties 1994/98 to 2010



Source: Department for Transport

Figure 18, Collision and casualty trends in Southwark



Source: Department for Transport

Pedestrians make up 20% of all casualties on our roads and the majority of these are aged 25 to 59. Sadly, collisions involving pedestrians tend to be more severe than other modes and 50% of people killed on London roads are pedestrians. Many of these collisions are located on busy roads and/or in town centres.

Figure 19, Locations of pedestrian collisions (Jan 08 – Dec 10)

Source: Department for Transport

Safety for pedestrians in our town centres is a serious issue. Over 30% of all collisions in town centres involve pedestrians, compared to fewer than 20% for the whole of the borough[31]. Tackling the source of this threat requires an increase in pedestrian priority in these areas combined with reductions in traffic volumes and speeds.

Policy 5.2 - Lobby/work with TfL to improve safety on our busy roads.

Around 60% of all collisions in Southwark occur on the busier roads like Borough High Street and the Old Kent Road. In the most recent 3 year period 47% of all collisions in Southwark occurred on the TLRN. Therefore TfL must also play a key role within Southwark to reduce the occurrence of these collisions.

[31] This is taken from a sample of four town centres comprising, The Blue, Camberwell, Lordship Lane and Peckham.

Busy roads play an important role in the distribution of traffic but this should not be at the expense of safety. They are essential for the servicing of our town centres and for the supply of goods and services. The majority of buses also travel on these roads and often run through town centres, where we see higher concentrations of road users and a higher risk of conflict.

Policy 5.3 - Target commuter cyclists in road safety campaigns.

Unfortunately injuries to cyclists have increased for the fourth year running as shown in figure 18. This is a major concern for the council, but should be viewed in the context of the rising number of people that have taken up cycling. Of all people injured on Southwark's roads, 20% are cyclists and a large proportion of these are male and aged between 25 and 59.

Most cyclist collisions (77%) occur between 7am and 7pm and of these around two thirds occur in the morning and evening peak.

Table 14, Percentage of cyclists and cyclist collisions by time of day (Jan 08 – Dec 10)

Time	% of cyclists	% of collisions
07:00 - 08:00	8.4	9.3
08:00 - 09:00	16.8	16.4
09:00 - 10:00	10.4	12.3
10:00 - 11:00	4.4	4.1
11:00 - 12:00	4.8	4.6
12:00 - 13:00	5.2	5.5
13:00 - 14:00	5.8	5.3
14:00 - 15:00	5.4	4.4
15:00 - 16:00	5.9	6.2
16:00 - 17:00	7.1	8.5
17:00 - 18:00	11.6	9.3
18:00 - 19:00	14.3	14.1
07:00 - 19:00	100.0	100.0

Source: Department for Transport

Figure 20, Locations of cyclist collisions (Jan 08 – Dec 10)

Source: Department for Transport

Policy 5.4 - Seek to reduce vehicle speeds and educate and enforce against those who break speed limits.

Among behavioural factors linked with collisions on the roads, inappropriate speed is a primary concern for the council; not only can excessive speed cost lives, but it can also make for unpleasant, intimidating streets that act as psychological as well as physical barriers to movement. Most collisions in Southwark occur on busy roads and at junctions on roads where the speed limit is 30mph. Areas in the borough with lower speed limits, typically have lower collision rates when compared nationally and the council will continue to review existing speed limits with this in mind.

Across the borough the speed limit is habitually broken. Even driving at the designated speed limit can be inappropriate at times, especially when there is poor visibility. As a rule, 30 mph cannot be considered an inherently safe speed when more than four out of ten pedestrians hit by a vehicle travelling at that speed will die as a result. As well as working to reduce inappropriate speed through engineering measures, the council will work with the police to target speeding offences and also work to change attitudes among drivers and the wider public.

Some concepts of driver behaviour are generally understood to be unacceptable, such as drinking and driving, although that message still has to be constantly reinforced. The need to keep vehicle speed down is not so widely understood and supported. Indeed, enforcing speed controls is sometimes portrayed as persecution of motorists and simply an excuse to raise revenue through fines. Only 2% of all reported collisions[32] in Southwark involve a driver/rider impaired by alcohol, while about 10% of all collisions involve someone who was speeding or driving too fast for the conditions[33]. A significant shift in the way that people perceive speed can only be achieved through a combination of measures.

Vehicles are not only a source of danger when they are being driven or ridden too fast but they are also a danger when they are driven or ridden carelessly, without consideration for other road users and especially when they are being controlled by people under the influence of drink or drugs. Other road users may, of course, increase the level of danger to themselves by not taking care and being unaware of others.

How enforcement works

20 mph zones are designed to be self enforcing according to both the legal regulations and the police. However it may be the case that residents feel there is a speeding issue in a particular area, whether in a 20mph zone or not. If we receive correspondence from residents regarding this issue then we will look into any speed related collisions in the area as well as any data we have on traffic speeds. We will also log the correspondence and review it annually along with other evidence to help us decide where in the borough improvement works are required. We can also pass on details to residents of their safer neighbourhood team or alternatively raise this directly with your safer neighbourhood team and with the ward panel as this body can decide whether an area is a priority for speeding enforcement by the police in setting local policing priorities.

Policy 5.5 - We will make Southwark a 20mph borough.

The council's core approach to reducing road danger is to reduce vehicle speeds. This has been pursued through the introduction of 20mph zones and limits across the borough. The intention is that Southwark be a 20mph borough, so the default maximum traffic speed in the borough would be 20mph[34], with any streets with a higher maximum speed limit being the exception to this rule. In practice, this could mean introducing a physical measure such as a raised pedestrian crossing, junction or side road entry treatment where there are known safety and/or other issues, although we recognise that vertical traffic calming measures may not always be practical and can cause discomfort to some road users. We will also look at other options to achieve speed reduction, such as carriageway narrowing and the use of average speed cameras (once these become more widely available).

[32] Based on data from January 2008 - December 2010, and is the out of all those tested for alcohol.

[33] Based on data from January 2008 to December 2010.

[34] This policy was supported by the vast majority of residents who responded to question 9 of the consultation survey asking 'Should Southwark be a 20mph borough?'

Policy 5.6 - We will seek to create conditions where our roads are safe.

The presence of more pedestrians and cyclists can also have an impact on the perceptions of drivers/riders and influence them to reduce their speeds. In busy active streets, all road users need to take more care and this can lead to reduced vehicular speeds and a safer environments for all. This means that building an environment which facilitates and encourages these activities can have a positive impact on road safety for all users. The council is therefore committed to creating and maintaining high quality active street environments which people can enjoy and where they can travel in comfort.

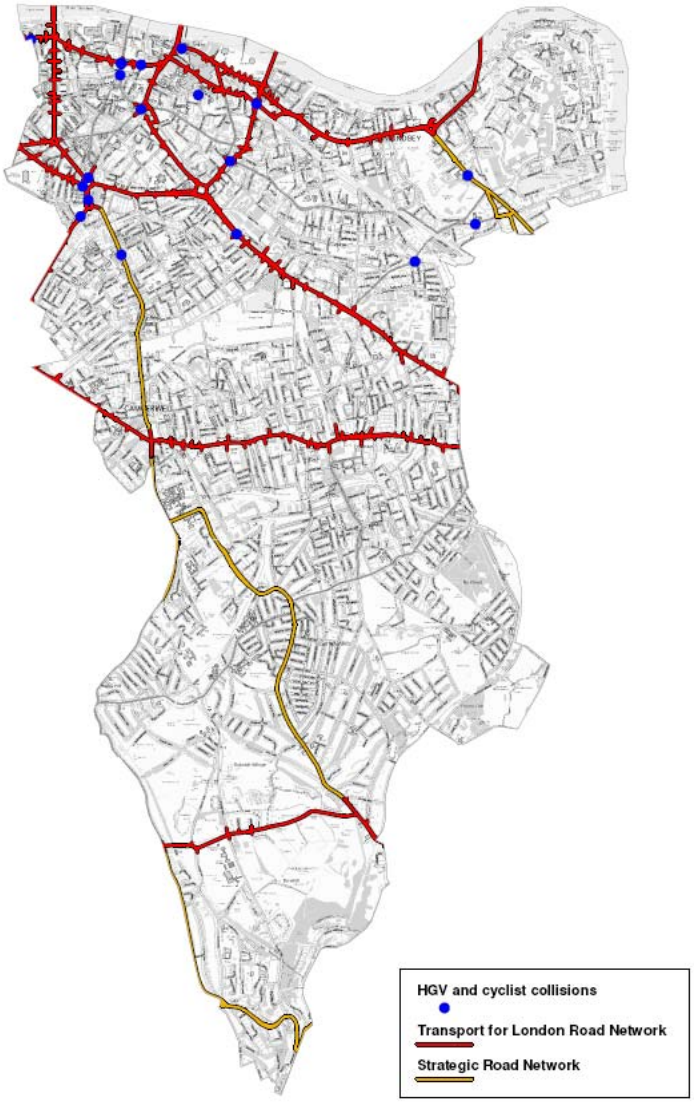
The council fleet is one of the largest in the borough. Awareness training with the council's own fleet of vehicles has recently been undertaken. Driver safety and education is very important and as a fleet operation, the council hopes to set an example of a safe and efficient fleet. The council are also involved in training TfL bus drivers to raise awareness to the specific needs of cyclists. We also hold HGV – cyclist safety, awareness events.

Policy 5.7 - Deliver a coordinated package of road safety training and publicity measures.

The council is working closely with schools, the community and partners to deliver a coordinated package of measures to help educate and inform the public of road safety issues. The council is addressing the potential for conflict between cyclists and heavy goods vehicles (HGVs) at junctions and will continue to undertake publicity campaigns at routes used heavily by HGVs to educate both cyclists and drivers. HGV and cyclist events involve putting HGV drivers on a bicycle and cyclists in the seat of an HGV. In cyclist only events, police officers go out to designated areas in the borough and invite cyclists to take the seat in the cab of a lorry. They then cycle along the side of the lorry and position themselves in front of the lorry, highlighting to the cyclist the restricted visibility from inside the cab.

The following figure shows that collisions involving cyclists and HGV (over 7.5T) generally occur on the TLRN and the SRN, although there are exceptions to this.

Figure 21, Heavy goods vehicles and cyclist collisions (Jan 08 – Dec 10)



Source: Department for Transport

Road safety events engage with a variety of road users, helping them to be aware of each other's vulnerabilities and improve safety on the roads. We hope that these interventions will create a step change towards safer behaviour for all road users and help us succeed in reducing road casualties.

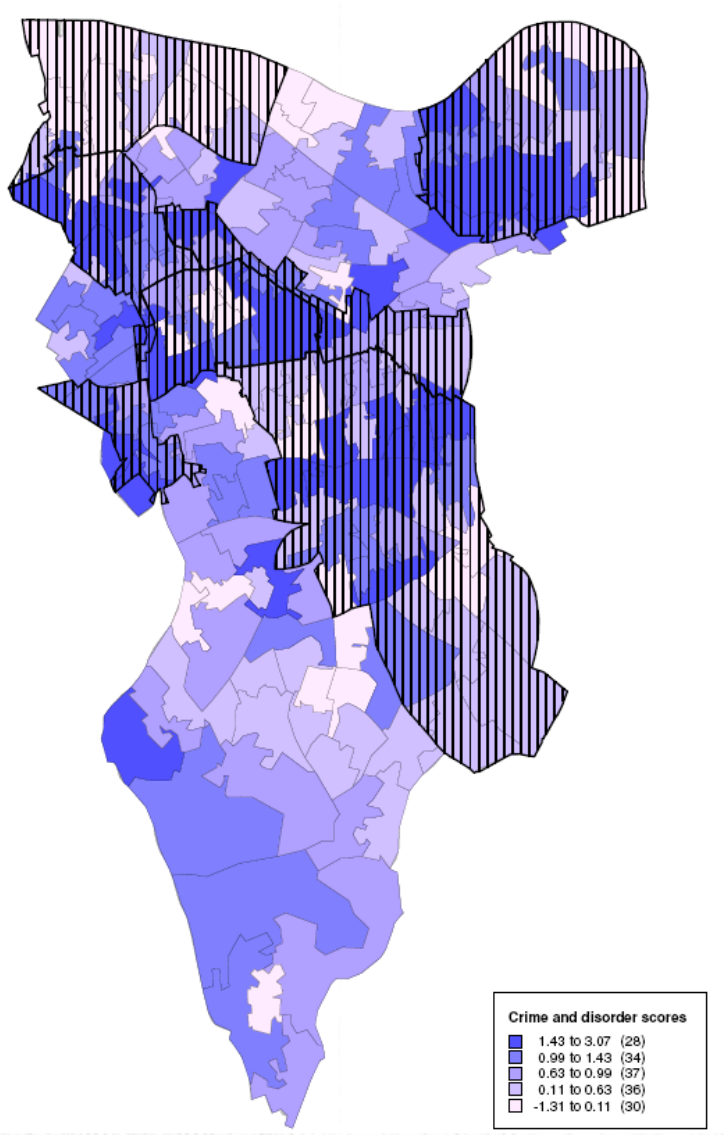
Policy 5.8 - Improve perceptions of safety in the public realm.

Every one deserves to feel safe travelling whether that is walking to shops or on the public transport network. Creating and maintaining a safe environment is extremely important as people who live in, work in or visit the borough have a right to expect that they can move about without unreasonable concern for their safety. Inconsiderate and antisocial behaviour can have a significant impact on people's perceptions of safety and on their journey experience and can create a sense of unease and increased fear of crime.

Community warden schemes provide a highly visible, reassuring presence, which helps to reduce crime and anti social behaviour. The wardens also tackle anti social behaviour through education and working closely with the community, officers from the council, the Metropolitan Police and the London Fire Brigade to create a safer borough.

The following figure shows the areas of opportunity as identified in the local development framework where significant regeneration is taking place. This regeneration enables the borough to design out crime when developing the highway network and public space.

Figure 22, Development areas and indices of deprivation (crime)



Recent studies have looked at the ways that road users interact with their environment and how the design of the public realm can promote better behaviour and safer roads. By creating a quality street environment and improving the way a place feels, a positive shift towards safer roads can be made.

Delivering objective 5: Ensure the transport network is safe and secure for all and improve perceptions of safety	
Actions to deliver this objective	Produce a calendar of road safety events
	Deliver a coordinated package of measures to help educate and inform the public of road safety issues
	Promote safety to commuter cyclists
	Support the police to in taking action against speeding traffic
	Work with TfL to reduce collisions on the TLRN
	Implement 20mph borough
How we will measure that we are meeting this objective	Reduce the number of all casualties by 33% by 2020
	Reduce the number of killed and seriously injured by 33% by 2020
	Reduce the total number of slight casualties by 33% by 2020
	Reduce all cyclist casualties by 44% by 2020

Objective 6: Improve travel opportunities and maximise independence for all

When people travel they want their journey to be as convenient, safe and comfortable as possible; accessibility holds the key to achieving this. If the destination, transport mode or environment is perceived to be inaccessible to certain groups or people it may re-enforce those inequalities and prevent people becoming active citizens.

Being a disabled[35], mobility impaired or elderly person can inhibit everyday activities including travel. One in four households in Southwark report at least one member with a health problem that may affect their ability to travel[36]. Beyond specific groups with particular mobility issues, accessibility improvements can benefit the entire community, including people with dependants and parents with young children. We are all likely to benefit from such improvements at some stage in our lives.

Over the last few years there have been many improvements to accessibility in the borough. Examples include dropped kerbs and tactile indicators at road junctions and pedestrian crossings, wheelchair accessible buses and black cabs and disabled persons parking bays. Nonetheless, there is need for improvement in ease of access to key services for those with disabilities, with a recent survey showing low levels of public satisfaction in this area[37].

By improving the accessibility of the transport network and increasing people's confidence in using the transport system we will help to deliver locally the Mayor of London's Transport Strategy goals of enhancing the quality of life Londoners and improving transport opportunities for all Londoners.

Policy 6.1 - Make our streets more accessible for pedestrians.

Getting around the borough is not always as easy as it should be for pedestrians. Pavements, parks and other public places sometimes have obstacles and hazards which make life difficult for everyone, but particularly those with impaired mobility. Examples include unnecessary street clutter, restricted crossing opportunities, poor signage, and a lack of seating.

We need to plan and manage space on our streets well to achieve high levels of accessibility. This involves making sure there are no unnecessary obstructions or items that detract from the streetscape. For example, pavements can be blocked as a result of businesses placing advertising signs on them, or traffic signs may be mounted on separate poles when they could be combined. At the same time there may be a lack of essential street furniture such as seating. The council's emerging Streetscape Design Manual contains full details of our approach to street design[38].

An accessible street environment requires an appropriate level of priority to be given to pedestrians, particularly at junctions and where people wish to cross the road. Signalised junctions and crossings with a green man phase in Southwark conform to the current standards providing tactile paving, audible green man tone and a rotating tactile cone below the push button. Not all such junctions in the borough have a green man phase, however, and in some cases this can make it difficult to cross the road in

35 According to the Disability Discrimination Act 1995 a disabled person is defined as someone 'who has a physical or mental impairment which has a substantial and long-term adverse effect on his ability to carry out normal day to day activities.'

36 Southwark Housing Requirements Study, Southwark Council, 2008

37 The 2010 NHT Network Public Satisfaction survey which identifies what the public think about issues such as accessibility, public transport, walking and cycling, congestion, road safety and highway maintenance/ enforcement. This was the first year that the council has taken part in this survey.

38 Southwark Streetscape Design Manual: Consultation draft, Southwark Council, 2011

safety and comfort. Where this is the case we would like to see a green man phase introduced. Further improvements that can increase accessibility at junctions include changing signal timings to give more time to pedestrians and reducing traffic speeds on the approach.

Away from 'formal' crossing points (traffic light or zebras) there are many informal crossing points on our streets. Where there is evidence of informal crossing taking place it is better to support this with appropriate infrastructure rather than to try to deter it – provided this can be achieved safely. We need to provide safe, accessible 'informal' crossing opportunities wherever possible to increase pedestrian accessibility. We also need to make sure that 'dropped' kerbs are conveniently located at regular intervals to make our pavements fully accessible.

Finally, we need to keep our streets in a good state of repair to achieve high levels of accessibility for pedestrians. Overall, public satisfaction levels with pavements and footpaths in Southwark have been found to be high[39]. The accessibility of the highway network is one the performance indicators we use to evaluate the condition of our streets in relation to maintenance schedules. The council's maintenance approach is set out in the Highway Asset Management Plan.

Policy 6.2 - Improve access to public transport.

Unless all bus stops along a bus route are equally accessible, passengers may be unable to board or alight from a bus at their desired location and the potential benefits and service reliability will be compromised. Southwark has a good record of providing accessible bus stops, with the vast majority of the 578 stops in the borough now fully accessible. It may be the case that due to issues such as gradient, a handful of stops may not be able to be brought up to the required standard.

Rail infrastructure delivered in recent years, such as the Jubilee Line extension, provides a fully accessible service. There remain, however, access limitations at a number of underground and rail stations, including key interchanges such as Peckham Rye. Provision of fully accessible interchanges is essential to improve travel opportunities for many members of the community who may otherwise be excluded and the council would like to see all stations made fully accessible as soon as possible. We do not have control over the station improvement programme, but where the opportunity arises we can deliver complementary improvements, for example where step free access is being implemented. The council has worked closely with Network Rail to co-ordinate delivery of improvements to the streets around Denmark Hill station in advance of the installation of lifts to make the station accessible to all.

Policy 6.3 - Support independent travel for the whole community.

The provision of a fully accessible environment will not in itself be sufficient to deliver equality of opportunity for all members of the community. As well as physical barriers to mobility some people experience difficulty using public transport for other reasons, such as a lack of confidence or inability to find their way around easily. In response to this, the council works together with schools and colleges to provide independent travel training to help support people with physical disabilities and special educational needs. For example, training and support can enable more people to use public transport. Provision of this training helps people to live as independently as possible and to take part in everyday activities, as well as giving them greater freedom with less reliance on friends and family.

39 **2010 NHT Network Public Satisfaction survey**

Policy 6.4 - Promote door to door transport services for residents with mobility difficulties.

Some members of our community will not be able to use mainstream public transport services and a wide range of alternative options are supported by the council and local transport operators.

TfL regulates taxi and private hire trade in London and ensures that all 20,000 black cabs are accessible for wheelchair users. Southwark has a thriving community transport service operated by LaSCoT (Lambeth and Southwark Community Transport). It provides safe, low cost, accessible minibus transport for a wide range of community organisations, from under fives groups to over 60s clubs, faith groups, sports clubs and disability groups. The vehicles can be provided on a self drive basis, with accredited training provided to community group members to drive them safely, or they can be provided with a driver. Vehicles can be used from as little as an hour up to a number of days, enabling vehicle use to be maximised.

Dial a Ride provides door to door transport in tail lift equipped vehicles for people who are unable to use public transport. The service is operated by TfL. Taxicard is a scheme of subsidised taxi travel jointly funded by Southwark Council and the Mayor of London. Capital Call is a complementary scheme to Taxicard, funded by the Mayor of London. It enables people with disabilities to use subsidised licensed minicab transport in eleven London boroughs, where there is a shortage of black cabs. Capital Call is available to all registered Taxicard users in Southwark and enables them to book trips up to a total value of £200 annually. Users contribute £1.50 per trip, for trips up to £11.80 in value.

Policy 6.5 - Provide essential parking for residents with mobility difficulties.

For disabled people who rely on their own cars the availability of parking can crucially affect their ability to work and socialise. The council therefore recognises the importance of providing appropriate parking places at the origins and destinations of journeys.

On street disabled parking bays may have a maximum stay placed upon them to encourage turn over of space and discourage all day disabled parking that may prevent other visitors using the bay. Through the planning process, wherever possible we ensure that disabled persons parking places are included in all new developments.

Delivering objective 6: Improve travel opportunities and maximise independence for all	
Actions to deliver this objective	De clutter our streets
	Provide safe informal crossing points with dropped kerbs.
	Provide a rapid response to repair or safeguard damaged pavements
	Improve our bus stops to make them fully accessible
	Co-ordinate improvements on streets around stations undergoing accessibility improvements
	Ensure people have the skills to travel sustainably through practical training such as cyclist, pedestrian and independent travel training
	Support the door to door transport services for those people who are unable to use mainstream public transport.
	Install home (origin) and destination disabled parking bays in key destinations
How we will measure that we are meeting this objective	Increase the walking mode share in Southwark to a third (33%) by 2013

Objective 7: Ensure that the quality, efficiency and reliability of the highway network is maintained

Ensuring our highway network is fit for purpose is one of the borough's greatest challenges and responsibilities. The highway has many functions from moving people and goods, to supporting the local economy through servicing, parking and hosting street markets as well as being a social space. The continued management, maintenance and improvement underpins the successful delivery of the council's ambitions of improving transport in Southwark.

The council's Highway Asset Management Plan (HAMP) sets out how we intend to make the best use of limited resources available to keep our streets in a good state of repair. This includes how we prioritise planned improvements and the response the public can expect when defects are identified. The HAMP requires investment decisions to be based on users' needs and for the type of intervention to take into account value for money over the whole life of the asset. For example, we will consider at what point it makes sense to reconstruct a carriageway, rather than simply to make it safe with shorter term measures such as filling in pot holes.

Ensuring that the quality, efficiency and reliability of the highway network is maintained will help to locally deliver the Mayor of London's Transport Strategy goals of enhancing the quality of life for all Londoners, improving safety and security of all Londoners and improving travel opportunities of all Londoners. Delivering this objective is particularly important in helping the Mayor to achieve his goal to support the delivery of the London Olympic and Paralympic Games and its legacy.

Policy 7.1 - Maintain and improve the existing road network making the best use of it through careful management and considered improvements.

Southwark's network is diverse both in its usage and complexity, supporting central London activities to the north of the borough and the suburban area to the south. There is a finite amount of road space available on our roads and in managing the needs of all users the council must consider how best to use this space. It is neither feasible nor desirable to increase capacity for private motor vehicular traffic on our streets. The council's Network Management Duty takes into account a range of factors and makes it clear that securing the expeditious movement of traffic should never be at the expense of safety or to the detriment of vulnerable road users. Attention is to be made in particular to pedestrians, cyclists and motorcyclists.

The council has developed three hierarchies; the road user hierarchy, the road hierarchy and the parking hierarchy to assist in balancing the, at times, competing demands on the road network.

The road user hierarchy assists us in considering the needs and experiences of all road users, the street space they utilise and the need for improving the environment for our residents.

Table 15, The road user hierarchy

Pedestrians
Cyclists
Public transport and community transport
Freight vehicles
Taxis
Powered two wheelers (PTWs)
Private cars

The road user hierarchy is not about one group's interests dominating another's but should be utilised as a guide in striking the balance between the different users. For example, in the choice of benefiting 100 pedestrians and disbenefiting 100 cyclists or 100 motorists we would choose to benefit the pedestrians.

Complementing the road user hierarchy, all roads in Southwark are categorised in the road hierarchy, which reflects their purpose, level of importance for traffic movement within and through the borough and role within the overall road network. The frequency of safety inspections as part of our maintenance regime is guided by the road hierarchy, with more frequent inspections for borough roads that rank highly.

Table 16, The road hierarchy

Transport for London Road Network	Classified A roads owned and managed by TfL
Strategic Road Network	Management of the strategic road network forms part of the overall network management programme with the additional requirement to gain the appropriate approvals from TfL
Borough principal road network	Classified A roads and busy bus routes, these roads provide links to the TLRN for journeys between boroughs and access to town centres
Non principal B roads	Roads primarily used as distributor roads for buses and heavy goods vehicles and for local journeys
Non principal C roads	Local distributor roads for movement within the borough between B distributor roads and the principal roads
Unclassified local roads	All other roads in the borough with a local function including access to adjacent land

Vehicles should travel on roads appropriate to their purpose; local residential roads are not to be used as distribution routes and the council will continue to work to identify rat running and provide measures to prevent it where possible.

The third hierarchy specifically focuses on road space and its use to support parking. The parking hierarchy prioritises the needs of the local community over those driving into local areas as well as provision for essential and sustainable vehicles over private motor vehicles.

Table 17, The parking hierarchy

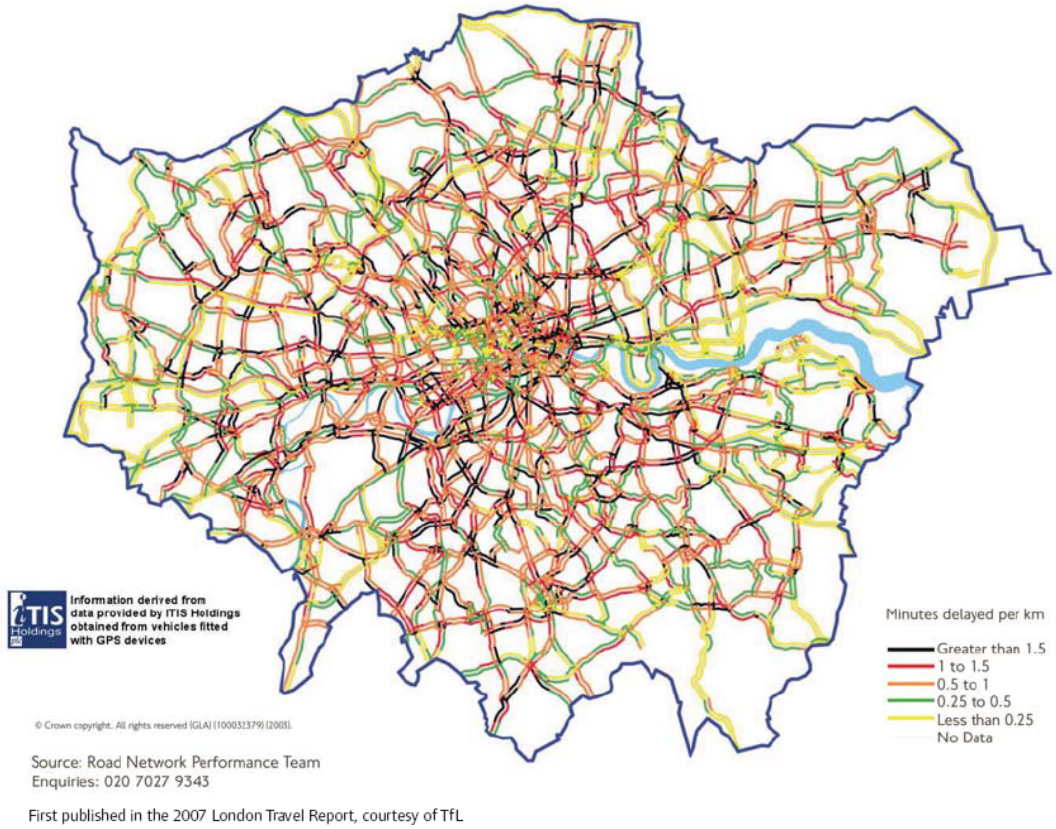
Road users	Local disabled resident parking need (parking at origin)
	Non local disabled parking need (parking at destination)
	Car share and car club bays
	Local resident parking
	Building contractors, appliance repair and other tradesman services
	Essential worker in the delivery of public service and carers
	Local business essential parking/servicing need
	Short stay shopper/visitor parking need
	Long stay shopper/visitor parking need
	Long stay commuter parking need
Vehicle type	Emergency vehicle
	Cycle
	Bus
	Public service vehicle including managed levels of short term coach parking
	Taxi
	Shared/pool car
	Cleaner/greener private car
	Private car and powered two wheeler

The council's Network Management Policy (NMP) will provide more detail on how we manage the transport network and traffic that uses the highway network and the assets that comprise the highway network. This plan will consider the causes of congestion and other disruptions to traffic movement on its road network both currently and in the future, and consider possible actions or mitigation.

Southwark's highway network carries a substantial volume of traffic, particularly in the peak hours. The highest daily traffic flows generally occur in the northern section of the borough on roads such as the inner ring road comprised of Kennington Lane, the Elephant and Castle, New Kent Road and Tower Bridge Road, Old Kent Road, Jamaica Road and the Rotherhithe tunnel and Blackfriars Road and London Bridge. Although these roads are all part of the TLRN, the council remains reliant upon these key roads to facilitate and distribute traffic.

This high demand means that sections of the borough experience significant congestion .The borough experiences delay in key areas including access to the Rotherhithe Tunnel, Tower Bridge, Peckham High Street and Old Kent Road.

Figure 23, Morning peak road network congestion[40]



Road congestion leads to delay, poor reliability and low network resilience. Traffic congestion impacts on economic productivity, adversely affects Londoners' quality of life, causes frustration to road users, contributes to a deterioration of air quality and leads to higher CO_2 emissions. Poor reliability and predictability of journey times means those who use the road network have to allow significantly longer for their journeys to ensure they reach their destination on time. As pressure grows on the highway network traffic conditions will continue to present a challenge in maintaining reliability.

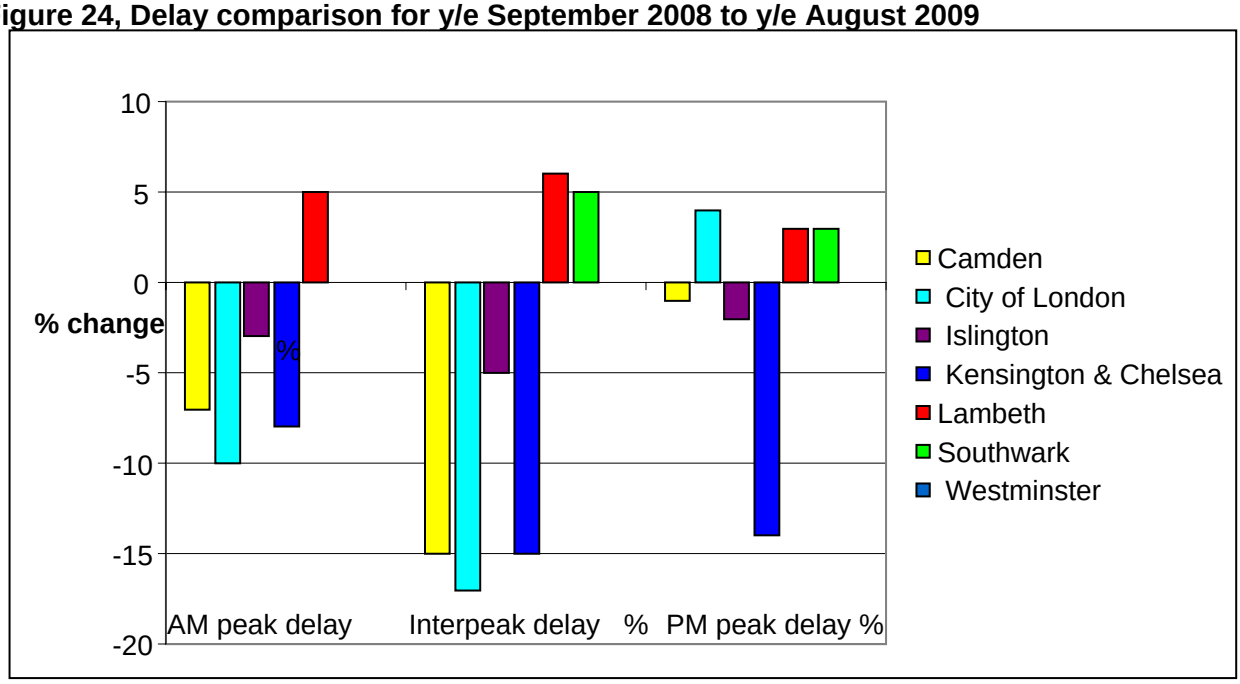
Journey time reliability is a key concern of road users. Journey time reliability is defined as the proportion of traffic which, for a 'typical' 30-minute journey, takes less than 35 minutes (a representative average journey time of 30 minutes plus a five minute 'allowance').

The following table shows equivalent delay data for inner London boroughs, comparing two recent years[41]. The table compares both speeds and delays across three time periods of the working day (morning peak, inter peak and afternoon peak). This shows that Southwark experienced increases in delay in comparison to other inner London authorities in the interpeak and evening, possibly due to the level of construction and utility works during this period. A nil change has been experienced in the am peak.

[40] Excess delay is calculated by comparing average traffic speeds recorded on roads on TfL's Network of Interest (NOI) during the time period in question with overnight speeds, which are assumed to be unconstrained by other vehicles. The difference between the two averages is the excess delay brought about by traffic congestion during the time period in question, expressed in terms of minutes per km.

[41] Academic years

Figure 24, Delay comparison for y/e September 2008 to y/e August 2009



Source: Central sub regional plan, challenges and opportunities

Journey time reliability varies by the mode of transport taken, there is a great variation for pedestrians, cyclists, public transport and motor vehicles. The use of the road and road user hierarchy helps the borough assess the right approach for the right road. In general pedestrians and cyclists have greater journey time reliability, with bus priority measures supporting improved bus journey time reliability.

Policy 7.2 - The borough will prioritise improvements for buses in areas where they experience delays[42].

Southwark has a high level of bus patronage and buses in Southwark are generally reliable, and rarely suffer significant delays. It is therefore crucial that this level of service is kept and the council will continue to lobby TfL London buses to improve bus service frequencies, journey times and reliability on the borough's increasingly crowded bus network. TfL carry out bus service reviews in conjunction with the operators and boroughs. These service reviews are carried out to ensure that each route provides the most effective service for passengers and can address gaps in the network as well as delays.

It is recognised that mitigating traffic congestion in Southwark is very difficult, for a number of reasons

- The level of strategic through traffic with origins and destinations outside the borough
- The physical space constraints on many over loaded traffic junctions in the borough
- The lack of feasible alternative routes for traffic
- The volume of large vehicles on the road network, including HGVs and buses
- The extent of subterranean utility related infrastructure, resulting in increased costs associated with undertaking road works

[42] In the Transport Plan consultation survey 87.9% of people supported prioritising buses over general traffic and of these, the majority of these were regular bus users.

Historically these difficulties have led to a more response based approach to highways planning in the borough, with the focus on attempting to deal with localised issues rather than formulating a strategic long term approach to traffic management. The development of the borough's NMP seeks to address this by providing a comprehensive toolkit including policies and procedures related to core areas of network management. It demonstrates how day to day functions such as street works, coordination, events, licensed activities, collisions, contingency planning, road closures and parking are managed. Highways surfacing investment is planned taking into account the function of a particular street, including whether it is a bus route.

Policy 7.3 - Manage access to our town centres ensuring that servicing activity can be carried out safely and efficiently.

Congestion on the network may impact on the ability of the economy to operate efficiently and the potential for people to live and work in the borough. For example, small businesses may suffer if deliveries and potential customers are delayed or deterred from reaching them.

One the greatest areas impacted by congestion and poor journey time reliability is the freight industry, this can include deliveries for town centres, waste collection and construction traffic. The forecasted population and employment growth will lead to growth in freight traffic due to increased demand for goods, waste removal and other essential services and materials. Currently, in the central activity zone, freight makes up 25% of the kms travelled, whereas across London, freight accounts for only 17% of kms travelled. Road freight, currently 89% of London's freight by tonnage, is expected to grow to meet the demand from London and the rest of the country.

In addition, the number of vans (LGVs) is forecast to grow by 30% between 2008 and 2031 with some growth in HGV activity. This is being driven by a change in consumer behaviour with an increase in home deliveries.

To support businesses and our town centres, through the planning process, we will request service management plans to demonstrate that enough space for servicing, circulation, and access to and from the site is provided.

For all freight, a balance must be found between supporting the delivery of goods and services and maintaining residential amenity. A balance can be found between protecting residents and relaxing curfews for a range of locations and delivery types. Supporting out of hours delivery[43] with appropriate routing and noise controls (such as noise dampeners) may have a role to play in reducing congestion and pollution for the borough and improved operational efficiency for the retailer. We will support the freight and service industry in developing best practice in quiet delivery technology and techniques and consider its implementation where appropriate.

[43] The Transport Plan consultation survey revealed that the majority of respondents would support night time deliveries to help congestion on the roads

Home delivery

Whilst home deliveries also involve vehicles they can cut overall congestion on the roads. For many people shopping is one of their main uses of the car so cutting this out may make them consider giving up the car. A study written in 2005[44] looked into this issue and stated that at the time of writing, car travel for food and other household items represented about 40% of all UK shopping trips by car.

Southwark encourages home deliveries whenever possible, for example by requiring new residential developments to include facilities for deliveries to be left. The council also encourages sourcing from regional suppliers (reducing distance travelled) and better planning of deliveries for example to reduce vehicles returning long distances to depots after making only one or two stops The council also encourages companies to consider alternative fuels.

Policy 7.4 - Actively work with private contractors to ensure sites are safe and works are completed without undue delay with adequate provision made for the needs of all road users.

Temporary road works not only have the potential to cause inconvenience by disrupting traffic flows, they can potentially be a risk for certain road users such as pedestrians and cyclists. Whilst the council has a duty to coordinate all temporary works, where private contractors are involved responsibility to ensure such sites are safe rests with the companies carrying out the works.

In 2009 Southwark signed up to the London Permit Scheme. This pan London system gives authorities greater powers to regulate and monitor works on the highway. Utility companies/contractors including the council's own contractors that wish to carry out an activity in a road or street seek approval to undertake works through a formal permitting arrangement.

When works are undertaken current legislation only permits the council to inspect a random 10% sample of such sites, though if a potentially unsafe site is separately brought to the council's attention it is fully investigated to guarantee remedial measures are taken where necessary. This ensures works are undertaken with the minimum of disruption and to the highest possible safety standards.

Given Southwark's river frontage, river freight using the Thames should be considered in order to reduce freight on road. However most of the piers in the borough are located in residential areas and so in many instances it would be inappropriate to use these for the onward transfer of river freight to road freight.

However there are instances where it is appropriate to use the river. To construct the new station entrance at Blackfriars, Network Rail will carry up to 70% of materials on the river. This will include over 14,000 tonnes of materials to build the station's new bridge deck, longer platforms and a roof spanning the river. At the same time, more than 8,000 tonnes of deck and pier demolition will also be removed. Not only does the river allow Network Rail to bring more materials to site more efficiently, it also reduces the impact on the highway network and deliveries can be quieter.

[44] Delivering supermarket shopping: more or less traffic? Sally Cairns, 2005 ESRC Transport Studies Unit, University College London, London, UK

Policy 7.5 - Enforce parking regulations firmly but fairly.

All road users have a duty of care to respect others and behave responsibly. As well as respecting the rules of the road and complying with traffic regulations, this means showing consideration of the needs of others, at all times. Unfortunately, there are some people who do not use the highway network as they should and therefore the council along with key partners such as the police need to ensure that the appropriate action be taken.

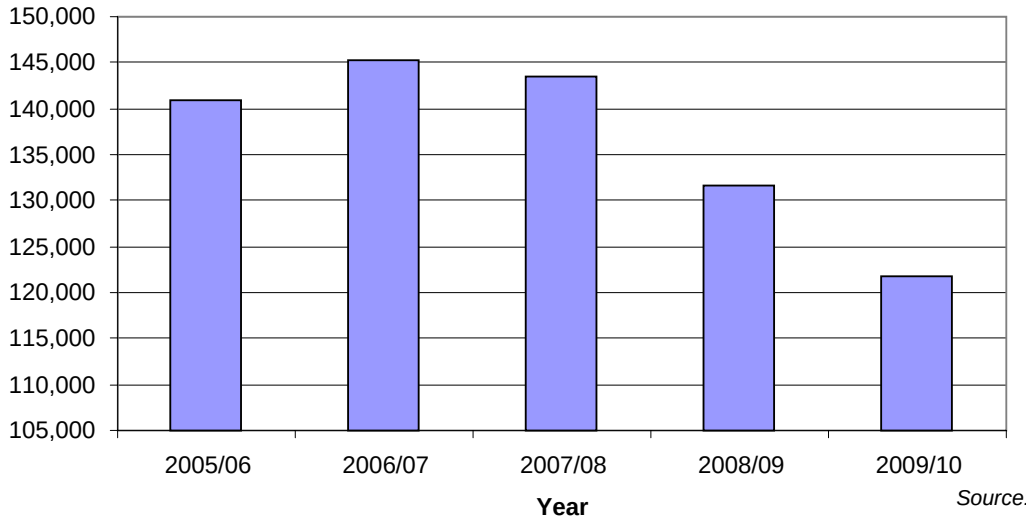
Parking controls are there to improve safety, accessibility, servicing and the flow of traffic and are a method of ensuring the appropriate use of the highway network. Enforcement activity is pitched at a level which is intended to keep traffic moving, avoid frequent obstructions and safety hazards, and encourage adherence to the regulations.

Under the current enforcement contracts council officers work closely with the contractors to target key locations and categories of contraventions, this intelligence led approach means that the council and our partners are able to change the way enforcement is delivered on a day to day basis. Priorities are set in a way that systematically relates them to council's wider transport objectives. Examples of where focused enforcement action takes place are:

- Cycle lanes;
- Parking at school gates;
- Abuse of disabled parking bays;
- Regular large gatherings for social, religious or leisure events;
- Localised difficulties resulting from particular business activities
- Major construction works

In recent years there has been a marked downward trend in the number of penalty charge notices (PCNs) issued in Southwark. From a peak of 145,296 in 2006/07 PCNs issued fell by 8% to 121,761 in 2009/10. This reflects a wider trend across London. This trend may be partially attributed to reduced economic activity due to the impact of the recession, but also to improved compliance (evidenced by increases in paid for parking) linked to more effective enforcement activity, including the increased use of CCTV.

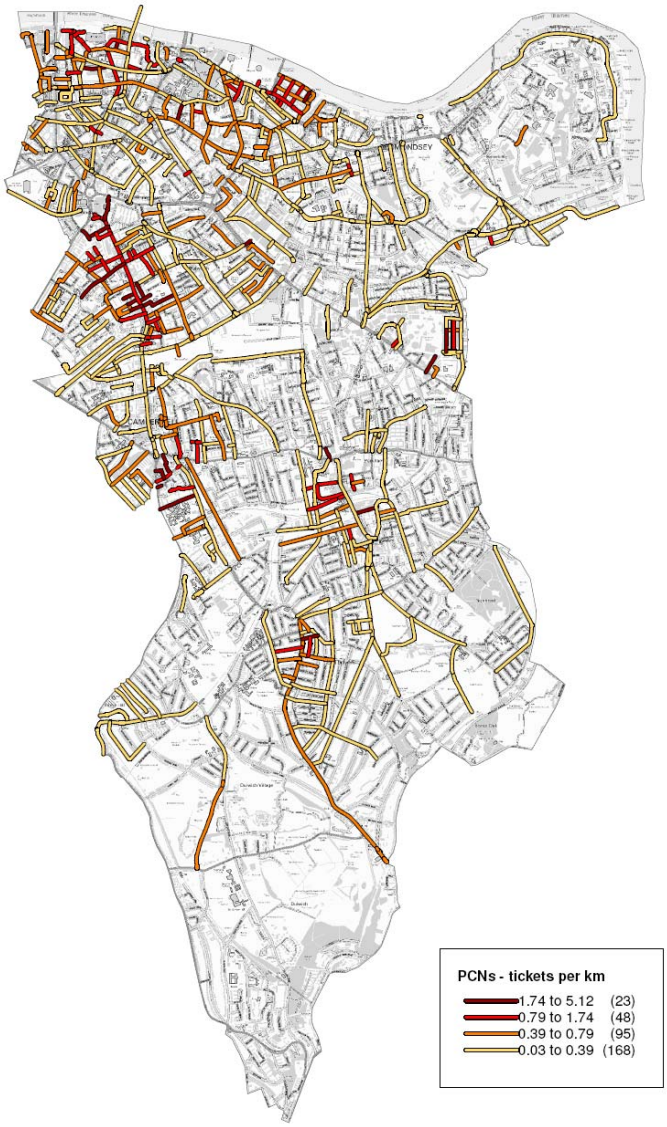
Figure 25, Southwark total PCNs



Source: Southwark Council

General parking and traffic PCNs can be mapped in terms of 'hot spots'. This gives an indication of key corridors where significant parking contraventions are taking place and provides a valuable tool for understanding parking pressures. As shown on the following figure, points of stress include the Lordship Lane / Denmark Hill / Camberwell Road / Walworth Road corridor as well as Peckham town centre and the commercial district in the north of the borough.

Figure 26, PCN hotspots 2010/11[45]



Source: Southwark Council

As well as parking enforcement, the council now has the power to enforce against a number of 'moving traffic offences'. This covers offences relating to banned turns and manoeuvres, such as U turns. By selective use of enforcement through mobile CCTV cameras the level of these offences can be reduced considerably.

Much of the enforcement activity described above is designed to protect vulnerable road users, but this does not imply that those users are exempt from the rules of the road or from being expected to behave appropriately and considerately. For example, while cyclists should have a reasonable expectation that enforcement action will be taken against motorists infringing cycle lanes and advanced stop areas they themselves should be the subject of enforcement action if they go through red lights or ride on the pavement.

---

[45] PCNs recorded in the 2010/11 financial year, looking only at streets where more than 50 were issued by the council's civil enforcement officers in that year

Policy 7.6 - Keep the highway in a good state of repair.

Everyone who travels in Southwark is affected by the condition of the road network at some stage of their journey. The council's policies contained within the council's Highway Asset Management Plan (HAMP) ensure that the limited resources available can be used most effectively to keep our assets in a good state of repair or safe and in the best state of repair possible with available resources.

As well as the structure and surface of the roads themselves the plan includes street furniture, lighting, drains, signs and markings and other highway structures such as bridges and walls. These help people travel safely and find their way around so it is of the utmost importance that all elements are maintained in a good order. For example, yellow lines and parking restrictions contribute to protecting other road users by designating where it is and is not safe for vehicles to be.

Reactive maintenance is carried out in response to the council's planned inspections regimes and from ad-hoc reports received by the council. Such defect repairs tend to be small in nature and implemented within 24 hours for emergency work (when an issue of safety or potential hazard to property has been identified) or 28 days for lesser defects, subject to budget availability.

Each year, the council surveys and inspects the roads in the borough, including lighting and street furniture, and provides maintenance programmes for servicing, cleaning and repairs. The inspections identify where routine maintenance is required and form part of the selection criteria for identifying which roads should be prioritised for renewal. The forward planning and targeting of investment in the highway network is crucial in minimising whole life costs. For annual investment in each asset item it is essential that the selection of individual schemes (or asset item being replaced) is made on the basis of need, i.e. the condition of the asset. A strict prioritisation process ensures that the asset with the worst condition is selected first for renewal.

When carrying out any major improvements the council will remove trip hazards, install dropped kerbs where needed and ensure that levels of lighting on the road are to a safe and high standard. This benefits all road users and makes an important contribution to achieving our road casualty reduction targets.

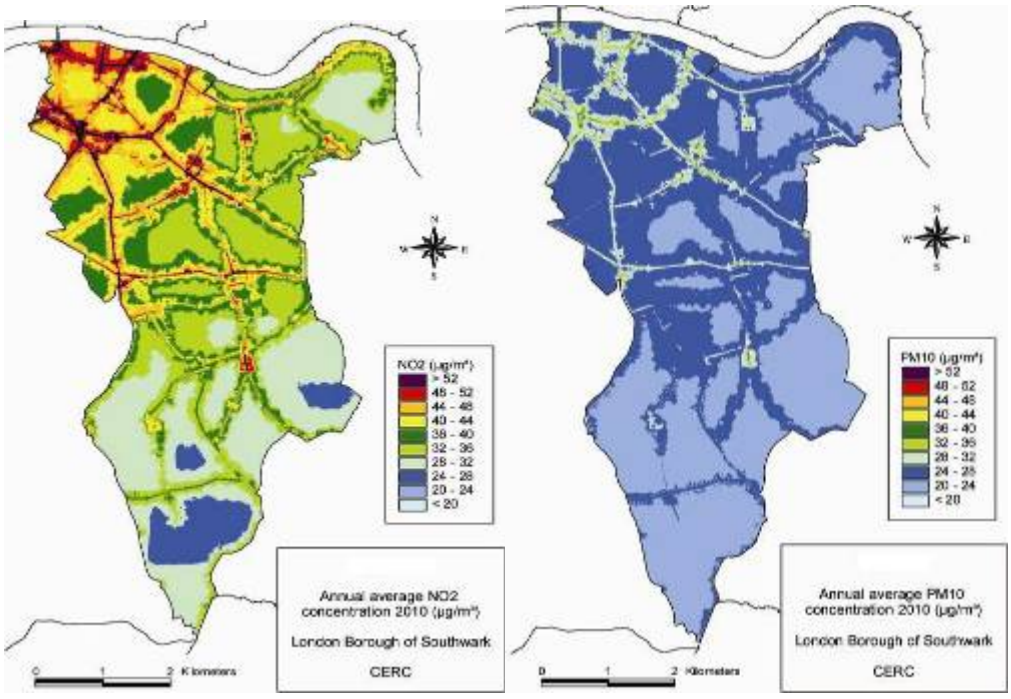
Delivering objective 7: Ensure that the quality, efficiency and reliability of the highway network is maintained	
Actions to deliver this objective	Deliver any changes to the highway network in accordance with the road user hierarchy
	Maintenance of roads and streets in accordance with Highway Asset Management Plan
	Manage our road network and work with TfL to help smooth traffic in accordance with the road user hierarchy.
How we will measure that we are meeting this objective	Excess wait times for high frequency bus services from 1.2 minutes to 1.0 minute in 2013/14
	Maintain the proportion of principal road length in need of repair at 11.1% by 2013/14

Objective 8: Reduce the impact of transport on the environment

There is a clear link between air quality and transport, in particular road traffic. In a typical year, airborne pollution will have a far greater impact on the health of Londoners than the impact of road collisions or homicides. A recent report estimates that fine particles from combustion sources, including transport, had an impact on mortality equivalent to 4,267 deaths in London in 2008[46].

Emissions from road transport are the primary source of both NO_2 and PM_{10} in Southwark and London as a whole. Exposure to NO_2 and PM_{10} can affect the function of lungs, especially in children and among people with underlying respiratory conditions. The following figure shows NO_2 and PM_{10} concentrations predicted for Southwark for 2010 and the impact of busy roads on air quality.

Figure 27, NO_2 and PM_{10} emissions predicted for 2010



Source: Cambridge Environmental Research Consultants (CERC) www.cerc.co.uk

Emissions from transport also make a significant contribution to climate change. The anticipated impacts of climate change, in part as a result of these emissions, such as higher temperatures and reduced rainfall, are likely to exacerbate air quality issues in the future.

Carbon dioxide (CO_2) is a primary cause of climate change and transport represents 28% of the UK's carbon emissions. Southwark has high overall CO_2 emissions compared to other London boroughs, although the percentage from transport is relatively small[47].

When considering interventions, the impact on both air quality and climate change emissions needs to be considered to ensure that that measures to improve one do not worsen the other. For example, proposals to allow diesel cars with low CO_2 emissions into the congestion charging zone free of charge could exacerbate local air quality issues due to higher NOx emissions.

[46] Estimation of Health Impacts of Particulate Pollution in London , Greater London Authority, June 2010

[47] London Energy and Greenhouse Gas Inventory (LEGGI).

Through reducing vehicle usage levels, promoting cleaner fleets and eco driving and undertaking enforcement action on idling vehicles we will help to reduce the impact of transport on the environment. Therefore by delivering this objective we will help to deliver the Mayor's Transport Strategy goals of enhancing the quality of life for all Londoners and reducing transport's contribution to climate change and improving its resilience.

Policy 8.1 - Seek to reduce overall levels of private motor vehicle traffic on our streets.

The most straightforward intervention to reduce harmful emissions from road traffic is for people to reduce private car use in favour of public transport, walking and cycling. The council's draft Air Quality Strategy and Action Plan (AQSAP) details how we will make air quality a priority across council departments[48]. The Transport Plan and the AQSAP share the common goal of reducing emissions from motor vehicular transport.

Such a change will bring benefits from both air quality and climate change perspectives. While road traffic levels depend on many factors, not all within the council's control, they are something we can have an influence over, unlike other sources such as aviation and rail. Furthermore, recent trends suggest that reductions are possible; emissions from road transport in Southwark dropped by 6.6% between 2005 and 2008[49].

The Transport Plan contains many measures that can help achieve this goal, from improved pedestrian crossings to the provision of cyclist training. All these measures combined can influence the way we travel, although we recognise that wider regional and national factors will also play a critical role.

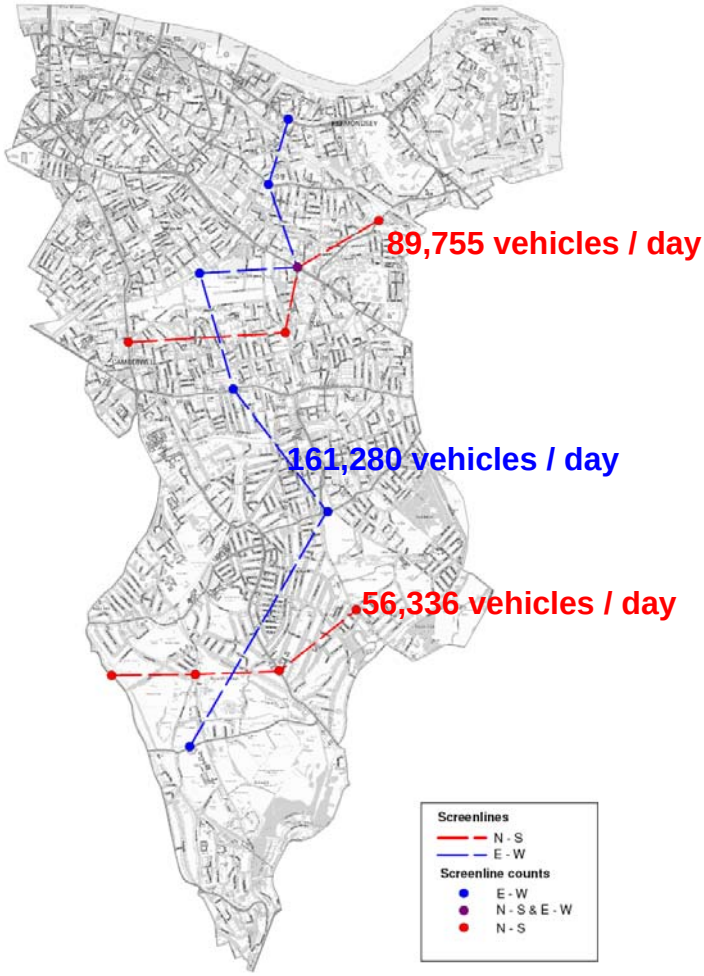
Although traffic levels do not directly equate to air quality, we know as a general rule that if traffic volume increases, harmful emissions will also increase. On this basis, traffic volume across the borough will be used as a proxy for air quality. This approach will complement our existing monitoring stations on the Old Kent Road and at Elephant and Castle which will continue to collect information on actual air quality in terms of NOx and PM_{10}.

We have recently established a set of traffic count locations where we will carry out repeat counts year on year to allow us to measure changes over time. These locations have been selected to form north south and east west 'screen lines'. Our current estimate of traffic crossing these screen lines is shown in the figure below.

[48] Draft Air Quality Strategy and Action Plan, Southwark Council, 2011

[49] NI186 data, Southwark Council 2010

Figure 28, Annual screenline programme



Source: Southwark Council

Repeating the counts that make up each screenline on an annual basis will allow us to measure overall traffic trends in the borough and measure our success in reducing overall flows and hence air quality and climate change impacts.

We also need to take into account the impact of significant changes to the road network when these are proposed. Traffic volume, composition (vehicle types), speeds and noise can be estimated in traffic impact assessments to identify whether changes or remedial measures are required to reduce the impacts of any proposals.

Policy 8.2 - Promote the uptake of low emissions vehicles.

As well as seeking overall traffic reduction we need to take action to limit the impacts of existing motor vehicular traffic on our streets. Vehicle type is a key factor in determining environmental impact: Alternative fuel vehicles, vehicles with smaller engines and more modern vehicles can have a significantly reduced impact both in terms of air quality and climate change emissions.

Southwark currently promotes the use of alternative fuel vehicles by providing discounted resident's parking permits. These vehicles generally have lower CO_2 emissions than conventional vehicles. For example, electric vehicles are capable of emitting less than 100g CO_2 per km when charged using a typical grid mix – including electricity generated from fossil fuels.

In 2007 a survey was carried out showing resident's permits banded by CO_2 emissions in terms of grams per kilometre. Vehicles banded below 100 grams per kilometre (1% of vehicles in 2007), including electric vehicles, are currently entitled to the discounted rate.

Table 18, Southwark registered vehicles by CO_2 emissions

Band	$C0_2$ Emit (g/km)	No. of vehicles per band (2007)	No. of vehicles per band (2010)	% of vehicles per band (2007)	% of vehicles per band (2010)
A	<100	1	15	1	0
B	101-110	25	118	1	2
C	111-120	56	173	2	3
D	121-130	51	114	2	2
E	131-140	242	440	8	9
F	141-150	400	581	14	11
G	151-165	584	963	18	19
H	166-175	279	448	9	9
I	176-185	223	856	8	17
J	186-200	356	517	12	10
K	201-225	307	425	10	8
L	226-255	258	320	9	6
M	255+	163	190	6	4
Total		2,945	5,160	100	100

Source: Southwark Council

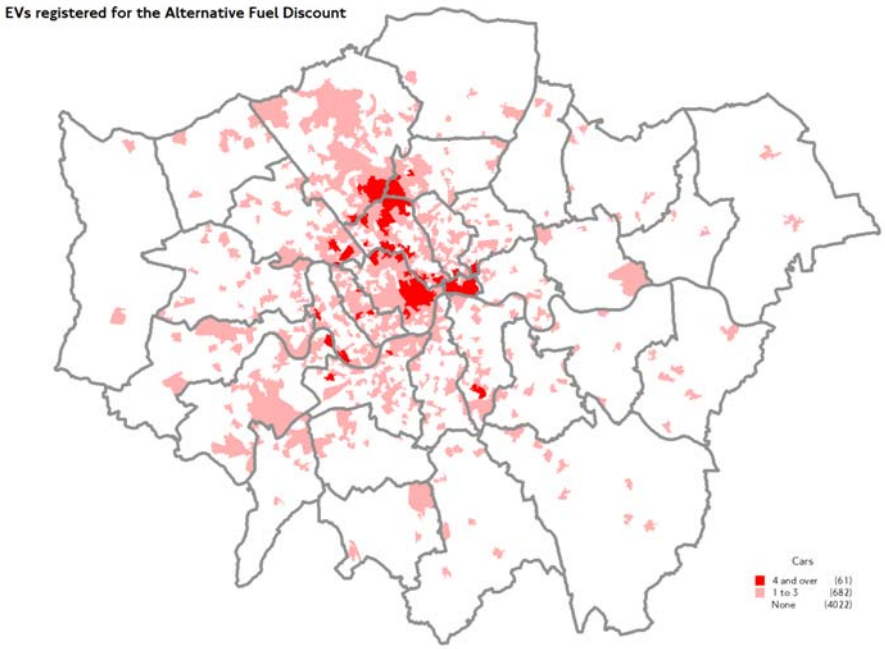
The council will be consulting on the introduction of further variation in residential parking tariffs to take more account of different levels of CO_2 emissions, rewarding those with lower emissions. 60% of people responding to our Transport Plan survey were in favour of such variable charges.

As a major fleet operator, the council aims to set an example of an efficient, green fleet as well as a safe one. Emissions from our fleet are estimated to be just over 636 tonnes CO_2 per annum. A review of our current fleet operation identified measures which could help to reduce these emissions by nearly 70%[50]. Recommendations include improved fuel management, targeted smart driver training and reviewing overnight storage of vehicles. Route choice is particularly important – for example the council's waste collection is carefully managed to ensure there is no unnecessary travel. The introduction of alternative fuel vehicles into the fleet has already yielded significant reductions in carbon emissions.

As well as emitting lower levels of CO_2, electric vehicles have the advantage of zero tailpipe emissions. The figure below shows electric vehicles registered in London and indicates a cluster of ownership in the Dulwich area of Southwark.

[50] Southwark green fleet review, Energy Saving Trust, 2010

Figure 29, Electric vehicles registered within the borough



Source: London's electric vehicle infrastructure strategy (draft) 2010

We recognise that electric vehicles can make a significant difference to local air quality where they are used to replace trips by conventionally powered vehicles. We do not, however, wish to promote electric vehicles as an alternative to public transport, walking or cycling and also recognise that they will be unaffordable to many. We are participating in the Source London network which is a pan London scheme to develop on-street charging points for electric vehicles. Initially, we will deliver a small number of trial sites in Southwark. In line with revisions to the London Plan, new developments where parking is provided will require charging facilities for electric vehicles.

Policy 8.3 - Reduce the impacts of motor vehicular traffic through education and enforcement initiatives.

As well as vehicle choice, the way vehicles are driven also affects their environmental impact. Small changes to driver behaviour, achieved through encouragement and enforcement, can help to reduce these impacts.

Currently, it is an offence to leave a vehicle engine running unnecessarily whilst parked, but enforcement can be problematic. The penalty charge is fixed at £20, significantly less than the £120 charge issued for parking offences and too low to be a powerful deterrent. A higher charge for idling offences would raise the profile of this offence, increasing the likelihood of compliance and making enforcement more practical. We recognise that it is also important to raise awareness of the impact of idling engines, particularly at locations such as schools where parents who leave their engines running contribute to poor air quality for their own children.

Eco driving - adopting a more fuel-efficient driving style – can make a real difference to emissions. Eco driving is being promoted through a questionnaire to determine existing driving habits and with the use of a driving simulator. Factors such as moving quickly up through the gears, sticking to the speed limit and anticipating traffic lights well in advance can all help to reduce fuel consumption and therefore carbon emissions.

Policy 8.4 - Reduce the noise impacts of road traffic.

As well as air quality and climate change factors, we need to consider transport related noise as this can affect quality of life, particularly for those living near busy roads. Southwark contains a number of priority areas where high noise levels have been identified[51].

Through the council's land use policies we promote the improved planning of new developments. This coupled with the better management of transport systems can have a positive effect in reducing noise impact. However it should be noted that in many areas (red routes, rail services and aircraft) the council has limited ability to control these noise generators. Managing traffic flows on borough streets is likely to be the council's most significant contribution to noise reduction.

A balance needs to be found between protecting residents from intrusive noise and maintaining essential vehicle access. Due to the pressures on our streets relaxing delivery curfews may need to be considered – more than three quarters of responses to our Transport Plan consultation supported the idea of night time deliveries. Extending delivery hours can assist in reducing congestion and pollution for the borough and deliver improved operational efficiency for local businesses. The development of quiet delivery technology can help to reduce noise impacts and make out of hours deliveries more acceptable for those living nearby.

Delivering objective 8: Reduce the impact of transport on the environment	
Actions to deliver this objective	Assess CO_2, air quality and noise impacts of all major transport projects
	Implement variable resident's parking tariffs based on CO_2 emissions
	Lead by example by following best practice for the council's vehicle fleet
	Implement on-street charging points for electric vehicles on a trial basis
	Support increased penalty charges for engine idling offences
	Promote fuel efficient driving styles
	Promote best practice in quiet delivery technology and techniques
	Install street trees by the 'right tree, right place' method
How we will measure that we are meeting this objective	Reduce traffic levels in Southwark by 3% by 2013
	Reduce CO_2 emissions from road based transport from 227kt CO_2 in 2008 to 190kt CO_2 in 2013

[51] http://www.defra.gov.uk/environment/quality/noise/environment/documents/actionplan/firstpriority/london-agglomeration-south-east.pdf

Section 6: Delivering change

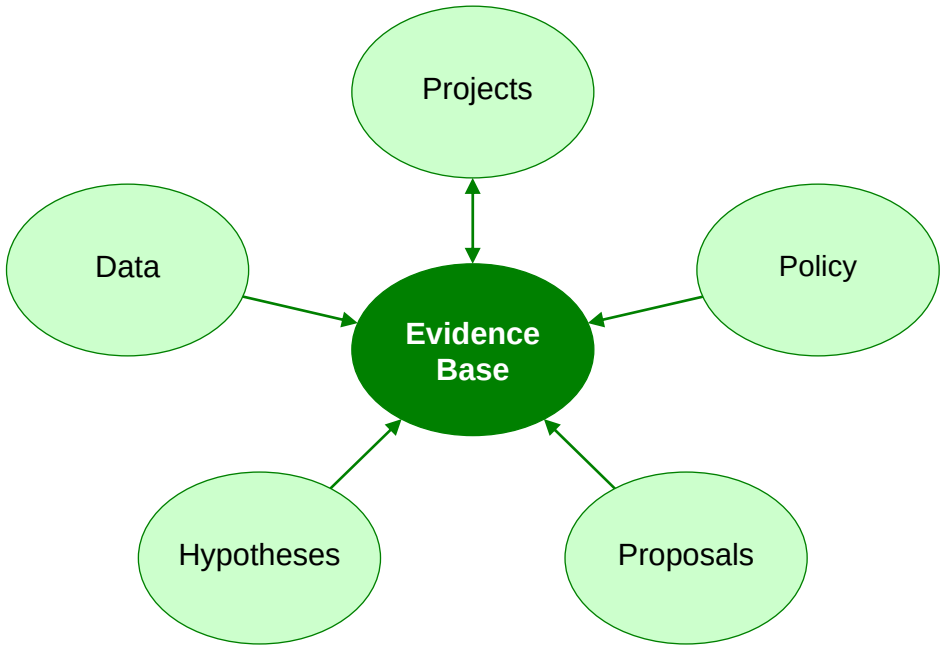
This section sets out how we will achieve the objectives and aspirations of the Transport Plan. This includes the schemes to be carried out, projected budgets and timescales. We have also considered how we will oversee delivery, manage change and risks as well as how we intend to monitor our progress.

Developing the transport improvement programme

We have developed an objective method for identifying new schemes and determining their priority to ensure that the funding provided for transport schemes is spent wisely. This approach helps us to decide what to spend and where to spend in order to deliver the Transport Plan. It ensures that expenditure is prioritised on schemes which will achieve the most and identifies what impacts they will have.

Scheme identification: an evidence based approach

We have developed and implemented an evidence based approach to scheme identification. The following diagram shows the key inputs to this process.



The evidence base brings together information from different sources such as concerns raised by the community, parking hotspots, collision data, traffic speed and volume data, accessibility levels and other previous proposals. This information is then mapped and used to identify potential transport projects. For example if an area is shown to have high speeds (as identified by traffic speed data), speed related collisions and correspondence relating to speed, then this area would be identified for further investigation.

This data led approach is complemented by discussions across the council and with other transport bodies, including TfL, rail, river and bus operators as well as neighbouring boroughs to identify opportunities for joint working.

A feasibility assessment is undertaken supported by site visits. Options are identified, scoped and priced, enabling the prioritisation process to begin.

Whole life costs are considered at this stage, so future maintenance requirements for the scheme are factored in for use during the prioritisation process.

Scheme prioritisation: a policy based approach

Prioritisation is a valuable, transparent process which can ensure delivery of our transport objectives in a cost effective and efficient manner. Prioritisation is essential in ensuring that limited resources are focussed on areas with the greatest need and where there is an opportunity to achieve the most.

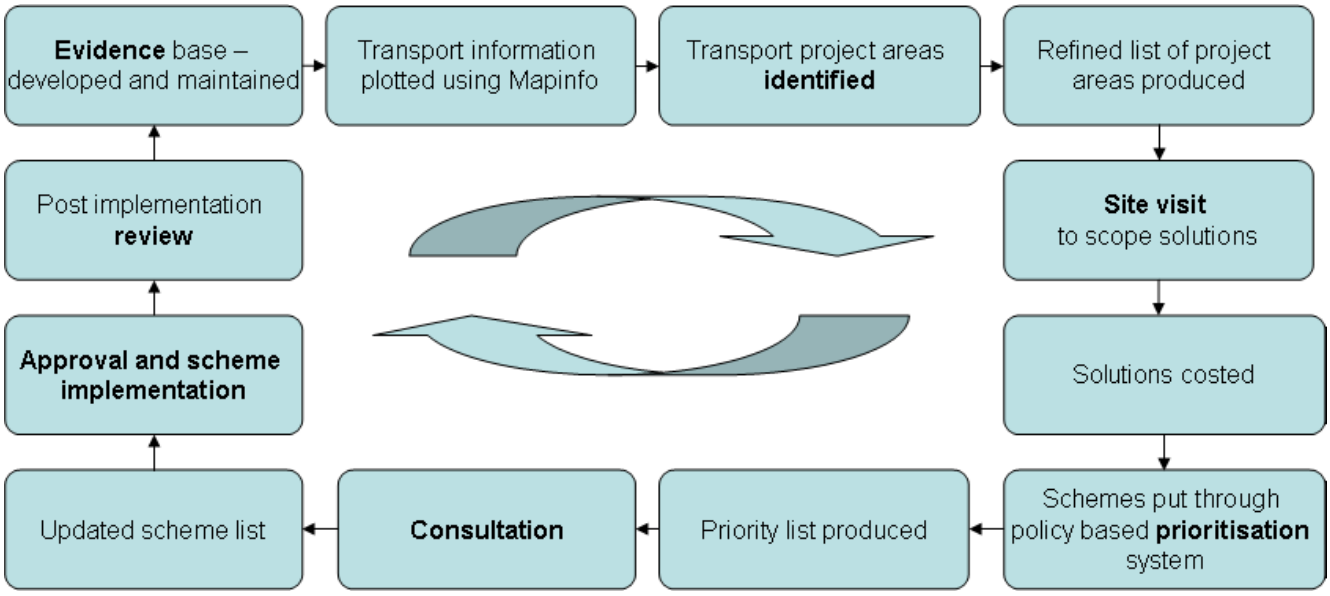
Our approach is transparent and demonstrates why some schemes have been included in the transport improvement programme and why others have not. It gives weight to Southwark's adopted policies as well as issues identified by the public, councillors, local stakeholders and community councils. It considers the potential impact of a scheme by assessing current and likely future conditions if the scheme goes ahead. The scale of this impact is compared to scheme cost to determine value for money. Consideration is also given to potential complementary schemes or match funding opportunities. Delivery risk is assessed. An overall score considering all these factors is given to each scheme to enable comparison and ranking.

Schemes for the financial year 2011/12 were prioritised using policies from our Sustainable Community Strategy as our borough Transport Plan objectives were not finalised in time for this process. Although our 3 year delivery programme has been developed using this same prioritisation system (2011/12 to 2013/14), an annual "refresh" will be carried out each year and the prioritisation system will be adapted to include the newly adopted transport objectives as well as targets established in this plan for prioritisation for 2012/13 and onwards.

Consultation

Once all schemes have been prioritised consultation is undertaken with key stakeholders and the council's eight community councils. Following this Cabinet agree the transport improvement programme for submission to TfL for their consideration.

A summary of our approach to scheme identification and prioritisation is outlined in the diagram below:



Funding the Transport Plan

Southwark's key source of funding for the Transport Plan is from TfL and this currently totals £8.337 million across the three years (2011/12 through to 2013/14). This does not include any additional funding for major schemes.

Funding is routinely secured as part of planning obligations (s106) for transport projects. This can either be site specific or through strategic contributions to increase the capacity of public transport provision across the borough and to deliver the Transport Plan. By the end of 2010, there was approximately £12m of s106 money for transport schemes in the borough. This includes money currently available to spend and money agreed but not yet available. It includes money for strategic transport as well as for specific locations. Where appropriate this funding will be made available to assist in delivering the Transport Plan.

In addition to funding from TfL and s106, the council does spend a significant amount on highways and transport schemes through its revenue budget. In 2009/10 the highways and transport services had a gross expenditure of nearly £29m. This includes the borough's parking, maintenance and highway asset programmes. The council's highways and transport services budget is determined annually and this plan sets in place initiatives to align the maintenance programmes alongside that of the transport investment programme.

Table 19, Investment table

Funding source	Year			Total (£k)
	2011/12	2012/13	2013/14	
Council	10,456	11,684	9,884	32,024
Developer	6,292	1,940	2,088	10,320
TfL - Lip	3,472	3,446	2,915	9,833
TfL - Business plan	407	2,447	2,100	4,954
Other	3,500	450	0	3,950
Total (£k)	24,127	19,967	16,987	61,081

The detailed programme of investment, the council's programme and funding sources for the next three years (2011/12 to 2013/14) follows.

We are required to refresh the delivery plan at least every three years, however we will review our programme annually and refresh after three years. Scheme outlines and proposed levels of spend should be viewed as indicative only as the council confirms the programme annually when further details will be provided.

Table 20, Investment programme

Programme areas		Funding source	Ongoing scheme?	Funding (£,000s)				MTS goals					LIP objectives								
				2011/12	2012/13	2013/14	Total	Econ. devt and pop growth	Quality of life	Safety and security	Opportunities for all	Climate change	Manage demand for travel and increase sustainable transport capacity	Encourage sustainable travel choices	Ensure the transport system helps people to achieve their economic and social potential	Improve the health and wellbeing of all by making the borough a better place	Ensure the transport network is safe and secure for all and improve perceptions of safety	Improve travel opportunities and maximise independence for all	Ensure that the quality, efficiency and reliability of the highway network is maintained	Reduce the impact of transport on the environment
Corridors and Neighbourhoods	**East Dulwich** - public realm and pedestrian access scheme (Grove Vale and Lordship Lane) Yr 2 of 2 year scheme	**LIP allocation**	✓	400	0	0	400	✓		✓	✓		✓		✓	✓			✓	
	Peckham Rye South (between Scylla Road, East Dulwich Road and Nunhead Lane - Review of signalised junctions, pedestrian and cycle improvements. Extended to cover Scylla Road, Whorlton Road and Old James Road. Yr 2 of 2 year scheme	**LIP allocation**	✓	538	0	0	538	✓		✓			✓		✓		✓			
	Southwark Park Road/ Grange Road (between St James' Road and Tower Bridge Road) - Road safety and access to Spa Park. Reduce speeds and address vehicle dominance. Yr 2 of 2 year scheme	**LIP allocation**	✓	292	0	0	292	✓	✓				✓			✓	✓		✓	
		Developer		67	0	0	67													
	Marine St, junction with Old Jamaica Road and arch - Improve streetscape	**Developer**		150	0	0	150			✓							✓			
	Copeland and Consort Road - changes to the roads forming the one-way system in order to improve safety, reduce speeds and reduce community severance. Yr 2 of 2 year scheme	**LIP allocation**	✓	271	154	0	425	✓		✓		✓	✓		✓	✓	✓			✓
		Developer		87	0	22	109													
	EVCB - Further implementation of electric vehicle charging points and running costs (subject to trial in 10/11)	**LIP allocation**		25	25	25	75					✓								✓
	West Walworth - Legibility, permeability and accessibility improvements on streets to the west of Walworth Road	**LIP allocation**	✓	170	0	0	170		✓	✓	✓		✓		✓	✓	✓	✓		
	Forest Hill Road - St Francesca Cabrini STP measures in year 1 and general speed reduction measures in year 2.	**LIP allocation**		145	400	0	545			✓	✓		✓	✓			✓			
	Paxton Green - Reconfiguration of the roundabout in order to reduce speeds and improve pedestrian access through the area, particularly for school children. Wider STP measures for local schools. Complements Lambeth scheme in area.	**LIP allocation**		275	0	0	275			✓	✓		✓				✓		✓	
	Lant (Mint) Street - Measures to deter through traffic from using Mint Street/ Weller Street/ Lant Street	**LIP allocation**		64	0	0	64		✓			✓	✓						✓	✓
		Developer		0	0	0	0													
	Amelia Street- Streetscape improvements	**Developer**		450	0	0	450	✓	✓		✓		✓		✓	✓			✓	
	Barry Road - Safety measures at the junction of Barry Road and Underhill Road and wider speed reduction measures and junction treatments on Barry Road.	**LIP allocation**		0	0	389	389		✓	✓						✓	✓			
	Bellenden area - Traffic management based on outcome of Peckham model.	**LIP allocation**		25	100	200	325	✓				✓							✓	✓
		Developer		0	0	4	4													
	East Dulwich Grove - speed and collision reduction, pedestrian accessibility and school travel plan measures	**LIP allocation**		0	50	379	429		✓	✓	✓		✓	✓		✓	✓	✓		✓
	Rotherhithe New Road - Collision reduction, school and park access, new cycling route	**LIP allocation**		0	50	425	475	✓		✓	✓		✓		✓	✓	✓	✓		
	Long Lane - speed and collision reduction, pedestrian accessibility and school travel plan measures	**LIP allocation**		0	50	285	335		✓	✓	✓	✓	✓	✓		✓	✓	✓		✓
	Scheme development - Development funding for 2014/15 schemes yet to be identified	**LIP allocation**		0	0	100	100													
	***Cycle training -** provision of cycle training across Southwark. To cover staffing, management, promotion, publicity and delivery of training sessions to all groups	**LIP allocation**	✓	163	156	134	453		✓		✓	✓		✓	✓			✓		✓
	***Surveys -** Cross borough programme of surveys and monitoring at a strategic level, including walking, cycling and traffic counts	**LIP allocation**	✓	30	30	30	90	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓
	***Sustainable travel infrastructure -** identification and delivery of on street cycle parking, dropped kerbs, estate cycle parking and other measures to support sustainable modes of travel	**LIP allocation**	✓	60	60	60	180	✓			✓	✓	✓		✓	✓				
		Developer		0	0	27	27													
	Estate cycle parking	**LIP allocation**	✓	50	50	50	150	✓			✓	✓	✓		✓	✓				✓
		Developer		0	0	0	0													
	Surrey Square green links Walking and cycling improvements	**LIP allocation**		0	300	0	300		✓		✓	✓	✓		✓	✓				✓
	CSH 7 complementary measures	TfL Business Plan		0	118	0	118						✓		✓	✓				
	CSH 5 complementary measures Permeability improvements, estate cycle parking, permeabitily, training along Route 5	**LIP allocation**		50	120	0	170	✓			✓	✓	✓		✓	✓				
		TfL Business Plan		0	75	0	75													
	Pedestrian phases Introduce pedestrian facilities at signalised junctions on borough roads.	**LIP allocation**	✓	50	0	0	50	✓			✓	✓	✓		✓	✓	✓	✓		✓
		Developer		25	0	0	25													
	Rotherhithe Peninsula - Small scale infrastructure interventions building on smarter travel saturation project	**LIP allocation**		0	145	0	145		✓		✓	✓	✓	✓	✓	✓				✓
	Camberwell quick wins Walking routes and environmental improvements on quiet streets around town centre. Dropped kerbs, declutter,	**LIP allocation**		0	150	0	150	✓	✓		✓	✓	✓		✓	✓		✓		✓

	planting, artwork.	**Developer**		100	0	0	100												
	Tooley Street Streetscape improvements	**Developer**		405	0	0	405	✓			✓		✓		✓				✓
	Peckham Rye station access Walking links to the station and pedestrian safety improvements on Rye Lane adjacent the station	**LIP allocation**		0	250	0	250	✓	✓		✓	✓	✓		✓	✓			✓	✓
		Developer		0	10	0	10													
	Queens Road Peckham station access	**Council revenue**		215	0	0	215	✓	✓		✓	✓	✓		✓	✓			✓	✓
		Developer		83	0	0	83													
		Network Rail		150	0	0	150													
	Connect 2 Comprehensive walking and cycling network, including reopening disused rail bridge	**Big Lottery Fund**	✓	150	450	0	600		✓		✓	✓	✓		✓	✓			✓	✓
	Developer funded local transport improvements	**Developer**	✓	513	998	998	2,509						✓	✓		✓	✓			✓
	Car clubs	**TfL Business Plan**	✓	22	22		44	✓			✓	✓	✓		✓				✓	✓
		Developer		80	23	23	126													
	Parking review programme	**Council revenue**	✓	250	50	50	350	✓			✓	✓	✓		✓				✓	✓
		Developer		443	54	54	551													
Smarter Travel	***Travel awareness campaigns and events -** Various events and actitivites associated with promoting smarter travel choices. Inlcuding mobility week, Dr Bike and travel awareness for 'Corridors & Neighbourhoods' schemes.	**LIP allocation**	✓	50	72	61	183		✓		✓	✓		✓	✓		✓	✓		✓
	***Road safety education, training and publicity -** Campaigns and events to encourage safer travel behaviour. Including independent travel training, child road sfaety, LGV and cyclist campaigns and theatre for children and the elderly.	**LIP allocation**	✓	88	85	73	246		✓	✓	✓	✓		✓			✓	✓		
	***School travel plan initiatives -** Enouraging the use of sustainable modes of travel to and from school, especially active travel, through school travel plans. This includes staffing a school travel plan advisor, campaigns such as Walk to School and WoW, small grants and small infrastructure works.	**LIP allocation**	✓	118	113	97	328		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓
		Developer		15	0	0	15													
	School Crossing Patrol	**Council revenue**		288	248	248	784							✓			✓	✓		
	Elephant and Castle Travel awareness	**LIP allocation**		25	50	50	125						✓	✓	✓					✓
		TfL Business Plan		10	0	0	10													
	***Travel plan support and implementation -** Advice and support for travel planning groups and travel plan development and implentation. Includes staffing, implementation of the councils own travel plan and providing funding for local travel planning groups.	**LIP allocation**	✓	58	55	47	160	✓				✓	✓	✓	✓					✓
		Developer		15	45	50	110													
	Community Streets Community led, small scale interventions. Mainly residential, but could extend to retail parades	**LIP allocation**		50	60	60	170	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
	Footway renewal - targeted resurfacing of footway areas to improve the pedestrian environment	**LIP allocation**		0	200	0	200		✓	✓	✓					✓		✓	✓	
	Walking and cycling permeability - improving access and reducing travel times through small scale infrastructure changes such as dropped kerbs and cycle contraflows.	**LIP allocation**		0	150	0	150	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
	Discretionary funds	**LIP allocation**	✓	100	100	100	300						✓	✓	✓	✓				✓
Integrated transport total				**6,615**	**5,068**	**4,041**	**15,724**													
	Principal Road Renewal	**LIP allocation**		0	471	350	821													
	Champion Park	**LIP allocation**		209	0	0	209	✓	✓								✓		✓	✓
	Rotherhithe Old Raod	**LIP allocation**		141	0	0	141													
	Non Principal Road maintenance																			
	- Priority locations	Council revenue	✓	0	0	0	0										✓		✓	✓
	Bridge assessment and strengthening - Prioritised locations include Commercial Way Bridge, Camberwell Grove Bridge	**LIP allocation**		0	0	0	0										✓		✓	✓
	Willowbrook Road Bridge	**LIP allocation**		25	0	0	25													
	Asset Management	Council revenue	✓	9,486	9,486	9,486	28,458										✓		✓	✓
Maintenance total				**9,861**	**9,957**	**9,836**	**29,654**													
Major Schemes	**Denmark Hill station access**	TfL Business Plan	✓	150	0	0	150							✓	✓	✓	✓	✓		✓
	Camberwell town centre	TfL Business Plan		200	2,254	2,000	4,454	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Developer		112		100	212													
		Council revenue		202	1,800	0	2,002													
		English Heritage		300	0	0	300													
	Lower Road gyratory	Developer		15	0	0	15	✓	✓			✓	✓		✓				✓	✓
		Council revenue		15	100	100	215													
		TfL Business Plan		0		100	100													
	Canada Water Plaza	Developer	✓	3,000	0	0	3,000	✓	✓		✓		✓		✓	✓				
	Strategic S106 schemes	Developer	✓	732	810	810	2,352								✓	✓	✓	✓	✓	
	Thames Path accessiblity improvements - Olympic Legacy	GLA		2,900	0	0	2,900		✓		✓		✓		✓			✓		✓
Major Scheme total				**7,626**	**4,964**	**3,110**	**15,700**													

Delivering major schemes

There are a number of transformational schemes proposed in the borough that will deliver a step change

Canada Water Plaza

The Canada Water Plaza will be a new civic square in the heart of the Canada Water regeneration area. The new square occupies a key location between the Canada Water tube and bus stations, the new Canada Water public library, and a number of development sites.

The new space will contain new street trees, improved lighting, a dock-side promenade area with terracing, extensive seating which can be moved to make way for events on the space and new cycle parking.

Elephant and Castle

Major regeneration is planned for the Elephant and Castle and the council is working with TfL to improve pedestrian access and provide public realm improvements. Works have commenced with the removal of the southern roundabout which is funded by TfL and S106 contributions. This provides better access to the whole centre, surface level pedestrian facilities and an uplift in the local streetscape. Discussions are taking place with the GLA, TfL and developers to agree the most viable scheme for the northern roundabout and a new ticket hall that meets all of the aspirations for the regeneration of the area.

London Bridge bus station

Funded through development contributions, £25m is being spent on transforming London Bridge bus station into a modern and open transport interchange. The new interchange will be supported by a new bus station, train concourses, underground connections and a public space.

The new bus station will create more space for buses and taxis, improving the road layout to reduce congestion, and providing better facilities for passengers. While the new connections will improve access to and from the area opening up new journeys and the new space will be a place for people to enjoy.

We are working with Network Rail, Transport for London and the developers of the Shard to deliver this important project.

Camberwell town centre

The Camberwell town centre scheme, while focussing on transport issues, will provide the opportunity for coordination across a range of regeneration activities and initiatives in the area, and more joined up working across Southwark Council services.

Camberwell is located on the borough boundary with Lambeth Council and this scheme will provide the opportunity for better working across the authorities.

Currently the town centre is dominated by vehicular movement. To support the local economy this scheme will improve conditions for deliveries and servicing, whilst also increasing footfall through pavement widening, reviewed signal timings, and a reduction in street clutter and pedestrian railings. It is proposed to improve interchange by reviewing bus service and stopping arrangements.

This major scheme is a priority for the council. TfL have provided funding of £200k with the council contributing a further £100k S106 to the development of the scheme. An additional £6m is required for the design and implementation of the scheme. Part of this scheme is on the TLRN and cycle superhighways five and six have been designated to go through this area.

Lower Road gyratory removal –

The Lower Road gyratory currently suffers from significant delays and the council proposes to remove the gyratory system to reintroduce two way working to Lower Road, this is the council's second priority to the improvements to the Camberwell Town Centre.

In doing this we will be able to;

- Create a new high street linking the Canada Water Basin with Lower Road
- Undertaking public realm improvements on Lower Road to
- Improving pedestrian and cycle links between Hawkstone Road, Surrey Quays station and the shopping centre
- Help make traffic movement more efficient and improve the environment around the gyratory

This scheme is currently being developed in discussion with London borough of Lewisham and TfL. The total cost of this scheme is estimated to be in the region of £9m. It is expected that developer contributions will be in the region of £7.5m therefore funding will be sought from the TfL Major schemes budget to deliver this scheme totalling £2m. It is expected that an application will be submitted to TfL for this scheme in October 2012/13 with the view to commencing the development of the scheme in 2013/14.

Working with TfL to deliver improvements to the TLRN

TfL manage a significant number of roads within the borough and the borough's improvement programme is mindful of works proposed by TfL. When we develop our investment programme we work with TfL to explore opportunities for joint working. As an example, the borough will be undertaking complementary works to the local network to maximise access to cycle superhighway 5 being introduced by TfL. Through joint working and understanding the borough and TfL can work together to deliver the transport plan.

The following table details TfL's investment programme to 2013/14, (totalling £5.8m), this may be subject to change. This investment programme is supported by the continuing traffic signal improvements, carriageway and footway repairs and maintenance programmes.

Table 21, TfL Transport investment programme

Scheme Name	Description	Anticipated start	Anticipated completion
A202 Camberwell New Rd j/w John Ruskin Street	Review junction to include right turn for cyclists	2006/2007	2010/2011
8A200 Dockhead & Tooley St Road j/w Jamaica Road	Redesign of the traffic conditions on Jamaica Road from Dockhead to Tooley Street with consideration of a dedicated cycle lane.	2008/2009	2011/2012
A3202 Morley Street and St Georges Crossing	Preliminary design of the cycle improvement measures at the crossing.	2008/09	2011/12
A200 Queen Elizabeth Street j/w Tower Bridge Road	Cycle improvement measures	2008/2009	Not specified
Bricklayers Arms Flyover	Preliminary and detailed design and construction of waterproofing and drainage repairs on Bricklayer's Arms flyover	2009/2010	2011/2012
A3 Borough High Street	Footway and carriageway works	2009/2010	2011/2012
A201 London Road	Carriageway works	2009/2010	2011/2012
A3 Kennington Park Road (Junction Newington Butts to Junction of Harleysford Road)	Link to implementation of cycle superhighway	2009/2010	2011/2012
A304 Kennington Lane & A3 Kennington Park Road	Link to implementation of cycle superhighway	2009/2012	2012/2013
Stamford Street junction with Blackfriars Road	Safety improvements	2011/2012	2011/2012
Jamaica Road	Continue westbound bus and cycle lane on Jamaica Road	2009/2010	TBC
A201 London Road	Footway	2010/2011	2011/2012
A2 Old Kent Road	Carriageway works	2010/2011	TBC
Southwark Street	Carriageway works	2010/2011	2011/2012

St Thomas Street	Renewal and upgrade of St Thomas Street from Borough High Street to Stainer Street.	2011/12	2012/2013
A205 Dulwich Common junction with Alleyn Park	Safety improvements	2011/12	2011/2012
A100 Tower Bridge Road junction with Abbey Street	Installation of pedestrian phase and upgrade crossing points	2011/12	2011/2012
A200 Druid Street junction with Tower Bridge Road	Install ASL at the junction and consider lead in lanes.	2011/2012	2011/2012

Risk assessment and mitigation

In implementing this plan there are risks which we must be aware of and plan for. At the strategic level the drive and support for the transport improvement programme must be maintained but it is also essential to consider variations in funding availability.

Table 22 identifies a range of risks and mitigation measures relating to the delivery of the overall transport improvement programme. To manage the risks of individual schemes a risk register is established and maintained for each scheme in the programme. As part of our risk assessment process, programme delivery is monitored at monthly meetings in order to identify and resolve any problems as soon as they occur.

Table 22, Transport improvement programme risk register

Risk	Mitigation
Resources	Identification of a reserve list of schemes in order to ensure efficient use of funding and resources if initially prioritised schemes cannot proceed.
Delay	Timescales for delivery should allow sufficient time for detailed design, consultation and to address any issues identified.
Budget reductions / cost increases	Scheme budgets are set before detailed design therefore scheme costs can vary as the schemes are developed, even though contingencies are included. Scheme costs are reviewed internally on a bimonthly basis and any variations must go through our change management process. Where a scheme experiences delays, funding may be transferred to the next scheme in the priority list.
Political	Each scheme feasibility design is approved by the portfolio holder for Transport, Environment and Recycling before going out for consultation.
Traffic signals – TfL controlled and long lead in times for changes	Forward planning required.
Works on the Strategic Road Network	Works on the Strategic Road Network require approval from Network Assurance (TfL). It may be that their aspirations are different from ours. For example we may wish to see improvements for walking which could result in a reduction in the overall traffic capacity. Schemes located on the SRN will be programmed over a longer time period to ensure there is sufficient time to gain the appropriate approvals to deliver the scheme.
Policy alignment	There is a risk that a scheme may not meet its initial objectives as it could be changed through the delivery process. Our change management process will mitigate this risk.

Change management

The importance of effective change management should not be underestimated as funding for the transport improvement programme is fixed. This means that any overspend on a particular project in a given year will directly affect the ability of the council to deliver the other agreed projects in the programme scheduled for the same or future years.

Changes to a scheme, its allocation or works, can sometimes be necessary. The delivery programme may change due to a variety of factors and require schemes to be redefined, rescheduled, or removed from the programme. Should this occur, there may be an opportunity to introduce ‘substitute’ schemes to fill any resulting gaps in the programme. In order to anticipate and manage potential changes to the

programme a formal review meeting with the Cabinet Member for Transport, Environment and Recycling will be held three months into each delivery year, and then at months six and ten.

Where a ‘gap’ in the programme arises, the scheme with the next highest priority in the delivery programme should be brought forward as a matter of course. However, this will be subject to deliverability factors and it may be necessary to go further down the list to find a project that can be delivered within the available budget, to the required timescales and in an efficient manner. Any scheme changes will have to meet our transport objectives and the Cabinet member for Transport, Environment and Recycling has the authority to approve changes to the transport improvement programme.

Delivery of the Mayor’s high level outputs

The following section outlines how each of the Mayor’s six high level outputs will be supported at a local level in Southwark.

Cycle parking

The Mayor aims to increase the number of cycle parking spaces by 66,000 by 2012. Southwark will continue to require that developments in the borough adhere to the cycle parking requirements as set out in the sustainable transport SPD. We will work with employers when developing their workplace travel plans to encourage the provision of cycle parking and facilities such as showers, changing and storage areas.

We will also collect data on the amount and type of on and off street cycle parking secured and report on this to TfL on an annual basis. The council will continue to respond to requests for additional on street cycle parking and for secure off street parking in residential areas.

Cycle superhighways

The Mayor plans to implement a total of 12 radial cycle superhighways to improve cycle access to central London, to encourage a modal shift to cycling and reduce congestion and emissions. The cycle superhighways project is one of the key schemes which the Mayor has begun to implement with the aim of bringing about a cycling revolution to achieve a 400% increase in cycling levels by 2025 (compared to 2000 levels).

One of the first cycle superhighways, route 7, runs through part of Southwark. It starts at Southwark Bridge over the Thames and heads south leaving the borough to join the neighbouring borough of Lambeth in the Kennington area. The remaining 10 routes will be implemented by 2015.

Cycle superhighway route 7 has been supported by the provision of cyclist training which is offered free to all those who live, work, visit or study in the borough. It has also been supported by additional residential cycle parking which has been offered to housing estates falling within a 1.5km corridor either side of the cycle superhighway. Those estates who do receive cycle parking will also be offered Dr Bike sessions and informed of the cyclist training available.

Provided that funding is available, similar work will be carried out to support the remaining 3 cycle superhighways routes which will run through parts of the borough. These routes are:

- CS4: Woolwich to London Bridge (by 2015)
- CS5: Lewisham to Victoria (by October 2012)
- CS6: Penge to City (by 2015)

Electric vehicle charging points

Southwark will be installing three on-street electric vehicle charging points as part of a pilot programme. If this pilot is successful and funding is available then further investment will go into providing more electric vehicle charging points across the borough.

Currently there is no council policy governing if or when a developer should install electric vehicle charging points within a new development. However, as part of the revisions to the London Plan the Mayor intends to introduce a requirement that new developments with 5 parking spaces or more should provide charging equipment for at least 20% of parking spaces. The London Plan is expected to be adopted in 2011 but the Mayor expects that developers should take account of this policy in the meantime.

It is relatively cheap to provide infrastructure for slow charging, which is appropriate for locations involving a long stay such as for residential developments and disabled parking at workplaces. We will ask developers to install such infrastructure at all appropriate locations in new developments, and will seek to incorporate this as a requirement in the review of transport policies in the Local Development Framework. For other developments we will seek to meet the Mayor's requirements as a minimum. In addition to this the number and locations of electric vehicle charging points installed as part of the development process will be recorded and monitored as required by TfL.

Better streets

The Mayor's "better streets" initiative considers that all schemes should be distinguished with good quality sustainable materials, high levels of craftsmanship, and reflect the local area's character. This aim is supported by Southwark's new Streetscape Design Manual which sets out the council's requirements for the design of streets and provides advice on how to configure these. The desire to create 'better streets' does not replace, but rather sits alongside the basic requirement that infrastructure schemes deliver on key outcomes as defined by the transport objectives above.

Where appropriate a "guard rail removal assessment" is carried out on each scheme so that where it is deemed safe to do so, existing guard railing is removed. This will be reported on as part of the annual reporting required by TfL.

Cleaner local authority fleets

In 2010 the Energy Saving Trust carried out a green fleet review for Southwark council. Specific measures to reduce the CO_2 emissions of the fleet were identified and subsequently some of these measures have already been implemented. The emerging Air Quality Strategy and Action Plan supports smarter driver training that will be offered to all employees that are required to drive for work purposes.

Street trees

Southwark is fully supportive of the Mayor's aim to plant an additional 10,000 street trees in London by 2012. The number of new street trees in the borough has been going up steadily for the past 3 years. The council's Tree Management Strategy, aims to have all publicly owned trees, including parks, surveyed and mapped by 2012/13. This will allow for accurate reporting to TfL on an annual basis.

Section 7: Performance monitoring

In order to monitor delivery of our Transport Plan objectives and intended outcomes, we have identified a number of targets and indicators shown in the following table.

Table 23, Targets and indicators for monitoring delivery of Transport Plan outcomes

Target/ Indicator	Baseline	Transport Plan objectives	Monitored
Excess wait times for high frequency bus services from 1.2 minutes to 1.0 minute in 2013/14	2009/10	1, 2, 3, 7	Reported to TfL
Maintain the proportion of principal road length in poor condition at 11.1% by 2013/14	2009/10	7	Reported to TfL
Reduce CO_2 emissions from road based transport from 227kt CO_2 in 2008 to 190kt CO_2 in 2013	2008	8	Reported to TfL
Reduce traffic levels in Southwark by 3% by 2013	2010	1, 8	Locally reported
Increase the walking mode share in Southwark to a third (33%) by 2013	2006/2008 three year average	1, 2, 4,6	Reported to TfL
Increase the proportion of those cycling in Southwark from 3% to 4% by 2013/14	2007/09 three year average	1, 2, 4	Reported to TfL
Reduce the number of all total casualties by 33% by 2020	2004/2008 three year average	5	Reported to TfL
Reduce the number of killed and seriously injured by 33% to 2020	2004/2008 three year average	5	Locally reported
Reduce the total number of slight casualties by 33% by 2020	2004/2008 three year average	5	Locally reported
Reduce all cyclist casualties by 44% by 2020 based on a 2004/08 baseline	2004/2008 three year average	5	Locally reported

Target setting

We have identified a number of targets to monitor our performance and ensure delivery of outcomes. These targets are focused on five themes improving bus service reliability and the condition of our principal roads, reducing CO_2 emissions, encouraging walking and cycling and improving road safety. These targets aim to be both ambitious and realistic given anticipated funding levels.

These targets are indicative and will be reviewed on a triennial basis alongside the preparation of the three year delivery report.

Bus journey time reliability target

Improving public transport reliability is of particular importance given the reliance on bus services in the borough. This is measured by excess wait time (EWT). EWT of any service reflects the delays occurring on the whole route, in many cases including sections of the route running outside of the borough. It does not include additional wait time for passengers unable to board a bus that is full on arrival at the stop. This indicator measures excess wait time (EWT) for all high frequency bus services running within the borough.

Table 24, EWT in Southwark from 2008/09 to 2009/10

Q3 2008/9	Q4 2008/9	Q1 2009/10	Q2 2009/10	Q3 2009/10	Q4 2009/10
1.4	1.1	1.0	0.8	1.3	1.0

Table 25, Bus service reliability target

Reduce the average excess wait time for high frequency bus services from 1.2 minutes in 2009/10 to 1.0 of a minute in 2013/14	
Target trajectory	1.0 minute
Evidence that the target is realistic and ambitious	Over the period 2008/09 to 2009/10 the EWT in the borough was on average 1.2 minute. TfL projects that the annual average EWT across London will increase from 1.1minutes (2010/11) to 1.2minutes in 2013/14. Therefore the target set by Southwark is more ambitious than this. Our target is considered to be both realistic and ambitious given the planned interventions and improved management of road works. However it should be noted that the council has only a limited role in influencing the borough wide EWT.
Key actions for the council	• Improving interchange at Peckham Rye station • Camberwell town centre improvements • North Peckham green links – including bus improvements
Key actions for local partners	Bus operators can support this target through better contract management in partnership with TfL and improved driver training.
Principal risks and how they will be managed	Key risks are associated with reductions in service frequency and increases in traffic volumes, which would increase bus delays. An additional key risk is funding for a major scheme not coming forward – e.g. Camberwell town centre and Lower Road gyratory.

Table 26, Bus service reliability baseline data with target trajectory

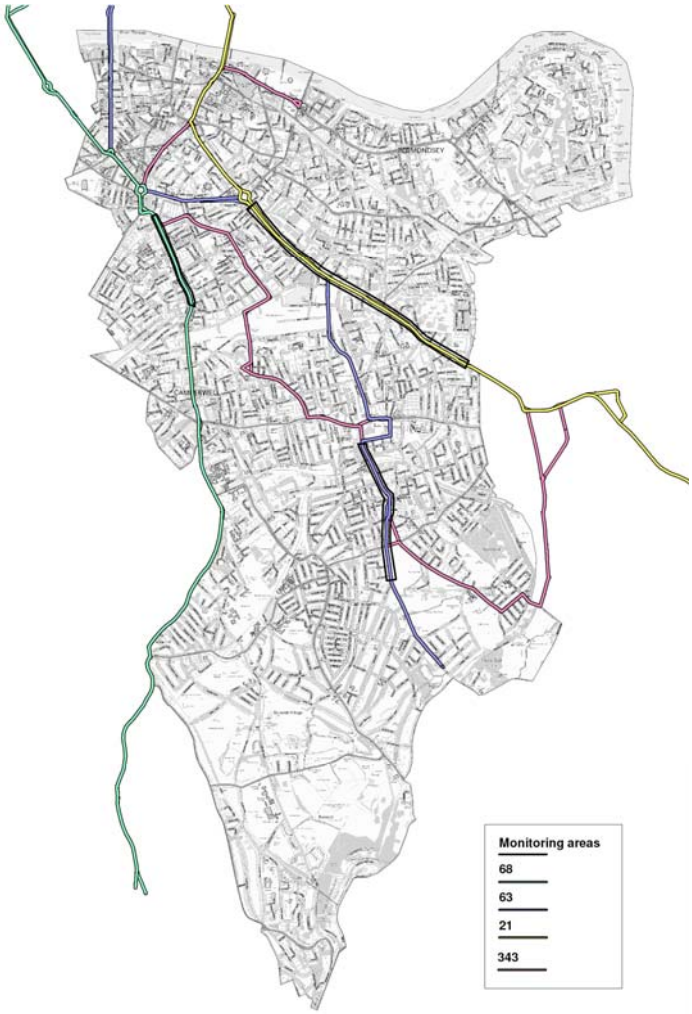
Definition	Base year	Base year value	Target year	Target year value	Trajectory data				Long-term (2017/18) target
					2010/11	2011/12	2012/13	2013/14	
Bus service reliability	2009/10	1.2	2013/14	1.0	1.2	1.1	1.1	1.0	0.9

In order to build up a picture of bus delays in Southwark we monitor bus journey time annually on four key route sections using information provided by TfL. These are shown in the following table.

Table 27, Target bus corridors

Road	Route	Start and end location
Old Kent Road	Route 21	Old Kent Rd/ East St to Old Kent Rd/ Ilderton Road
Walworth Road	Route 68	Elephant and Castle station to Camberwell Rd/ Albany Road
Rye Lane	Route 63	Peckham Rye station to Peckham Rye/ Barry Road
	Route 343	Southampton Way to Hampton Street

Figure 30, Target bus corridors



Road condition target

This indicator measures the proportion of the borough's principal road network in poor condition and therefore where maintenance should be considered. As shown in figure 31, road condition has varied significantly between 2003/04 and 2009/10. The condition of the highway network is affected by a number of factors including usage, works, and weather conditions. Given this and funding constraints, our target is to maintain the length of principal roads in poor condition at a constant level.

Table 28, Road condition target

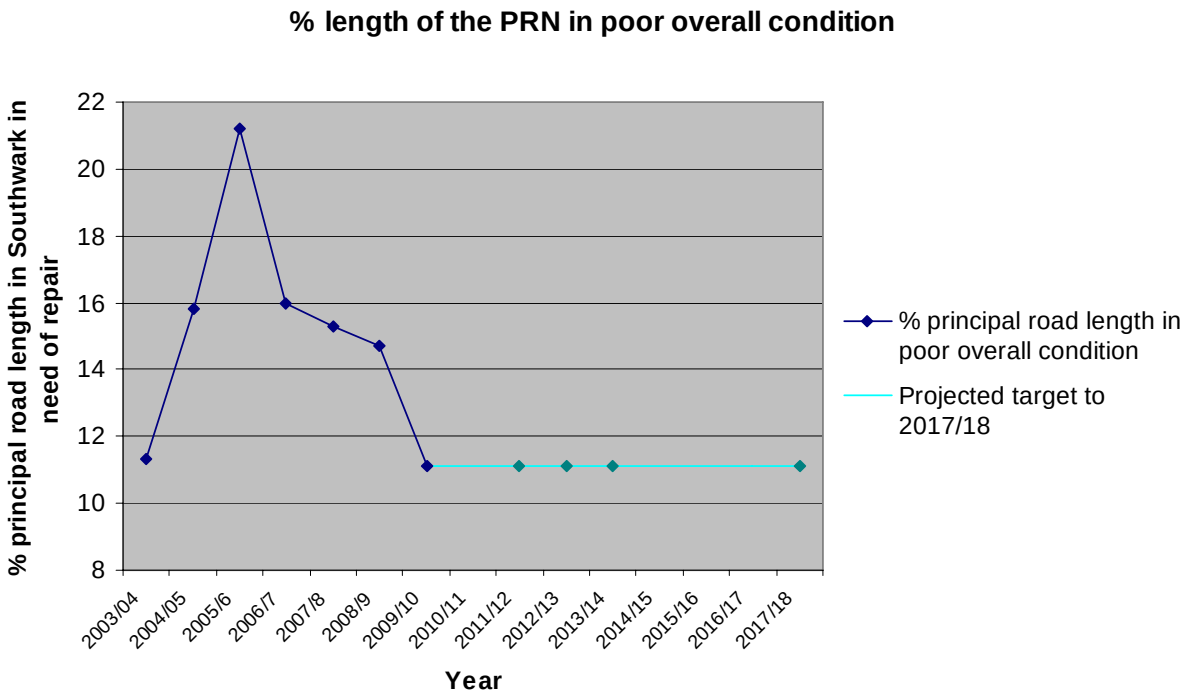
Maintain the % of principal road length in poor condition at 11.1% by 2013/14	
Evidence that the target is realistic and ambitious	The condition of the principal roads in Southwark currently places the borough in the bottom quartile when compared with the rest of London. The funding likely to be made available through maintenance funding is only expected to enable us to maintain the current standard of the principal road network. Recent performance data has shown condition of the principal roads has worsened so it is considered that to aim to maintain the current state of repair is ambitious.
Key actions for the council	Enhancements will be targeted at roads with the highest UKPMS score but would also be targeted at achieving maximum benefit by complementing other TfL funded schemes. The council prepares a prioritised list of principal and non principal roads in need of repair which is considered by the Cabinet for funding.
Key actions for local partners	Close working with our contractor will be required to ensure the effective programming and delivery of schemes.
Principal risks and how they will be managed	Unusual or extreme weather conditions, such as hot dry summers and snow and ice in winter, may cause increased damage to road surfaces in the borough and across London as a whole. A lower level of funding than anticipated could also severely affect performance.

Table 29, Road condition baseline data with target trajectory

Definition	**Base year**	**Base year value**	**Target year**	**Target year value**	**Trajectory data**				**Long-term (2017/18) target**
					2010/11	**2011/12**	**2012/13**	**2013/14**	
Asset condition	2009/10	2013/14	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%	11.1%

The long term target has been set for 2017/18 to coincide with the TfL business plan and funding cycle.

Figure 31, % principal road length in poor condition



CO_2 emissions target

This indicator measures CO_2 emissions from all sources of ground based transport. The Mayor's target of a reduction in CO_2 emissions, emanating from ground based transport, of 60% from 1990 levels by 2025 is the basis for Southwark's CO_2 reduction target. The data in table 31 (source: LEGGI) has been plotted in figure 31 as the borough's target trajectory.

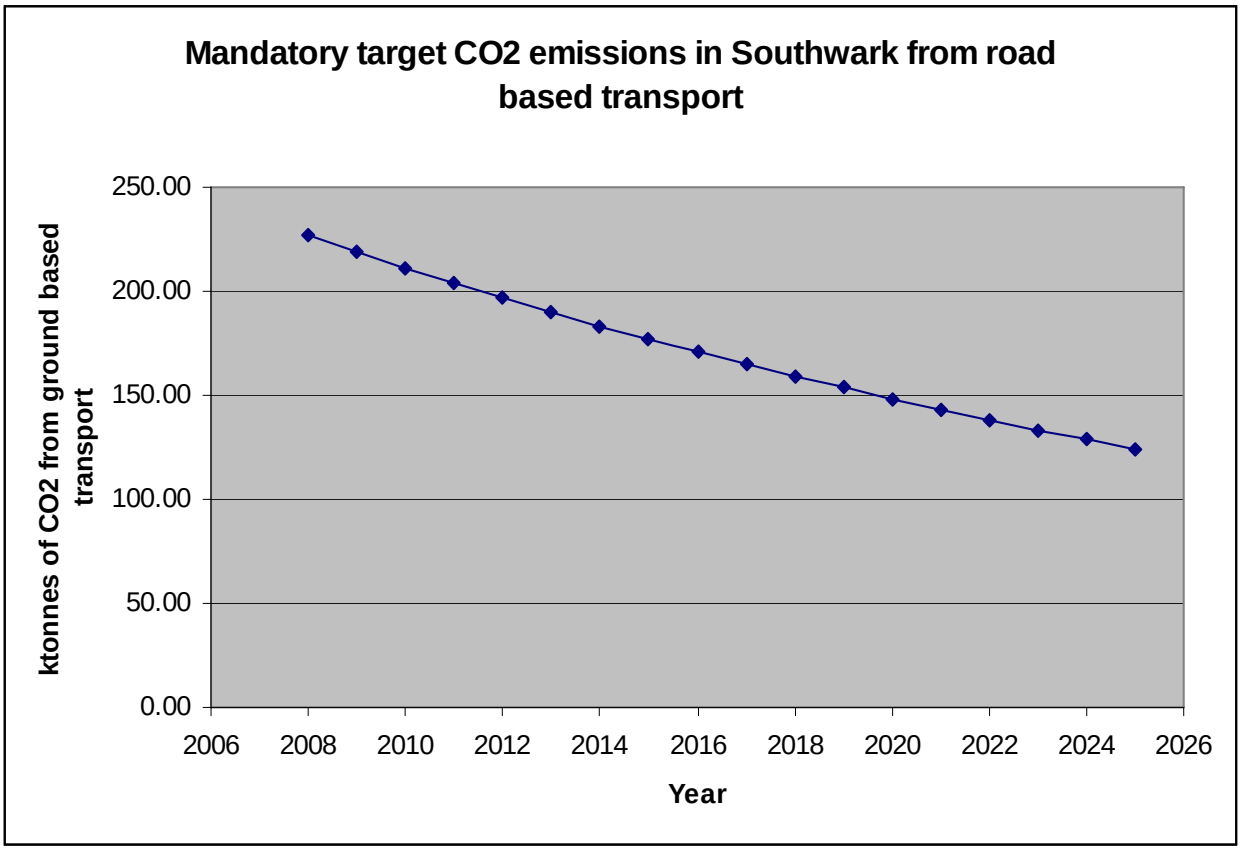
Table 30, CO_2 emissions target

Reduce CO_2 emissions from road based transport from 227kt CO_2 in 2008 to 190kt CO_2 in 2013	
Evidence that the target is realistic and ambitious	Our target for 2013 is an interim target based on the MTS target of a 60% reduction in London's CO_2 by 2025 from a 1990 base. Collection of data for the national indicator 186 (per capita CO_2 emissions) shows that transport emissions have fallen by 6.6% between 2005 and 2008. This is a 2.2% decrease every year whereas our target is slightly more ambitious than this with a decrease of around 3.3% every year from 2008 to 2013.
Key actions for the council	• Continue to implement policies which reduce the need to travel • Support the uptake of sustainable travel through training, awareness and promotion activities • Implementation of electric vehicle charging points as part of a London wide scheme subject to successful trial
Key actions for local partners	Smarter travel interventions require liaison with local schools, workplace travel plans to be promoted within local travel planning groups and developed by local businesses. Corporate working on staff travel plan required. Where appropriate trees will be planted as part of transport schemes.
Principal risks and how they will be managed	Key risks relate to the delivery of the projects and programmes in the delivery plan. Uptake up of electric vehicles is dependent on improved infrastructure as well as being dependent on Government initiatives. Participation in a London wide electric vehicle scheme can minimise the risk of a low take up.

Table 31, CO_2 baseline data with target trajectory

Definition	Base year	Base year value	Target year	Target year value	Trajectory data				Long-term (2025) target
					2010	2011	2012	2013	
% reduction in CO_2	2008	227	2013	190.09	211.45	204.07	196.96	190.09	124.17

Figure 32, Target CO_2 emissions from road based transport



To complement the information sourced from the London Energy and Greenhouse Gas Inventory (LEGGI). Traffic volume data will be used a proxy measure for CO_2, if we assume that as traffic volume decreases so too would CO_2 emissions.

Traffic level reduction target

This target is set to complement the council's CO_2 emissions and mode share targets. If sustainable mode share can be increased, then a corresponding decrease in emissions from road traffic could be projected over the same timescale.

Table 32, Traffic level reduction target

Reduce traffic levels in Southwark by 3% from 2010 to 2013	
Target trajectory	See table 33
Evidence that the target is realistic and ambitious	This target is set to complement the mandatory indicator on CO_2 emissions as well as mode share. If sustainable mode share (walking and cycling) can be increased by 3% then a corresponding decrease in traffic volumes could be projected over the same timescale. This will be measured throughout the borough by monitoring traffic flow at chosen locations across screen lines annually. Figure 28 shows these locations
Key actions for the council	• Continue to implement policies which reduce the need to travel. • Continue to support school and workplace travel plans with the council leading by example and • Developing walking improvements; such as at Lordship Lane, Rye Lane, Copeland and Consort Roads as well as the Walworth and north Peckham areas. • Reprioritisation of road capacity; through schemes such as Grange Road / Southwark Park Road, Peckham Rye South, and Paxton Green.
Key actions for local partners	TfL demand management measures
Principal risks and how they will be managed	Increased development will lead to an increase in demand for travel, this can be mitigated by ensuring that, where feasible, developments are car free and that all developments have robust travel plans in place.

Table 33, Southwark screenline programme

Traffic count screen line	**Traffic flow (both directions) for a "virtual" day**	**3% reduction projected by 2013**
Northern north-south screen line	89,755	87,062
Southern north-south screen line	56,336	54,646
East-west screen line	161,280	156,442

The borough's screenline will be taken annually in October.

Walking mode share target

This indicator measures the proportion of trips made on foot by journeys originating in Southwark. The percentage of walking trips has varied over time reflecting car ownership and usage levels, changes to the public transport services and shifts in community attitudes. Walking levels increased significantly during the 1970's and declined during the 1980's to a low in 1991, since this time they have remained relatively stable.

To help meeting our transport plan objectives we have set an ambitious target of a third of trips being on foot by 2013/14, this will require an increase of 8,000 trips on foot per day.

Table 34, Walking mode share target

Increase the walking mode share in Southwark to a third (33%) by 2013/14	
Evidence that the target is realistic and ambitious	Our target is to increase the walking mode share in Southwark from 31.5% (2006/07/08 3 year average) to 33% by (2011/12/13 3 year average). The trajectory shown in the graph below shows a final target of 36.6% mode share by 2025/2026. We believe that as walking is already a significant proportion of the overall mode share, aiming to increase it to this level is ambitious. This target, together with the cycling mode share target, complements our target for CO_2 reduction and in particular a reduction in vehicular traffic in the borough.
Key actions for the council	• Work with local travel planning groups to increase walking for work purpose • Working with local businesses to develop travel plans and promote sustainable travel • Prioritisation of footway maintenance • Travel plan support and implementation • Work with PCT and GPs to promote walking 'on prescription'
Key actions for local partners	• Local travel planning groups • Business community • PCT and GPs
Principal risks and how they will be managed	There is a risk that improved traffic flow and greater reliability of motorised modes may increase this mode share and therefore reduce walking levels. This will be combated by prioritising walking (as shown in our hierarchy) above all other modes in scheme design.

Table 35, Walking baseline data with target trajectory

Definition	Base year	Base year value	Target year	Target year value	Trajectory data				Long-term (2025/26) target
					2010/11	2011/12	2012/13	2013/14	
Walking mode share	2006/07 - 2008/09	31.5%	2013/14	33.0%	32.1%	32.4%	32.7%	33.0%	36.6%

Figure 33, Walking mode share target

Data source: LTDS

Cycling mode share target

This indicator measures the proportion of trips made on bike by journeys originating in Southwark. The popularity and usage of cycling has increase in the past five years and this target is based on a projected mode share of 5% by 2025/2026.

We have set a local ambition of increasing the proportion of people cycling in Southwark to 4% by 2013/14, this will require an increase of 5,800 trips by bike per day.

Table 36, Cycling mode share target

Increase the proportion of those cycling in Southwark from 2.9% in 2009 (2007/09 average) to 4% by 2013/14	
Evidence that the target is realistic and ambitious	Our long term target is to achieve a 5% cycling mode share by 2025/6. A report by TfL's policy analysis team[52] found that there was significant potential for mode shift to cycling among local residents in Southwark. It was determined that 47% of all trips by mechanised modes could potentially be made by cycle. Our interim target of 4% by 2013/14 is thought to be ambitious but achievable, particularly with the recent introduction of cycle hire, and the existing and forthcoming cycle superhighways in the borough.
Key actions for the council	• Travel plan support and implementation • Work with local travel planning groups to increase cycling for work purpose • Cyclist training • HGV and cyclist awareness campaigns • Work to improve the quality and extent of cycle parking on and off street • Participate in and deliver travel awareness events to promote active travel • Consider the needs of cyclists when developing monitoring programmes • Work with TfL to maximise benefits of the cycle superhighways running through the borough • Improve the permeability of the local road network for cyclists to enhance access to major routes and key destinations
Key actions for local partners	• Local travel planning groups – local encouragement and incentives to start and keep cycling • Employment groups – development of work place travel plans • PCT – continue to deliver health on prescription programme and other initiatives to promote active travel • Police – improve safety and security at cycle parking locations.

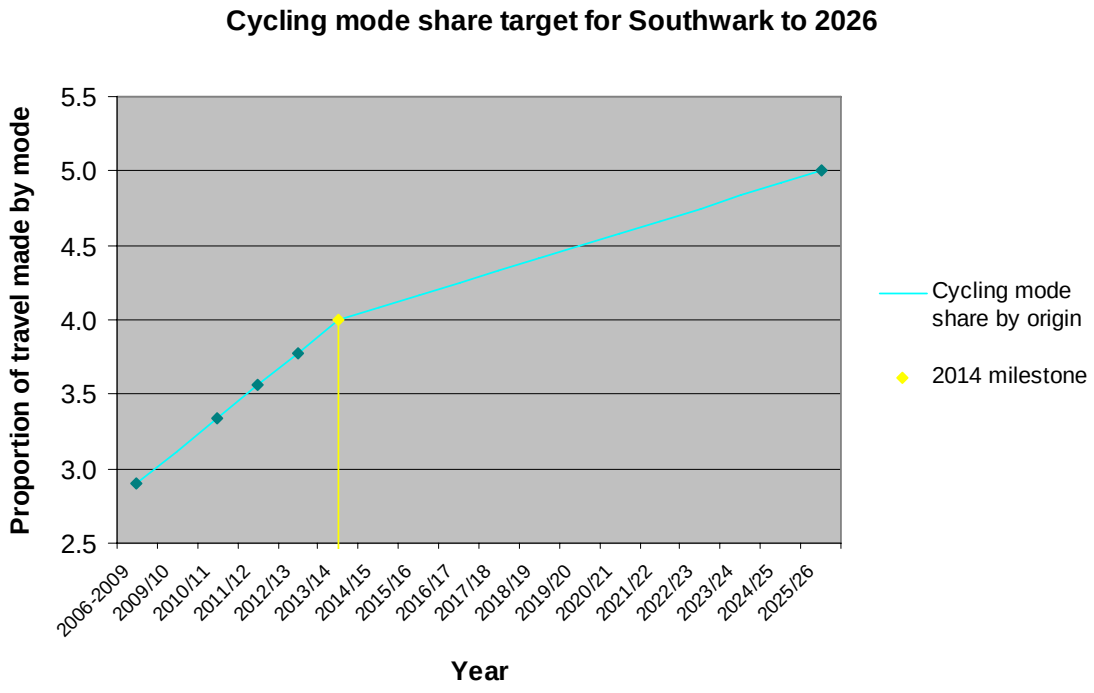
[52] 'Analysis of Cycling Potential' TfL Policy Analysis Research Report, December 2010.

Principal risks and how they will be managed	There is a risk that improved traffic flow and greater reliability of motorised modes may increase this mode share and therefore reduce cycling levels. This will be addressed by prioritising cycling in accordance with the borough's road user hierarchy when designing street improvement schemes. Unusual or extreme weather conditions, such as hot dry summers and snow and ice in winter, may cause increased damage to road surfaces in the borough and across London as a whole. A lower level of funding than anticipated could also severely affect the comfort of cycling.

Table 37, Cycling baseline data with target trajectory

Definition	Base year	Base year value	Target year	Target year value	Trajectory data				Long-term (2025/26) target
					2010/11	2011/12	2012/13	2013/14	
Cycling mode share	2006/07 - 2008/09	2.9%	2013/14	4.0%	3.3%	3.6%	3.8%	4.0%	5.0%

Figure 34, Cycling mode share target



Data source: LTDS

Road safety target

This indicator measures the total number of people killed and seriously injured (KSI) from road traffic collisions and total casualties, as well as all slight collisions.

Table 38, Road safety target

Reduce the number of casualties by 33% by 2020	
Evidence that the target is realistic and ambitious	Reduce the number of killed and seriously injured from 140 (2004/2008 baseline) to 117 (16% reduction) by 2014 (as a 3yr average 2012/2014). Total slight casualties fell from 1,543 in 1994/98 (baseline) to 981 in 2009 (a reduction of 37%). Neither the government nor the Mayor have set new road safety targets for 2010. However the DfT[53] have consulted on a series of national targets, applicable to all local authorities. No targets have been set by the government or the Mayor to reduce the number of KSI or slight casualties. Therefore we have set the following local targets ; • To reduce the total number of causalities by 33% by 2020. • To reduce the number of slight injuries by 33% by 2020 compared with a 2004/08 baseline with an interim target of 17% decrease by 2014. • to reduce the number of KSIs by 33% by 2020 compared with a 2004/08 baseline We consider that this is an ambitious target given that data for KSIs appears to be levelling out.
Key actions for the council	Our actions are: • Travel awareness and road safety promotions and events • Cyclist training for children and adults • Pedestrian training • Speed reduction measures through schemes such as the those proposed in Grange Road / Southwark Park Road, Peckham Rye South, Forest Hill Road, Copeland and Consort, Barry Road and Paxton Green
Key actions for local partners	Over half of all casualties in the borough occur on the TLRN and so TfL has a pivotal role in reducing the number of casualties on these roads.
Principal risks and how they will be managed	An important risk to this target is that increases in walking and cycling may lead to greater numbers of collisions. Pedestrian and cyclist training can help to reduce this risk. There is decreased scope for reducing casualty numbers through engineering measures and so increased emphasis will be given to influencing the behaviour of road users.

[53] A Safer Way: Consultation on Making Britain's Road the Safest in the World, Department for Transport, 2009

Table 39, Casualty trajectory targets

Definition	Base year	Base year value	Target year	Target year value	Trajectory data				Long-term (2018/20) target
					2009/11	2010/12	2011/13	2012/14	
All casualties	2004-08	1,170	2018/20	780	1,072	1,040	1,008	975	780
KSIs	2004-08	140	2018/20	93	128	124	121	117	93
Slights	2004-08	1,030	2018/20	687	944	916	887	858	687

Figure 35, All casualties target

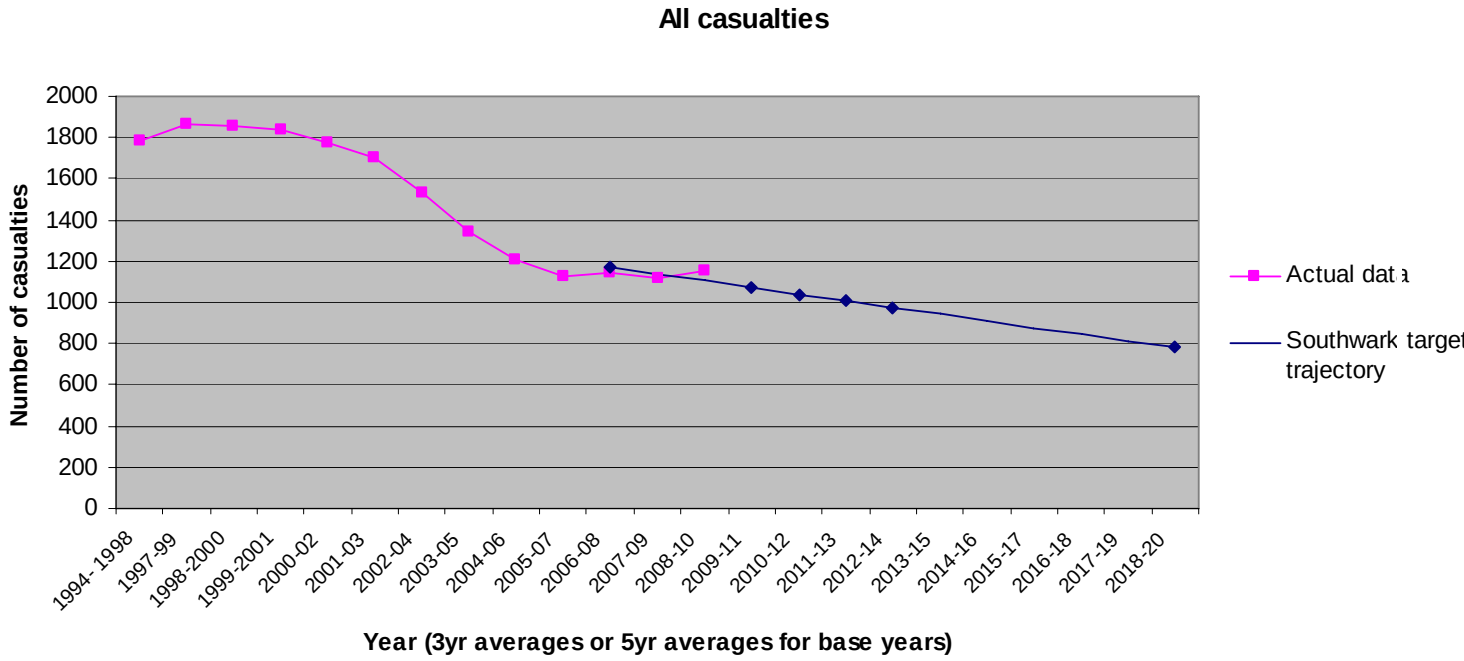


Figure 36, KSI target

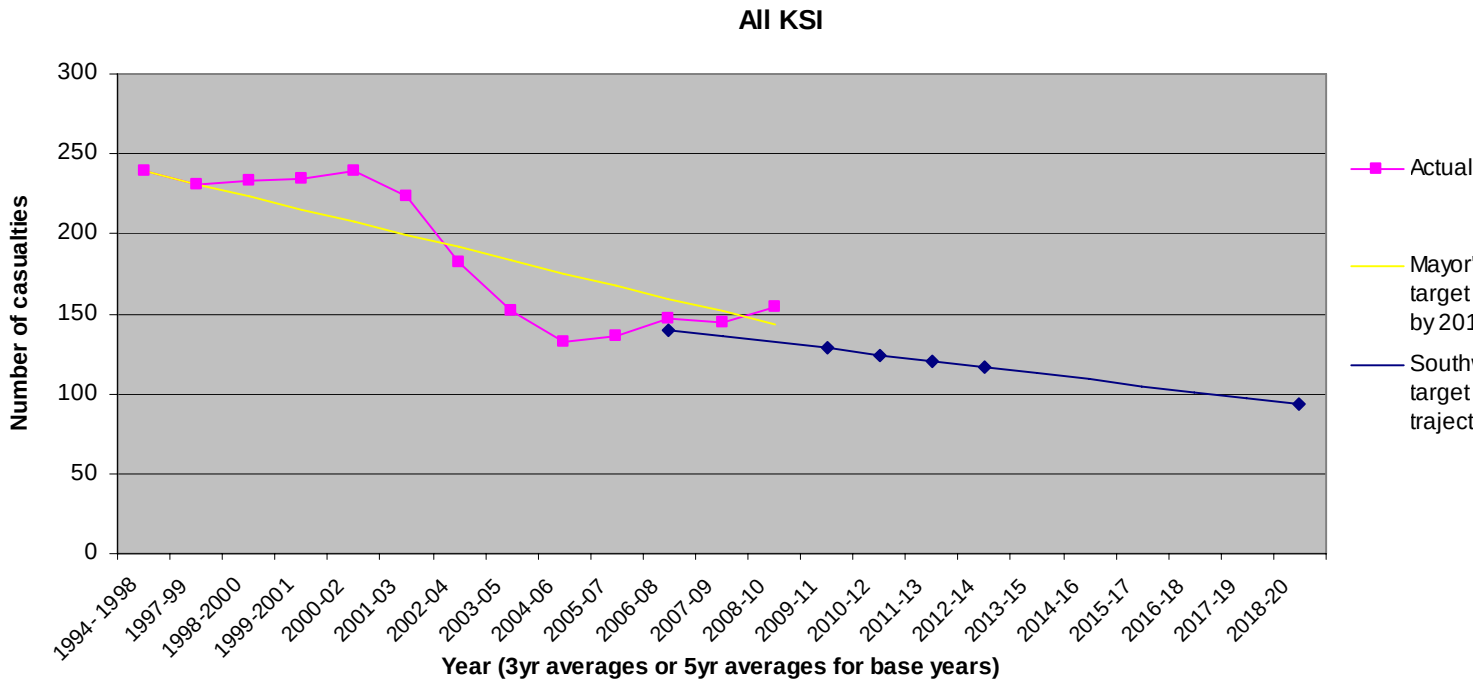
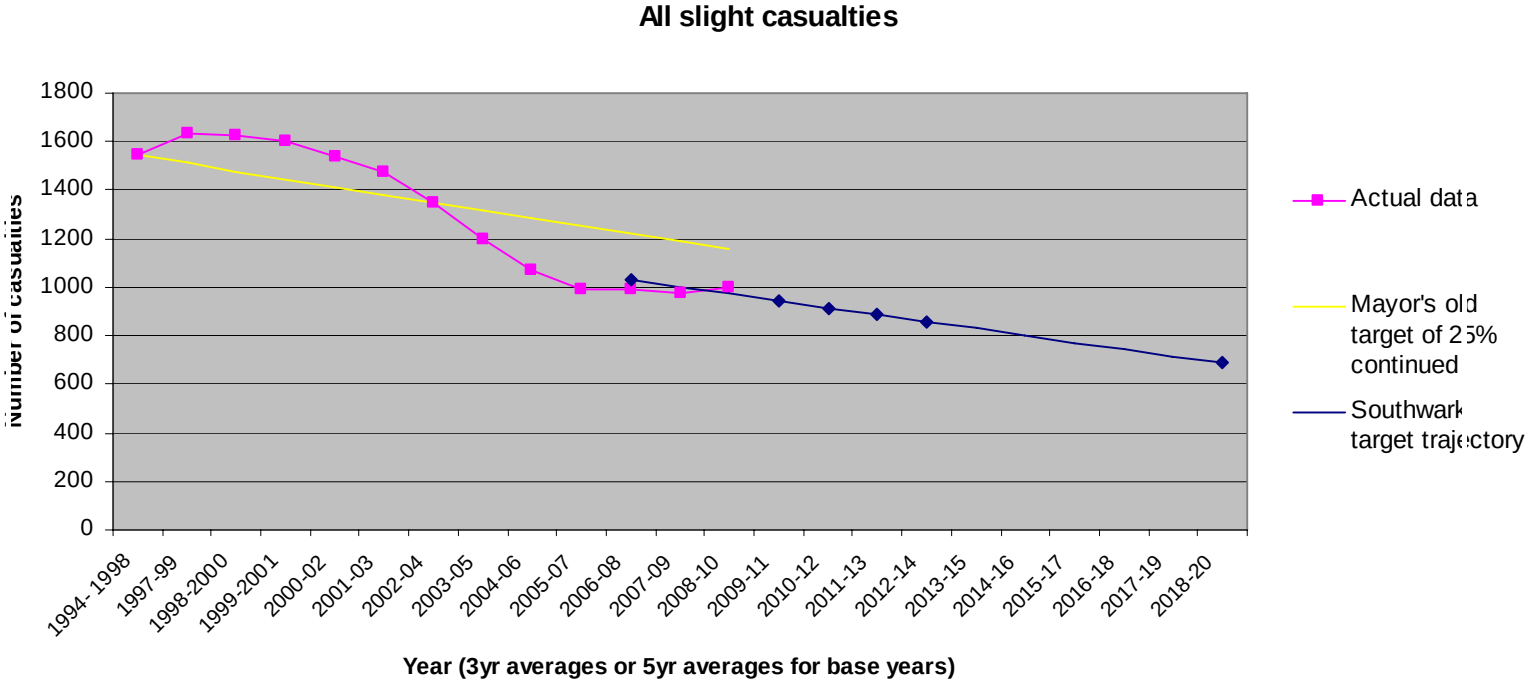


Figure 37, Target for slight casualties in Southwark to 2014.



As shown in figure 38, injuries to cyclists have increased for the fourth year running from a low in 2005. This is a major concern for the council and we have set a target to reduce cyclist casualties.

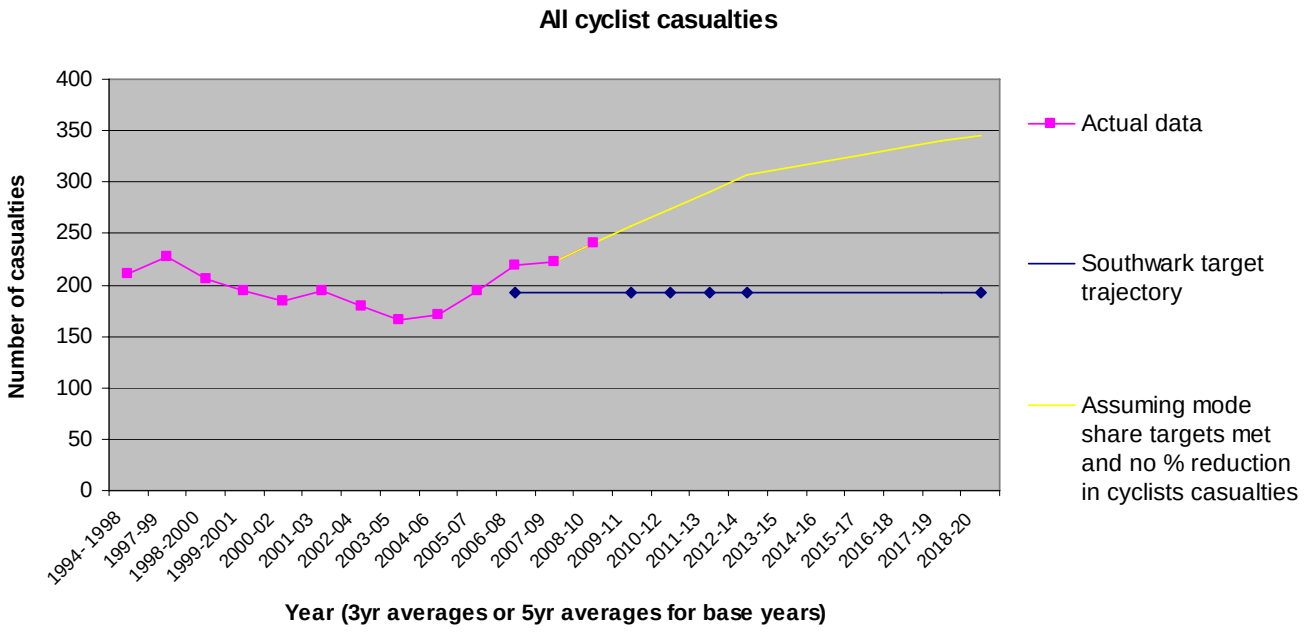
Table 40, Road safety, cyclist casualty target

Reduce all cyclist casualties by 44% by 2020	
Evidence that the target is realistic and ambitious	Our chosen interim target is to reduce the total number of cyclist collisions in the borough from a 2004/2008 baseline by 44% in 2020 given an increase in mode share. This is based on the trajectory for our final target which is a 50% reduction in cyclist collisions by 2026 given an increase in mode share. When developing this target we have considered our ambition to increase the number of cyclists on our roads. The trajectory of this target appears in figure 38 as a straight line on the graph. Also shown on the graph is a projected increase in cyclist collisions if mode share increases to 6% by 2026 and no improvements are made. This interim target will be reviewed in 2014 and adjustments will be made for actual cycle mode share change.
Key actions for the council	Deliver tailored cyclist training Driver training and education HGV and cyclist awareness campaigns
Key actions for local partners	Working with the police on an enforcement programme Over half of all casualties in the borough occur on the TLRN and so TfL has a pivotal role in reducing collisions on these roads.
Principal risks and how they will be managed	Increased exposure to risk as numbers of cyclists increase, mitigated by targeted training of cyclist and awareness campaigns for targeted groups such as HGV drivers.

Table 41, Cyclist casualties' trajectory

					Trajectory data				Long-term (2024/26) target
Definition	**Base year**	**Base year value**	**Target year**	**Target year value**	**2009/11**	**2010/12**	**2011/13**	**2012/14**	
All cyclist casualties	2004 -08	193	2018/20	193	193	193	193	193	193

Figure 38, cyclist casualties



Additional information the council will monitor

To support the information collected and reported as part of the target monitoring, the council also collects the following information to track performance.

Table 42, Annual information collated

Transport Plan outcomes	School hands up surveys (mode of travel to school)
	Annual school census data
	School travel plan progress reports
	% development that has been built complying with car parking standards
	% development that has been built complying with bicycle parking standards
	Amount of approved development in controlled parking zones restricted from having on - street parking permits
	Amount of approved development subject to a travel plan
	Funding gained from planning (S106) agreements for transport
	Travel plan monitoring
	Bus and tube patronage data
	Ofsted reports and school self evaluations

In addition to the monitoring for our Transport Plan targets and the information to be collated above we will also be collecting data for TfL through their output reporting sheet shown below.

Table 43, Output reporting sheet, information required annually by TfL

Description	Unit of data	Number
Cycling		
Cycle parking facilities	Number of on street spaces	
	Number of off street spaces	
Cyclist training	Number of adults	
	Number of children	
Walking		
Protected crossing facilities (e.g. refuges, zebra crossings, pelican crossings etc)	Number	
Guardrail removal	Metres	

Road safety and personal security		
Education and training interventions (e.g. theatre in education or pedestrian training)	Number	
20 mph zones / limits	Number	
Buses		
Bus lanes	Kilometres	0
Accessible bus stops	Number	

Smarter travel		
Development of workplace travel plans and review of existing plans	Number of workplaces	
Annual monitoring of school travel plans	Number of schools	
Walking promotions (e.g. Number of schools participating in 'Walk on Wednesdays'	Number of schools	
	Number of workplaces	
	Number of events	
Cycling promotions (e.g. Number of events during Bike Week)	Number of schools	
	Number of workplaces	
	Number of events	
Smarter driving (i.e. Eco-driving), greener vehicles, liftshare and car club promotions	Number of events	
Public transport promotions (e.g. Freedom Pass promotions)	Number of events	
Environment		
Electric vehicle charging points	Number on street	
	Number off street	
	Number of workplace	
Car club bays implemented or secured by the borough	Number on street	
	Number off street	
Street trees	Number of new trees planted	

	Number of replacement trees planted	
	Number felled for natural / safety reasons	
	Number felled for other reasons	

Local area accessibility		
Shopmobility or scootability	Number of schemes implemented	
Controlled parking and freight		
New zones implemented	Number	
Waiting and loading reviews	Number	
Cleaner local authority fleets		
European emission standard of fleet for heavy duty diesel-engine vehicles (all vehicles with a gross vehicle weight of 8,800kg or over, including lorries and buses)	Number of Euro II vehicles	
	Number of Euro III vehicles	
	Number of Euro IV vehicles	
	Number of Euro V vehicles	
Electric vehicles in fleet	Number fully electric	
	Number hybrid electric	

The council will monitor the process of the transport plan delivery through a variety of means including the production of an annual report which will track transport trends and our work towards achieving our transport plan objectives, targets and outputs. The report will also collate scheme monitoring and programme delivery through the previous year.

This tracking is complemented by the corporate performance review, particularly focussing on road casualties and the cyclist training programme. Biannually, this information will be reported to the council's Cabinet and published on the council's website.

The transport improvement programme is monitored regularly and reported to the Cabinet Member for Transport, Environment and Recycling. A six month review on progress is also held with the Cabinet Member and any changes to the programme are subject to their agreement.

Appendices

Appendix A: Policy context and issues

Our transport objectives have been informed by, and are consistent with the wider policy context at national, London, sub regional and local level detailed below.

Policy in Southwark

Sustainable Transport Supplementary Planning Document (SPD)

The Sustainable Transport SPD (2010) provides more detailed guidance for developers so that all development is easily accessible and encourages people to walk, cycle and use public transport; as well as reducing congestion and pollution.

Section 106 SPD

Planning obligations or 'section 106 (s106) agreements' are an effective way of securing funds to implement measures to mitigate the impacts of generally acceptable development proposals on the environment, economy and community. Development may put additional pressure on existing infrastructure, such as public transport, schools and health services and create a demand for additional provision.

The s106 SPD provides guidance for s106 planning contributions negotiations. Some standard charges are set out for strategic transport projects. These are a set of general formulae used to establish the amount of contributions that are likely to be sought for a particular type of development. These are often collected from developments that in themselves would not require new facilities but would contribute to a cumulative impact.

Housing Strategy, 2009 to 2016

The strategy sets out the borough's plans for promoting new housing, improving the quality and management of existing housing, addressing the housing needs of the borough, preventing homelessness and eliminating rough sleeping.

Southwark's housing options appraisal in 2006 showed that Southwark could retain both ownership and management of its stock, and meet the Government's Decent Homes Standard by 2010/11. Retention was seen as a positive option.

The overarching vision of this strategy is "To improve residents' lives by providing high quality homes and housing services that promote successful and inclusive communities."

To achieve this, vision four strategic objectives were agreed:

1. Improve the quality of existing housing and use it more efficiently
2. Increase the supply of good quality housing
3. Enable choice while meeting housing needs
4. Prevent homelessness and reduce the use of temporary accommodation.

Economic Development Strategy 2010 to 2016

Southwark's Employment Strategy 2010-2016 states that due to its proximity to the centre of London, Southwark has been able to harness the dramatic growth of the London economy in order to regenerate areas of the borough, and generate significant improvements for local communities and businesses. This has meant that the number jobs and businesses in the borough has expanded rapidly and Southwark has continued to outperform London averages and similar London boroughs. However, despite the large scale growth in jobs, rates of worklessness remain high and unemployment is concentrated among certain groups, particularly in certain localities.

The responsibility for the delivery of the *Southwark Enterprise Strategy 2010-2016* lies with the Southwark Alliance Local Economy Group. The vision of this strategy is: to build sustainable, inclusive and prosperous communities by reducing worklessness and sustaining high quality employment for all Southwark's residents, and; to create a strong sustainable economy, with a thriving network of town centres, built on an entrepreneurial culture.

Southwark's strategic economic development priorities are to

- Tackle the barriers to work faced by priority groups
- Increase business and employer engagement
- Raise skills for sustained employment
- Support existing businesses
- Develop key business districts and town centres
- Increase business start ups

Following the onset of the recession the economic outlook remains uncertain. Major changes are taking place in national and regional policy that affect the planning and delivery of skills development, including the introduction of welfare to work programmes and resulting in a major shift in priorities for business support provision. Businesses are also set to suffer a loss of opportunities from shrinkage in public expenditure. Public sector investment in employment and enterprise initiatives will be limited.

Safer Southwark Partnership Plan (2011/12)

The Safer Southwark Partnership (SSP) is Southwark's combined community safety partnership and drug and alcohol action team. The SSP brings together a range of statutory and voluntary sector services to work together to reduce crime and disorder, reduce the fear of crime and increase health outcomes.

The SSP has agreed a new set of priorities for 2011/12. These were agreed in the context of reducing financial resources and the need to target effectively everything we do, to ensure maximum impact. The new priorities are:

- Reducing harm (including the harm cause by serious antisocial behaviour)
- Reducing offending
- Supporting families and those with multiple disadvantages
- Building sustainable community capacity and public confidence

We have also identified the key crime types that most disproportionately affect Southwark communities. These are:

- Knife crime
- Youth violence
- Domestic abuse
- Alcohol

Home to school transport policy

The council's Home to School Transport Policy sets out the criteria in which the council may provide transport for children with special educational needs, disabilities, or mobility difficulties[54].

Sustainable modes of travel strategy 2011

The Sustainable Modes of Travel strategy (SMoT) is a statutory document that sets out how we aim to help children and young people use sustainable modes of transport safely and easily. We are committed to working with schools, parents, carers, guardians and children and young people, to improve sustainable travel options and promote awareness of the benefits of healthy, active travel.

Towards a low carbon Southwark: Climate Change Strategy (2006)

The council's climate change strategy *Towards a low carbon Southwark: Climate Change Strategy* (2006) aims to achieve an 80% reduction in overall emissions by 2050 (using a 1990 baseline), and states that "by working with TfL and other partners on major transport improvements Southwark should be able to achieve a 50-60% reduction in carbon dioxide from transport within the borough by 2050." Currently 16% of Southwark's CO_2 emissions are from road transport[55].

The following are policies in the climate change strategy which are relevant to transport.

Policy 10	Set targets in the Lip
Policy 11	Promote and enable carbon free modes of transport (i.e. walking and cycling)
Policy 12	Plan developments to minimise private car use
Policy 13	Improve town centre environments and promote local shops
Policy 14	Encourage the take up of alternative fuels and cleaner vehicles and lobby national and London Government to provide incentives for their use

Healthy Weight Strategy 2009 to 2012

This strategy replaces the Southwark Obesity Prevention and Management Strategy and aims to be a coherent strategy for achieving Southwark's healthy weight vision. The document sets out the healthy weight vision, summarises the evidence and the causes of obesity, reviews the current programmes for reducing obesity and sets out the strategic priorities.

[54] Southwark Council and Southwark Primary Care Trust, Home to School Transport Policy 2007/08, 2007

[55] Department of Energy and Climate Change (DECC), used for NI186 target

Sport and Physical Activity Strategy

The strategy which covers a four year period (2009-2013) responds to key issues regarding sport and physical activity in Southwark. Below is the issue and recommendations relating to transport:

Issue	Summary of recommendations
Street scene under utilised and limited active promotion of this as a resource	Additional research to identify suitable walking routes across Southwark; improve the promotion of cycle and walking routes, more detailed mapping of street scene facilities

Open Spaces Study (2009)

In 2009 an open space, sport and recreational facilities study was undertaken and set out the provision regarding size, quality and distribution of open space sites across the borough. The Open Spaces Strategy document presents the quantity, quality, accessibility and design standards for the borough's open spaces, together with an action plan.

The accessibility standard for each type of open space is the maximum length of time it takes any resident to walk to their nearest open space of that type. These times range from 8mins for Local Parks to 25mins to District Parks.

Southwark Biodiversity Action Plan 2006 to 2010

The Southwark Biodiversity Action Plan - Work for Wildlife - outlines how Southwark Council will work with its partners to conserve, enhance and promote biodiversity in the parks and opens spaces for the benefit of residents, visitors and future generations. Work for Wildlife is designed to be a valuable toolkit that provides a unified strategic framework for managing the Borough's natural resources.

Southwark Tree Management Strategy (2010)

The tree management strategy is a policy framework for the trees owned, managed and / or protected by Southwark Council. The tree management strategy sets out a vision for the next five years and explains how Southwark will achieve this vision. It is a reference document for anyone with an interest in Southwark's trees.

Legislation

The Equality Act 2010

The Equality Act brings together nine separate pieces of legislation into one single Act simplifying the law and strengthening it in important ways to help tackle discrimination and inequality. The Act provides a new cross-cutting legislative framework to protect the rights of individuals and advance equality of opportunity for all; to update, simplify and strengthen the previous legislation; and to deliver a simple, modern and accessible framework of discrimination law which protects individuals from unfair treatment and promotes a fair and more equal society.

Disability Equality Duty 2006

The council like all public bodies across Great Britain is covered by the Disability Equality Duty (DED), which came into force in December 2006. The DED is meant to ensure that all public bodies - such as central or local government, schools, health trusts or emergency services – pay 'due regard' to the promotion of equality for disabled people in every area of their work.

Race Relations Amendment Act 2000

The Race Relations Amendment Act 2000 requires all public bodies to examine how their policies, services and practices affect the local community across three overlapping areas of responsibility

- To eliminate discrimination
- To promote equality of opportunity
- To promote good race relations

Disability Discrimination Act 1995

The Disability Discrimination Act 1995 (DDA) seeks to ensure disabled people are not discriminated against when accessing employment, goods and services.

The Act defines disability as a physical or mental impairment which has a substantial and long term adverse effect upon a disabled person's ability to carry out normal day to day activities. In transport terms, this means a substantial and long term adverse effect upon a disabled person's ability to gain access to or travel independently on transport systems.

The DDA sets out clear requirements for the provision of transport services and any barriers, be these physical or attitudinal, that must be removed to satisfy the requirement of this Act. The delivery of more effective and efficient accessible transport services for residents with a mobility need is paramount.

Traffic Management Act 2004

The Traffic Management Act 2004 (TMA) proposes a network management duty on traffic authorities, which would require active and coordinated management of the road network, consistent with wider local, regional and national policies and guidance.

The four cornerstones of the Act are outlined as follows

- Provide for TfL to develop its role as a network manager and empowering TfL to recruit traffic officers to manage planned and unplanned incidents on the trunk road network
- Ensure a coordinated approach, the Act will require local traffic authorities to have someone (the traffic manager) responsible for ensuring they meet a statutory duty to keep traffic flowing on their roads
- Provide a new regulatory regime for utility companies' street works, amending existing legislation to give highway authorities effective controls over those works
- Allow for more civil enforcement of parking and moving traffic offences

Road Traffic Reduction (National Targets) Act 1998

The Road Traffic Reduction Act 1998 (RTRA) places a duty on the borough to assess current levels of local road traffic, forecast future growth in those levels and identify targets for reduction. Southwark Council as an inner London borough has adopted a target reduction of 25% by 2010.

Road Traffic Act, 1988

The 1988 Road Traffic Act, Section 39, puts a 'Statutory Duty' on the local authority to undertake studies into road accidents, and to take steps both to reduce and prevent accidents.

Education and Inspections Act

Section 508A of the Education and Inspections Act 2006 places a duty on local authorities to promote the use of sustainable modes of travel and transport to children and young people. There are four specific elements to this duty

- Assess travel and transport needs of children and young people
- Audit sustainable travel and transport infrastructure
- Develop a strategy that aims to make improvements to sustainable travel and transport infrastructure, addressing the needs of children and young people
- Promote sustainable modes of travel and transport for the journey to schools and other education institutions

Road Safety Act 2006

The road safety act was introduced after the first review of Tomorrow's Roads. The act allowed a raft of new measures to help achieve the road safety targets. These include new penalties for careless, unlicensed, uninsured and disqualified drivers and penalties relating to the use of mobile phones while driving.

Crime and Disorder Act 1998

Section 17 of the Crime and Disorder Act 1998 confers a general duty on Local Authorities to exercise functions with regard to the likely effect of the exercise of those functions and the need to do all that can be reasonably done to prevent crime and disorder in a particular Local Authority's area.

National policy

Creating Growth, Cutting Carbon - Making Sustainable Local Transport Happen, White Paper 2011

This white paper sets the government's vision for a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities. This details the governments intention to promote sustainable transport solutions.

Government's Motorcycling Strategy

The theme of this strategy is to support motorcycling as a choice of travel within a safe and sustainable transport framework. The strategy represents an important step in recognising the special needs of motorcyclists and its growth is usage.

The strategy covers a whole range of issues including suitable infrastructure, traffic management measures, motorcycle design, safety issues including improved training and taxation. It takes account of the recommendations made to government by the advisory group on motorcycling.

Child Road Safety Strategy (2007)

DfT's child safety strategy sets out what will be done to improve road safety for children aged up to 15 to help meet the 2010 casualty reduction target, identifying priority areas and giving a plan for further actions. Particular actions refer to training, lifelong learning, education, publicity, engineering and environmental themes.

Active Travel Strategy

The Active Travel Strategy was produced in February 2010 by the Department for Transport (DfT) and Department for Health and sets out the Government's vision and existing programme for promoting active travel and supporting better local delivery of active travel with the aim of making walking and cycling the natural choice for many short journeys.

National Institute for Health and Clinical Excellence (NICE) public health guidance

A series of guidance has been produced for a range of topics including several which relate to transport including; cardiovascular disease, work place health promotion and promoting and creating built or natural environments that encourage and support physical activity. The guidance is for government, the NHS, local authorities, industry and all those whose actions influence the topic.

New Horizons Confident Communities, Brighter Futures

Published by the Department of Health (mental health division) in March 2010 this report sets out the argument and evidence base for prioritising well-being, and provides a systematic approach to improving mental well-being with selected evidence-based approaches and interventions that have been shown to be effective across the life course, and across key public health domains.

The Great Outdoors: How our natural health service uses green space to improve well being (National action report):

This report, written by the Faculty of Public health in association with Natural England, argues that green space can play an important part in tackling a range of health and social problems – obesity, cardiovascular disease, mental ill-health, antisocial behaviour, and health inequalities. It outlines the evidence that the natural environment can enhance our health and wellbeing, and explains how town planners, health professionals, policymakers and people themselves can work together to create more green space and make better use of it for the benefit of all.

Cardiovascular Disease and Air Pollution

This report was completed by the Committee on the Medical Effects of Air Pollutants (COMEAP) for the Department of Health (DH) in 2006 to give advice on the possible effects of outdoor air pollutants on cardiovascular disease in the UK. The Committee formed a subgroup which reviewed the literature in detail and drafted the report. This included a systematic review on a range of scientific studies and analysis of the relevant data available.

Regional policies

Mayor's draft Climate Mitigation and Energy Strategy

The Mayor's draft *Climate Change Mitigation and Energy Strategy* (2010) considers a change to how energy is produced and commits to the London wide target of reducing CO_2 emissions by 60% by 2025 (using a 1990 baseline). The three policies in the strategy relevant to transport are:

- Policy 10: Minimising CO_2 emissions through a shift to more efficient modes of transport
- Policy 11: Minimising CO_2 emissions through more efficient operation of transport
- Policy 12: Minimising CO_2 emissions from transport through the use of low carbon vehicles, technologies and fuel.

Mayor's draft Climate Change Adaptation Strategy

The Mayor's draft *Climate Change Adaptation Strategy* (2010) details how London can best prepare for a changing climate by adapting homes, communities and lifestyles. The key actions proposed are to improve understanding and management of surface water flood risk, an urban greening programme (to increase the quality and quantity of green space and vegetation) to create a buffer from floods and hot weather, and to retro-fit up to 1.2m London homes (by 2015) by improving the water and energy efficiency of them.

Economic Strategies

The Mayor's *Economic Development Strategy* 2010, sets out a vision with respect to the London economy, and how it can be realised. The Mayor's ambitions are for London to be the World Capital of Business, and to have the most competitive business environment in the world; to be one of the world's leading low carbon capitals, for all Londoners to share in London's economic success and for London to maximise the benefits of the 2012 Olympic and Paralympic games. Objective 3 of this strategy is "to make London one of the world's leading low carbon capitals by 2025 and a global leader in carbon finance."

London Freight Plan (2008)

The *London Freight Plan* (2008) identifies that the planned growth of London will lead to a 15% increase in demand for freight and servicing by 2025. Without intervention this increase would have a severe impact on congestion, air quality and climate change. Freight distribution needs to become more sustainable. Sustainable freight distribution can be measured using the following indicators taken from the London Freight Plan:

- Total number of commercial vehicle related PCNs per million freight vehicle kms
- Overall reliability measure for freight
- Emissions impact of road freight vehicles: CO_2, NOx and particulates
- Freight fly tipping incidents
- Overall number of killed and seriously injured in collisions involving freight vehicles
- Number of thefts linked to freight activities on London's Roads

Based on 2006 data, the estimated contribution from freight transport in London is 2.2m tonnes of CO_2 emissions, which accounts for 23% of the total ground based transport and 5.1% of the Capital's CO_2 production and energy use. The plan states that up to 1.21m tonnes per year of CO_2 could be saved by 2025. This is based on detailed analysis which took place following the production of the Mayor's *Climate Change Action Plan* (2007)[56].

Electric Vehicle Delivery Plan (2009)

The Electric Vehicle Delivery Plan outlines a comprehensive strategy to stimulate the market for electric vehicles in London. The plan also aims to increase the number of benefits of electric vehicle ownership and to communicate their social, economic and environmental potential. Through addressing infrastructure, vehicles; and providing incentives, marketing & communications.

The plan sets an ambition of to deliver a network of 25,000 charging points across London by 2015.

[56] Note that both the London Freight Plan and the Climate change Action Plan were published under the previous Mayor and so both take into account the previous Mayor's Transport Strategy.

Appendix B: Equality Analysis, scoping report

The key issues of this Equality Analysis include improving accessibility to services and improving employment opportunity. Road safety and personal security are key themes. The management of road space and its allocation between different road users and between different functions is also a key consideration.

Stage 1: Scoping

1. What policy/strategy is this equality analysis considering?
The Transport Plan sets out how we will improve travel to, within and from the borough and contribute to wider economic, social and environmental objectives of the council. The Transport Plan sets out our long term goals and transport objectives for the borough (up to 20 years), a three year programme of investment, and the targets and outcomes we are seeking to achieve. The Transport Plan responds to the revised Mayor's Transport Strategy (MTS), the emerging Sub-Regional Transport Plans (SRTPs), Southwark's Sustainable Community Strategy, and other relevant policies. The Transport Plan, incorporating Southwark's Local implementation plan (Lip), is a statutory document, prepared under Section 145 of the Greater London Authority Act 1999, which sets out how a London borough proposes to implement the Mayor's Transport Strategy in its area, as well as other locally and sub-regionally important goals. Southwark's Transport Plan will replace the borough's first Local implementation plan (2006).

2. Is this a new or an existing policy/strategy?
The Transport Plan is the successor document to the Local implementation plan (Lip) adopted in 2006. An Equality Impact Assessment was prepared as part of the Lip.

3. If existing, has the policy/strategy already been reviewed under the previous Equality Impact Assessment programme? If so, what were the findings to come out of this and has the agreed action plan been implemented? What has changed since the last assessment was undertaken (in terms of context, nature of the policy/strategy or the type of people affected by the policy/ strategy).
An EqIA was carried out in 2005/06 for the council's Lip. The assessment found that measures included within the Lip would broadly have a positive impact on reducing discrimination, promoting equality of opportunity and promoting good relations between different groups. Particular issues to address were identified as cultural / language barriers, provision for older people and those with disabilities and personal safety generally. A number of related actions have been carried out during the life of the Lip e.g. accessibility and public realm improvements, and these are considered to have had a positive impact. Many of the issues identified, however, remain relevant considerations and have been carried forward to this equality analysis.

4. What do you think are the main issues for your policy or strategy in relation to equality, diversity and social cohesion?

The issues identified below are based on our experience of delivering transport interventions over a number of years. They are also informed by data we have gathered and collated in our transport evidence base e.g. the profile of individuals taking up the offer of free cycle training or of those that are involved in road collisions. We have also drawn on relevant research findings as well as the results of public consultation (formal and informal). Specifically, consultation with equalities groups highlighted economic barriers to mobility, the need for tailored training programmes and the issue of insecurity, particularly in relation to the attitudes of public transport staff and users. We have considered the eight protected characteristics of the Equality Act 2010 where relevant.

Taking social and cultural factors into consideration

One of the key aims of the Transport Plan is to encourage people in Southwark to travel sustainably e.g. avoid private car trips and use public transport, walk or cycle instead. This key message may be interpreted differently by different sections of the community according to social and cultural factors; some seeing the benefits for themselves, others seeing a potential threat to their established travel behaviour.

As well as practical considerations, the way people choose to travel may reflect the way they see themselves. For example, for some groups the ownership of a car is seen as a natural aspiration and the use of other modes, such as public transport may have a culturally negative association. Where attitudes vary between different social groups there is a danger that resources may be deployed in such a way so as to favour one group over another. For example considerable resources have been invested in promoting cycling, but the majority of cyclists remain young, white males. Older people, minority ethnic groups and women are under-represented. Of course many of the reasons for this are likely to be practical, such as concerns about safety, but the role of social and cultural factors also needs to be acknowledged.

Addressing economic inequality

As well as social factors that may result in transport initiatives having a differential impact on different groups, economic factors may present a barrier to the benefits of those initiatives being enjoyed by all. Some policies may have unintended consequences in this area. For example, the council may wish to promote the use of ‘green’ vehicles, such as electric cars or conventional cars with low emissions. The use of incentives such as discounted parking may encourage the use of such vehicles. There is a danger, however, that these opportunities will only be available to those who can afford them and that a ‘two tier’ system of charges may develop. This is a particular issue around investment in electric vehicle infrastructure which will primarily benefit advantaged socio-economic groups and this must be weighed against potential benefits experienced by all, such as improved local air quality. On a more straightforward level, while the council wishes to encourage the use of public transport, the affordability of these services may restrict the ability of some groups to use them.

Fair distribution of resources

The availability of funding to deliver improvements as part of the Transport Plan is sometimes restricted to particular geographical areas and this can result in unequal impacts across the borough which may disadvantage certain groups. For example, funding the council receives from developers is often concentrated in the business district to the north of the borough. The restricted availability of such

funding may prejudice certain groups or communities who live outside of those areas.

Safety and security for all

How safe we feel in our own community is key to encouraging more people to walk, cycle and use public transport and is at the heart of the Transport Plan.

Factors such as age and level of deprivation can increase the risk that people face on our roads and this is a key issue. For example, the young (under 16) tend to be more vulnerable on our roads, and are more likely to be on our streets than other age groups.

Feelings of insecurity are sometimes a factor in travel choices and can have a differential impact for certain groups. For example, women are more likely to rely on bus services and so any real or perceived threat to the security of bus users will have a disproportionate effect on that group.

The way we design our streets can have an impact on actual and perceived safety. For example, 'shared space' or 'shared surface' designs often seek to increase pedestrian priority by blurring the distinction between carriageway and footway. Any such designs, however, need to fully consider the needs of those users who rely on a clear physical transition between 'safe' areas and areas where vehicles may be present.

Access to opportunity for all

The Transport Plan seeks to improve access for all and to remove barriers to access experienced by some groups. As well as access to employment, this includes access to educational, social and cultural opportunities.

Some parts of the public transport system in Southwark effectively exclude certain users who cannot physically access the services provided. When promoting the use of public transport, the plan must identify ways around these barriers (often outside the council's control), while continuing to lobby for their removal.

As well as physical barriers, the journey experience can also deter some users; the level of comfort provided and the attitudes of staff and fellow passengers may significantly affect people's decision to travel. Increasing access to opportunity can have unintended consequences. For example, freedom passes (free travel cards) operate during off peak hours which means that older people are often travelling home at school leaving time, creating conflict with school children. This can mean that older people become more reluctant to travel and therefore more isolated.

A lack of skills or confidence can deter people from travelling and training may be required to help overcome such barriers. Mobility training can be specifically targeted at certain groups to good effect, but we need to consider the inclusiveness of some initiatives. For example, in offering free cycle training, is provision identified for disabled people to participate?

Stage 2:Assessment of impacts

1. What is the overall purpose of the policy/ strategy?

The policies, programmes and initiatives within the Transport Plan are intended to help achieve a sustainable future for the borough. At the heart of the plan we focus on improving people's health and wellbeing, job opportunities and working together to build a better place.

2. What are its aims?

The Transport Plan contains the following eight objectives for the improvement of transport within the borough:

1. Manage demand for travel and increase sustainable transport capacity
2. Encourage sustainable travel choices
3. Ensure the transport system helps people to achieve their economic and social potential
4. Improve the health and wellbeing of all, by making the borough a better place
5. Ensure the transport network is safe and secure for all and improve perceptions of safety
6. Improve travel opportunities and maximise independence for all
7. Ensure that the quality, efficiency and reliability of the highway network is maintained
8. Reduce the impact of transport on the environment

3. Could these aims be in conflict with the council's responsibility to:

- Eliminate discrimination
- Promote equality of opportunity
- Promote good relations between different groups

The Transport Plan seeks to actively address with the council's responsibilities to eliminate discrimination, promote equality of opportunity and promote good relations between the different groups. We do not believe that any of the objectives identified above are in conflict with these responsibilities, although we are mindful of the need for careful monitoring to ensure that the projected benefits are shared in a proportionate way across the community.

4. Does the documentation relating to this policy/strategy include specific reference to the council's responsibility (as set out above) and a commitment to work to meet this?

Yes. Specific reference is made to the following legislation:

The Equality Act 2010

5. What information do you collect to monitor the impact of this policy/strategy on different groups?

We will monitor specific targets as set out in Section 7 of the Transport Plan. We will also publish an annual monitoring report collating all available data on the impacts of the plan and identifying general travel trends within Southwark. This will include an assessment of any variation of impacts across different groups. Examples of equality analysis monitoring include the profile of participants in sustainable travel promotions and activities and the level of accessibility achieved – in terms of physical access to buses for instance. More details can be found within the Transport Plan.

6. What changes could you make to either the policy/strategy itself or the way it is applied to improve the positive outcomes for all groups and to reduce or eliminate any negative outcomes?

The plan contains a comprehensive monitoring framework that should promptly identify any shortcomings or negative outcomes for particular groups. Any deficiencies identified will be addressed as appropriate by changes to interventions designed to meet our objectives.

Appendix C: Health Impact Assessment

Southwark Transport Plan – Health Impact Assessment

www.southwark.gov.uk

The Transport Plan

Southwark's Transport Plan sets out how the council aim to improve travel to, from and within the borough. The plan also shows transport's contribution to the council's wider economic, social and environmental objectives. The plan sets out long term goals and transport objectives for the borough (up to 20 years), a three year programme of investment, and targets and outputs that will help track progress.

In preparing the Transport Plan, we have completed a strategic environmental assessment, equality impact assessment and a health impact assessment. This is to ensure that our proposals do not result in harm to the environment, discrimination or unfair treatment of equality groups[1] and that they promote the health and well being of the community.

Health impact assessments

Health impact assessment is defined as: "A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population[2]". As well as considering any positive and negative health impacts of a proposed policy, this means identifying any unintended health consequences. It also involves an analysis of who will be affected and whether some will be affected more than others.

Each step of the assessment process requires judgements to be made and these should be backed up by evidence and research findings. We have summarised the evidence base for our judgements in Appendix A at the end of this document.

[1] Equalities groups covering race, gender, health, disability, socioeconomic, sexual orientation, age, religion or belief.

[2] Lehto & Ritsatakis, 1999

What is health?

Health is defined by the World Health Organisation as: “A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity[3]”. In this assessment, both physical health and wider issues of wellbeing are covered.

Social, economic, environmental and cultural factors directly and indirectly influence our health and wellbeing. This includes diet and exercise, where we live and work, social relationships and connections we have with other people and organisations.

People who experience material disadvantage, poor housing, lower educational attainment, insecure employment or homelessness, are among those more likely to suffer poorer health outcomes, compared with the rest of the population[4].

The process

The Department of Health identify five stages in the health impact assessment process, as follows

Stage 1: Screening

Stage 2: Identify health impacts

Stage 3: Identify impacts with important health outcomes

Stage 4: Quantify or describe important health impacts

Stage 5: Recommendations to achieve most health gains

The first stage, screening, assesses whether the policy will have any direct or indirect impacts on health or well being. If no impacts are found then this is the end of the process. Assuming impacts are expected, then stage two lists all of these. Stage three then considers whether any of the impacts identified have serious implications for health and wellbeing. If this is the case, then stage four investigates these serious impacts. Stage five makes recommendations to minimise any negative impacts and maximise positive ones.

Stage 1: Screening

In order to consider whether the Transport Plan is likely to have any health impact, we looked at each transport objective contained within the plan. We assessed each objective against a number of criteria: Whether the impact was positive or negative; whether it was direct or indirect; whether it would affect physical health and/or wider issues of wellbeing; and how the impact would be spread across the community. Table 1 below shows the results of this screening process.

We found that none of the transport objectives would have an overall negative impact. We expect all but one to have a positive impact, with the remaining objective being neutral. Positive impacts we found related to both physical health and wider wellbeing. In some cases, we found that the distribution of impacts was likely to be unequal across the community.

Table 1: Screening

[3] World Health Organisation, 1948

[4] Health impact assessment of government policy: A guide to carrying out a Health Impact Assessment of new policy as part of the Impact Assessment process. Department of Health, July 2010

Policy objective	Health impact					Impact type		Impact distribution		Notes
	Positive	Negative	Neutral	Direct	Indirect	Health	Well being	Population	Equalities groups	
Ensure that the quality, efficiency and reliability of the highway network is maintained			✓					Part	✓	Reduced congestion may lead to reduced emissions and therefore an increase in air quality, but could also lead to higher speeds and increases in traffic flows. Parking policy assists disabled drivers. Affects all road users, but may be of disproportionate benefit to vehicular users, both public and private.
Manage demand for travel and increase sustainable transport capacity	✓				✓	✓	✓	Part		Indirect impacts from traffic management and increased likelihood of walking and cycling. Could have negative impact if access to services is reduced for equality groups who rely on cars
Encourage sustainable travel choices	✓			✓		✓		Part		Direct benefits through increased physical activity, reduced emissions and less stress. More affluent groups may be over-represented in benefits.
Ensure the transport network is safe and secure for all and improve perceptions of safety	✓			✓		✓	✓	Whole	✓	Direct health benefits in terms of reduction in accidents. Equalities groups are disproportionately affected by safety issues
Improve travel opportunities and maximise independence for all	✓				✓	✓	✓	Whole	✓	Access to health services specifically affects outcomes. Travel independence can enhance well being.
Reduce the impact of transport on the environment	✓			✓	✓	✓		Whole	✓	Air quality has direct impact on respiratory and cardiovascular diseases. Older people, those with respiratory diseases and those living in areas of deprivation are more acutely affected. Indirect impact though effects of extreme weather

Policy objective	Health impact					Impact type		Impact distribution		Notes
	Positive	Negative	Neutral	Direct	Indirect	Health	Well being	Population	Equalities groups	
										events linked to climate change. Distribution of emissions is unequal, with those who emit least, likely to suffer most.
Ensure the transport system helps people to achieve their economic and social potential	✓				✓		✓	Part	✓	Reductions in social exclusion and more equal income distribution has positive effect on well being
Improve the health and wellbeing of all by making the borough a better place	✓				✓	✓	✓	Whole		Improved street design and road user behaviour increases social cohesion and reduces stress levels. More active travel helps reduce obesity. Reductions in noise and air pollution have positive health impacts.

As we didn't find any negative impacts associated with the transport objectives, it was not considered strictly necessary to complete the next stage of the health impact assessment. However, we decided that we should review how these broad objectives might be delivered in practice and any negative impacts linked to delivery. We also wanted to look at how we could maximise the positive impacts we found. For this reason, we decided to proceed to stage two and prepare a long list of all potential impacts that might result from delivering the objectives considered above.

Stage 2: Identify health impacts

To give some structure to this stage, we chose a simple framework. This was based on previous research around factors affecting health, developed by Whitehead and Dahlgren[5]. They identified a number of categories affecting an individual's health and well being. Of these, we chose lifestyle, community, local economy, activities, the built environment and the natural environment.

Table 2 below groups impacts we found under these categories.

Table 2: Potential negative health impacts

[5] Whitehead and Dahlgren, The Lancet 1991 (reproduced in DoH guidance)

Lifestyle	Community	Local economy	Activities	Built environment	Natural environment
Diet, physical activity, work/life balance	Social capital, networks	Wealth creation, markets	Working, shopping, moving, living, playing, learning	Buildings, places, streets, routes	Natural habitats, air, water, land
More people using active travel may increase *absolute* number of collisions / casualties for those modes	Greater integration of different road users may lead to increased conflicts	Parking restrictions and local congestion may adversely affect some businesses	Encouraging use of public transport may lead to overcrowding increasing stress levels	Disruption and potential hazard during physical improvement works	Air quality likely to remain poor by busy routes
Reducing the need to travel may reduce physical activity and encourage sedentary lifestyles	Promotion of specific modes, such as cycling, may exclude certain sections of the community	Economic cost of congestion affects viability of local businesses Poor journey experience at peak times affects travel to work	Disincentives to car use may frustrate aspirations to drive / increase feelings of injustice or inequality	Lack of resources may lead to inequalities between different areas and frustrate local aspirations	Construction materials are a finite resource and may have negative impacts during extraction, transportation and deployment
Promotion of 'sustainable' lifestyles may lead to health inequalities due to patchy take-up	Strategic policies may not match needs of whole community e.g. those who rely on private car travel may oppose traffic calming measures	Stricter parking and loading restrictions may adversely affect deliveries and loading to some businesses	Journey delays and local congestion may cause stress and hardship	Traffic calming measures may cause discomfort for some road users travelling over them	
	Scheme proposals may be divisive with 'winners' and 'losers'			Pedestrian routes may be adversely affected by requirement to keep traffic moving	
	Requirement to keep traffic moving may lead to community severance, especially where residential areas adjoin busy routes			Increased density of development may lead to greater demand on currently stressed public transport and/or parking overspill, causing stress and frustration	
	Managing traffic onto main routes may increase severance for communities affected.				
	Lack of fully accessible public transport system reinforces inequalities				

Lifestyle	Community	Local economy	Activities	Built environment	Natural environment
Diet, physical activity, work/life balance	Social capital, networks	Wealth creation, markets	Working, shopping, moving, living, playing, learning	Buildings, places, streets, routes	Natural habitats, air, water, land
	Feelings of exclusion from the decision making process can lead to stress and resentment				

Many of the impacts identified above relate to possible unintended consequences that may result from Transport Plan initiatives. For example, reducing the need to travel may have a positive impact in terms of promoting work / life balance and reducing stress caused by overcrowding on public transport. However, if people no longer need to leave the house to go to work, this may lead to reduced physical and social activity.

Another key group of impacts relate to the difficulties of reaching all groups within the community, particularly with regard to promoting sustainable travel. For example, promoting walking and cycling may exclude certain sections of the community for whom this may not be physically possible, or for whom the message may not appeal.

A third area relates to initiatives which involve a trade-off between one group of road users and another. For example, the introduction of traffic calming measures is generally well supported by the local community who wish to see reduced traffic speeds where they live. On the other hand, some people living nearby road humps report increased noise and some travelling over them report discomfort.

Finally, there are a number of areas where regional policies may conflict with local policies. For example, the Mayor of London's policy to 'smooth traffic flow', particularly on major routes, may make it more difficult to deliver improvements for vulnerable road users such as pedestrians.

As a number of health impacts were identified at this second stage, we now moved on to the next stage in order to assess how important these were likely to be.

Stage 3: Identify impacts with important health outcomes

Based on Department of Health guidance, we considered that important health impacts would have the following characteristics

- Impact on specific age groups, ethnic groups, religious groups or socioeconomic groups
- Be difficult to remedy or have an irreversible impact
- Be medium to long term
- Cause a great deal of public concern
- Have cumulative impacts

Table 3**Error! Reference source not found.** below shows the results of this analysis. In cases where the identified issue matched all or most of the characteristics listed above then we considered the impact to be important, unless there were any mitigating circumstances.

Table 3: Important health outcomes

Identified impact	Answering yes to these questions indicates that this may be an important health impact.					Important impact?	Notes
	Differential impact	Difficult to remedy or irreversible	Medium to long term	Public concern	Cumulative / synergistic	Combining the answers, will there be an important impact on health?	
More people using active travel may increase *absolute* number of collisions / casualties for those modes	✓	✗	✗	✓	✗	✘	Specific groups are more likely to be involved in road traffic collisions. The benefits of physical exercise are thought to outweigh the risk of involvement in traffic collisions. As greater numbers take up active travel the accident rate is likely to diminish ('safety in numbers')
Reducing the need to travel may reduce physical activity and encourage sedentary lifestyles	✗	✗	✓	✗	✗	✘	Greater accessibility to local services (including employment) may result in shorter journeys, but these are more likely to be made using active modes.
Promotion of 'sustainable' lifestyles may lead to health inequalities due to patchy take-up	✓	✗	✓	✗	✓	✘	Affluent groups are more likely to be responsive to sustainable travel messages and this could reinforce existing under-representation of certain community groups. A flexible and targeted approach can address this issue. Linked to next impact.
Promotion of specific modes, such as cycling, may exclude certain sections of the community	✓	✗	✓	✗	✓	✘	Affluent groups are more likely to be responsive to sustainable travel messages and this could reinforce existing under-representation of certain community groups. A flexible and targeted approach can address this issue. Linked to previous impact.
Greater integration of different road users may lead to increased conflicts	✓	✗	✗	✓	✗	✘	Mobility and visually impaired groups, the young and older people may be disadvantaged by some street layouts which do not include physical segregation between users. Context sensitive design as well as user education can help address such issues.

Identified impact	Answering yes to these questions indicates that this may be an important health impact.					Important impact?	Notes
	Differential impact	Difficult to remedy or irreversible	Medium to long term	Public concern	Cumulative / synergistic	Combining the answers, will there be an important impact on health?	
Strategic policies may not match needs of whole community e.g. those who rely on private car travel may oppose traffic calming measures	✓	✗	✗	✓	✗	✘	Difficult to achieve consensus around traffic management measures which tend to polarise views. Needs of essential motorised road users should be accommodated and realistic alternatives offered to non-essential users.
Scheme proposals may be divisive with 'winners' and 'losers'	✓	✗	✗	✓	✓	✘	Although there is generally a trade off between different users and uses, a 'holistic' scheme approach will balance needs as far as possible. Transparency around aims and objectives will help gain broad support for schemes.
Requirement to keep traffic moving may lead to community severance, especially where residential areas adjoin busy routes	✓	✗	✓	✓	✓	✘	Disproportionate impact on areas of deprivation. Prioritise measures to improve local safety and accessibility. Limits to council influence on TfL roads. Ensure that vulnerable road users, including pedestrians are fully considered in traffic management schemes. Linked to next impact.
Managing traffic onto main routes may increase severance for communities affected.	✓	✗	✓	✓	✓	✘	Disproportionate impact on areas of deprivation. In order to protect residential streets from excessive traffic, main routes are expected to carry heavier flows. Resulting issues can be mitigated by local environmental, safety and accessibility improvements.

Identified impact	Answering yes to these questions indicates that this may be an important health impact.					Important impact?	Notes
	Differential impact	Difficult to remedy or irreversible	Medium to long term	Public concern	Cumulative / synergistic	Combining the answers, will there be an important impact on health?	
Air quality likely to remain poor by busy routes which often coincide with areas of deprivation	✓	✓	✓	✓	✓	✓	Disproportionate impact on areas of deprivation. While issues such as air quality along busy routes are difficult to resolve completely, mitigating measures should be put in place. The council's air quality strategy and action plan sets out Southwark's policy to achieve improvements in air quality. The council's ability to influence air quality impacts are limited, particularly where it is not the highway authority.
Lack of fully accessible public transport system reinforces inequalities	✓	×	✓	✓	×	✘	The council's policy of encouraging public transport use may discriminate against those who are unable to access these services. The council lobby for these barriers to be removed, but ultimately does not have control over access improvements. While alternatives, such as taxis to the nearest accessible station may be available, the lack of equity and reduced access to services can affect mental and physical health for those excluded.
Feelings of exclusion from the decision making process can lead to stress and resentment	×	×	×	✓	×	✘	The council consults widely on policy matters, but nonetheless some individuals and groups may feel excluded from the process. Early engagement with stakeholders and the public can help address this issue.
Parking restrictions and local congestion may adversely affect some businesses	×	×	×	✓	✓	✘	Parking policy needs to balance the desire to constrain unnecessary car trips while at the same time allowing vital business functions to continue so that jobs and services can continue to be provided locally, particularly small businesses.

Identified impact	Answering yes to these questions indicates that this may be an important health impact.					Important impact?	Notes
	Differential impact	Difficult to remedy or irreversible	Medium to long term	Public concern	Cumulative / synergistic	Combining the answers, will there be an important impact on health?	
Economic cost of congestion affects viability of local businesses	✗	✗	✗	✓	✓	✘	Travel demand management measures and travel awareness campaigns seek to reduce traffic levels and encourage alternatives to private car use. The importance of local enterprise is recognised.
Delays and congestion may cause stress and hardship	✗	✗	✗	✓	✓	✘	See above.
Disincentives to car use may frustrate aspirations to drive / increase feelings of injustice or inequality	✓	✗	✓	✓	✗	✘	Groups who tend not to have access to a car for economic reasons may be disproportionately affected. The aspiration to own a car is likely to endure. Travel demand management strategies need to recognise this issue and find ways to raise the status of alternative modes.
Disruption and potential hazard during scheme construction	✗	✗	✗	✓	✓	✘	Street works have the potential to pose a direct threat to health, or indirect by forcing road users onto less suitable routes. Good network management and health and safety practice can reduce these impacts.
Lack of resources may lead to inequalities between different areas and frustrate local aspirations	✗	✗	✓	✓	✗	✘	A transparently fair, evidence based approach to scheme selection is required, particularly given increasingly limited resources.
Traffic calming measures may cause discomfort for some road users travelling over them	✓	✗	✗	✓	✓	✘	Little research in this area .Possible disproportionate impact on older people and those with specific health conditions. Vertical traffic calming measures need to be designed and constructed to high standards to minimise any discomfort.

Identified impact	Answering yes to these questions indicates that this may be an important health impact.					Important impact?	Notes
	Differential impact	Difficult to remedy or irreversible	Medium to long term	Public concern	Cumulative / synergistic	Combining the answers, will there be an important impact on health?	
Pedestrian routes may be adversely affected by requirement to keep traffic moving	✓	✗	✓	✓	✓	✘	Disproportionate impact on areas of deprivation. Prioritise measures to improve local safety and accessibility. Limits to council influence on TfL roads. Ensure that vulnerable road users, including pedestrians are fully considered in traffic management schemes.
Encouraging use of public transport may lead to overcrowding increasing stress levels	✓	✗	✓	✓	✓	✘	Promotion of public transport should be balanced with measures to reduce the need to travel and to promote active travel.
Increased density of development may lead to greater demand on stressed public transport and/or parking overspill, causing stress and frustration	✓	✗	✓	✓	✓	✘	See above.
Construction materials represent a finite resource and may have negative impacts during extraction and transportation and deployment	✗	✗	✗	✗	✗	✘	Sustainable procurement policy required to ensure whole life cost and negative externalities of construction are fully assessed and minimised.

Only one of the impacts identified at stage two matched all the characteristics identified above. This impact relates to air quality along heavily trafficked routes, which also often coincide with areas of high deprivation.

The main factor affecting local air quality in Southwark is motor vehicular traffic. A reduction in traffic volume, potentially combined with an increased proportion of less polluting vehicles, would help to improve air quality in affected areas. However, the council's ability to influence traffic levels can be limited, particularly on major routes which the council does not control. These routes are designed to carry higher levels of traffic in order to reduce impacts on lesser roads, including residential streets, and will continue to do so for the foreseeable future.

Complementing the Transport Plan, the council has developed a separate strategy addressing this issue of local air quality – the Air Quality Strategy and Action Plan. This strategy sets out our approach to improving air quality in the borough, including addressing pollution from road traffic.

The remainder of this document concentrates on stage five, covering how we can maximise health gains relating to the Transport Plan.

Stage 5: Recommendations to achieve most health gains

This health impact assessment has so far concentrated on potential negative health impacts relating to the Transport Plan. We have, however, found a number of areas where there are potential positive impacts. These are often the planned consequences relating to the unintended consequences identified above Table 4 below summarises the positive health impacts that we have identified.

Table 4: Positive health impacts

Positive health themes	Impact type		Impact distribution	
	Health	Well being	Population	Equalities groups
Safety in numbers	✓		Whole	
As more people take up active travel (particularly cycling), the accident / collision rate falls				
Active travel and improved health	✓	✓	Whole	
Increased physical activity as part of a daily routine is linked to positive health outcomes				
Reduced stress and anxiety		✓	Whole	
More active travel can relieve pressure on public transport, reducing overcrowding. Exercise can also promote good mental health.				
Reduced conflict between road users	✓	✓	Whole	
Well designed streets and improved journey time reliability can reduce levels of conflict, actual and potential				
Reduced exposure to inappropriate levels of traffic	✓	✓	Whole	
Effective network management routes traffic away from minor roads onto designated routes. Reduces noise and pollution in residential areas.				

Positive health themes	Impact type		Impact distribution	
	Health	Well being	Population	Equalities groups
Increased accessibility to transport and services	✓		Whole	✓
Local accessibility improvements and better access to public transport improve health outcomes				
Increased opportunity for economic activity		✓	Whole	
Improved access to employment and support for local businesses improves life chances and access to services.				
Increased transparency and accountability		✓	Whole	
Early consultation and stakeholder engagement reduces feelings of exclusion and promotes community involvement				
Reduced impact of road collisions	✓		Whole	✓
Lower vehicle speeds reduces the volume and severity of collisions				
Improved local air quality	✓	✓	Whole	✓
Less congestion, reduced vehicle emissions and the greening of streets reduces harmful pollutants				
Improved perceptions of safety and security		✓	Whole	✓
Well designed and maintained public spaces reduce feelings of intimidation and promote inclusive access to the public realm.				

The rest of this assessment looks at how the positive impacts identified above are addressed by the Transport Plan and what we can do to maximise the benefits of those impacts.

Safety in numbers

The presence of more pedestrians and cyclists can have a significant impact on the perceptions of drivers/riders/people and influence them to reduce their speeds and be more aware of other road users. The Transport Plan aims to create an environment which encourages walking and cycling, which in turn will have a positive impact on road safety for all users. The ‘safety in numbers’ effect requires more people to walk and cycle and making this happen requires a targeted approach. In order to make best use of resources, we will focus on those who are more likely to take up walking and cycling, but in order to ensure fairness, we will also try to reach under represented groups and remove any barriers that they face.

Active travel and improved health

We will ensure that infrastructure improvements are targeted for pedestrians and cyclists through our delivery programme. Measures to encourage active travel will include improved accessibility for pedestrians (dropped kerbs, improved crossing points, reduced street clutter etc), increased cycle parking (on street and estates) and general improvements as part of traffic schemes (such as advanced stop lines, reduced street clutter, improved footway surfaces, etc). As well as infrastructure improvements, we will also promote the uptake of active travel through events, promotions, education and training. We can maximise benefits by targeting key walking and cycling links and working with partners such as schools and health providers.

Reduced stress and anxiety

We aim to minimise congestion and over crowding on public transport by lobbying service providers and regional bodies to provide increased capacity and better levels of service. At a local level we will prioritise bus journeys and promote an increased share of trips made by active means, walking or cycling, so as to relieve pressure on public transport.

We will seek to tackle the causes of congestion on our roads and minimise disruption that affects drivers, riders and passengers. We can maximise benefits by linking to active travel initiatives where walking or cycling provide realistic alternatives for existing trips.

Reduced conflict between road users

We will seek to ensure that pedestrians and cyclists can travel through Southwark without conflict between each other or with other traffic. As well as infrastructure measures this will involve training and education of road users. This includes training for those who drive for work purposes including on council business and training for bus drivers. We can maximise benefits by focussing on key areas of concern such as the interaction between cyclists and lorry drivers.

Reduced exposure to inappropriate levels of traffic

We will continue to manage traffic flows according to our road user and road network hierarchies, making sure that traffic on our streets is in proportion to their type e.g. removing heavy traffic from residential streets. The council's Network Management Plan sets out the details of our approach to allocating road space.

Increased accessibility to transport and services

We will seek to improve the streetscape and provide a seamless journey to make the borough fully accessible for all. This involves physical changes such as providing dropped kerbs and tactile paving, working with public transport providers to improve access to their services and delivering independent travel training for those who have difficulty negotiating our transport system. We can maximise benefits by working closely with equalities groups to find out what the key issues are for them.

Increased opportunity for economic activity

As outlined above, increasing the level of accessibility to public transport is essential in helping to improve access to jobs, for all members of the community. We will seek to integrate transport initiatives with employment services outreach work and extend independent travel training to adults with disabilities if travel is thought to be a barrier to accessing jobs.

We will seek to boost the local economy through the reallocation of street space so that it is conducive to shopping and social activities that can contribute to the viability of Southwark's town centres. While these areas need to provide for essential servicing and delivery activity, vehicle access will be managed in order to provide adequate space for pedestrians and to reduce congestion.

Increased transparency and accountability

The Transport Plan and the initiatives included within it will be as transparent and accountable as possible. The plan encourages stakeholder support and gives weight to correspondence from the public and cabinet members, local stakeholders and community councils.

Reduced impact of road collisions

The council seeks to achieve measurable reductions in road casualties and to help make all modes of transport safer. Collisions involving pedestrians tend to be more severe than other modes and 50% of people killed on London's roads are pedestrians. Tackling the source of this threat requires an increase in pedestrian priority combined with reductions in traffic volumes and speeds. We will target at risk groups in order to maximise health benefits.

Improved local air quality

Encouraging sustainable travel choices will help to increase air quality, whilst improving activity levels and public health. The Transport Plan introduces a range of actions it is hoped will improve air quality in Southwark including car clubs, 'eco driving' campaigns, air quality assessments and planting street trees. Further details can be found in the council's Air Quality Strategy and Action Plan.

Improved perceptions of safety and security

As well as making physical improvements to our streets in order to make them safer, we will also work to challenge any negative perceptions of sustainable modes and to address real and perceived issues of personal safety. We can maximise benefits by working with key partners, such as schools, and addressing key issues such as cycle theft and safety on public transport. We will continue to promote community warden schemes that provide a highly visible, reassuring presence, which helps to reduce crime and anti-social behaviour.

Appendix A: Health impact assessment evidence base

Congestion and emissions

A systematic review of the effects of transport pollution found good evidence for an increase in total mortality, respiratory morbidity, allergic illness and symptoms, cardiopulmonary mortality, non-allergic respiratory disease, and myocardial infarction and a possible link to lung cancer. These problems are likely to be exacerbated by rising temperatures from climate change and rapid urbanisation and increasing time spent in congested traffic means that exposure is increasing even where pollution levels are falling.

Reference

Heinrich, J., Schwarze, P.E. and Stilianakis, N *et al.* (2005) Studies on health effects of transport-related air pollution. In: Krzyzanowski, M., Kuna-Dibbert, B. and Schneider, J., Editors, *Health effects of transport-related air pollution*, World Health Organization, Geneva

Congestion and economy

Congestion is perceived as a problem primarily because of the broad range and scale of impacts it imposes on individual travellers, the economy and society – including delays, frustration, pollution and reliability problems amongst others. However, despite the widespread use of the term 'congestion' there is still some ambiguity regarding how this is defined and what constitutes a state of congestion in practice. There is also disagreement on what the actual cost of congestion is - for example estimates for the UK range from £2 billion per year (Dodgson et al., 2002) to the often quoted CBI estimate of £20 billion per year.

Reference

Grant-Muller, S. and Laird, J. (2006) Costs of Congestion: literature based review of methodologies and analytical approaches, Institute for Transport Studies, University of Leeds, for the Scottish Executive Social Research

Safety in numbers (the more people cycle, the safer it is)

Research suggests that a doubling of cycling would lead to a reduction in the risks of cycling by around a third, i.e. the increase in cycle use is far higher than the increase in cyclists' casualties. There are plenty of examples to show that steep increases in cycling can go with reductions in cycle casualties. The Cycle Touring Club (CTC) has found that cycling is safer in local authorities in England where cycling levels are high. London has seen a 91% increase in cycling since 2000 and a 33% fall in cycle casualties since 1994-98. This means that cycling in the city is 2.9 times safer than it was previously. York, the authority where cycling to work is most common, is, by CTC calculations, the safest place in England to cycle. Comparing 1991/3 and 1996/8: mode share for cycling rose from 15% to 18%, cyclist KSI fell 59% (from 38 to 15).

Reference

Safety in Numbers: halving the risks of cycling, Cycle Touring Club, (2009)

http://www.ctc.org.uk/resources/Campaigns/CTC_Safety_in_Numbers.pdf

Equality groups and representation in traffic collisions

In children and adults, road traffic injury rates were higher in 'Black' groups (305 per 100,000 population in children; 617 in adults) and lower in 'Asian' groups (175 in children and 421 in adults), compared with rates in 'White' groups (234 in children and 479 in adults). 'Black' Londoners have been on average 1.3 times more likely to be injured on the roads than 'White' Londoners.

Reference

Steinbach R, Edwards P, Green J, and Grundy C (2007) *Road Safety of London's Black and Asian Minority Ethnic Groups:* A report to the London Road Safety Unit. London: LSHTM.

Levels of risk for different road users / accident rates

The fatality risks per billion passenger-kms are very low for 'public service vehicles' 0.3, whilst the risk for motorcyclists is 111, very much higher than that for car occupants (2.7). The risk to cyclists (36) and pedestrians (46) fall between the two.

Reference

Helman, S., Hunt, M., Kennedy, J. and Taig, T. (2010) *Cross-modal safety: risk and public perceptions*. Transport Research Laboratory.

Exercise and obesity

Obesity is one of many symptoms of poor life style associated with morbidity and mortality. These undesirable health risks can be greatly reduced by physical activity leading to improved fitness. Exercise is one of the ways in which we can cut obesity numbers and improve people's health, along with diet and drinking/smoking.

Reference

Gill, T., Weiler, R, et al *Should health policy focus on physical activity rather than obesity?* BMJ 29 May 2010, volume 340, pages 1170 – 1171

Active travel and improved health

The Government's Foresight Report predicts that by 2050**,** 60% of men**,** 50% of women and 25% of children may be obese. This would cost the UK economy a staggering £49.9 billion per annum with a seven fold increase in NHS costs alone.

Walking and cycling are accessible, affordable ways in which people can reduce their risk from disease. Physical activity can make a huge contribution to maintaining health and wellbeing. Inactive and unfit people have almost double the risk of dying from CHD compared with more active and fit people. Active people are half as likely to develop type II diabetes, high blood pressure can be both prevented and treated by physical activity and low levels of physical activity can increase the risk of certain cancers. Physical activity is also effective as a treatment of mild, moderate and severe clinical depression.

Reference

Website: http://www.travelactively.org.uk/pages/why-active-travel-evidence, accessed 26 October 2010

Health and air quality

There is robust scientific evidence indicating that exposure to air pollutants can affect human health in a variety of ways, ranging from subtle biochemical and physiological changes to severe illness and death. Studies reporting such effects have been carried out since early last century, when marked increases in mortality and morbidity followed short-term episodes of extremely high levels of air pollution (1–3). This and subsequent evidence resulted in the adoption of ambient air quality standards to safeguard the public from the most common and damaging pollutants, especially those derived from the combustion of fossil fuels.

The introduction of cleaner fuels, and the implementation of pollution control technologies that followed, successfully reduced levels of air pollution in several urban areas during the second half of the twentieth century.

Reference

Air Quality Guidelines: global update 2005, World Health Organisation (Europe).

Health and noise

Non-auditory effects include, most commonly, annoyance (if such an effect can truly be called a ‘health’ effect), sleep disturbance, interruption of speech and social interaction, disturbance of concentration (and hence of learning and long-term memory), and hormonal and cardiovascular effects, though it is not clear to what extent these effects are actually harmful.

Reference

Berglund, B., Lindvall, T. and Schwela, D. (1999) Community Noise, World Health Organisation (Europe).

Public transport overcrowding and stress levels

Failure to provide an efficient public transport system means that employers are faced with staff who are tired, stressed and uncomfortable on arrival at the workplace. Lateness at work, loss of productivity, sickness absence, missed and rescheduled meetings and lost business due to public transport overcrowding and delays all impose real and significant costs. The report from Oxford Economic Forecasting found that cost of public transport delays to the City of London "is conservatively estimated to be about £230 million a year". There is also concern that transport difficulties have an impact on the recruitment and retention of staff. Overcrowding on public transport reduces the attractiveness of the City as a place in which to make investments.

Reference

House of Commons Transport Committee: Over crowding on public transport. Seventh report, session 2002-3. TSO 2003

Access to cars and health

Housing tenure and car access have been shown to be associated with mortality and morbidity. It is often suggested that this is just because tenure and car ownership reflect income or psychological traits. However, it has been found that car access is still related to a range of health measures after controlling for income and self esteem.

Reference

Der, G., Ellaway, A., Ford, G., Hunt, K. and Macintyre, S. Do housing tenure and car access predict health because they are simply markers of income or self esteem? A Scottish study. Journal of Epidemiol Community Health, 1998; 52: 657-664

Extreme weather events and health

The discussion on health effects in different countries of the heat-wave and of the cold-waves occurred in 2003, as well as of the flooding in 2002, can be summarized as follows:

1) During the severe heat-wave that affected much of western Europe in summer 2003, women 75 years of age and older were at highest risk.

2) Winter mortality is still higher than summer mortality. While some of this wintertime excess relates to hypothermia, the greatest component is due to respiratory and cardiovascular diseases.

3)Flooding in 2002 caused serious re-organization of health care services and required advice on hygiene and immunization by health authorities.

A review of the health effects showed that fatalities are often caused by entrapment in vehicles and behaviours that clearly disregard dangers. Other health effects included gastrointestinal infections due to contamination of food and water, and psychological effects.

Reference

Extreme weather and climate events and public health responses, World Health Organisation, 2004.

Income levels / inequalities and psychological health

Income inequality affects health through perceptions of place in the social hierarchy based on relative position according to income. Such perceptions produce negative emotions such as shame and distrust that are translated “inside” the body into poorer health via psycho-neuro-endocrine mechanisms and stress induced behaviours such as smoking. Simultaneously, perceptions of relative position and the negative emotions they foster are translated “outside” the individual into antisocial behaviour, reduced civic participation, and less social capital and cohesion within the community.

Reference

Wilkinson RG. *Unhealthy societies: the afflictions of inequality*. London: Routledge, 1996, writing in House, J. S., Kaplan, G. A., Lynch, J. W. and Smith, G. D. *Income inequality and mortality: importance to health of individual income, psychosocial environment, or material conditions.* BMJ 29 April 2000, volume 320

Traffic calming and discomfort for drivers / passengers

The DfT’s traffic advisory leaflet 10/00 (December 2000) demonstrates that there is a directly proportional relationship between discomfort and vehicle speed over traffic calming obstacles.

Reference

Traffic Advisory Leaflet 10/00 Department of Transport. 2000

Appendix D: Strategic Environmental Assessment

Transport Plan: SEA Statement

Final SEA statement for the Transport Plan | **www.southwark.gov.uk**

Contents

1. Background

The Strategic Environmental Assessment (SEA) directive was approved by the European Parliament in 2001 and was incorporated into UK law on 20 July 2004 through The Environmental Assessment of Plans and Programmes Regulations (the SEA Regulations).

SEA is defined by the European Commission (EC) as: *'an important tool for integrating environmental considerations into the preparation and adoption of certain plans and programmes which are likely to have significant effects on the environment… because it ensures that such effects of implementing plans and programmes are taken into account during their preparation and before their adoption'.*

SEA is a process to ensure that significant environmental effects arising from plans and programmes are identified, assessed, mitigated, communicated and understood by decision makers, monitored and adequately consulted upon.

The SEA process found that no major adverse environmental affects will result from Southwark's Transport Plan and that many positive benefits will arise from the policies and programmes contained within the plan.

SEA Regulations 16.3c)(iii) and 16.4 require that a 'statement' be made available to accompany the plan, as soon as possible upon adoption of the Transport Plan. This statement must contain the following information:

- How environmental considerations have been integrated into the plan;
- How the environmental report has been taken into account;
- How consultation responses have been taken into account;
- Reasons for choosing the Transport Plan as adopted, in the light of other reasonable alternatives dealt with;
- Measures that are to be taken to monitor the significant environmental effects of the implementation of the Transport Plan.

The following table lists the documents produced to date and their purpose:

Table 1: Documents produced and their purpose

Document	Date produced	Purpose of document
SEA scoping report	June 2010	The scoping report identifies key issues to be covered in the Environmental Report and helps to direct focus of the SEA onto the main issues. The report also defines the study boundary and establishes the level of detail for the Environmental Report whilst outlining the approach of assessment for each issues identified. The scoping report lays out the main tasks for the remainder of the SEA. This information helps all parties to understand what remains to be done, and influences all parties' expectations of the SEA project.
Draft consultation Transport Plan	December 2010	The Transport Plan sets out how we will improve travel to, within and from the borough and contribute to the wider economic, social and environmental objectives of the council. It sets out our long term goals and transport objectives for the borough (up to 20 years), a three year programme of investment and the targets and outcomes to show how we are delivering the Transport Plan. Southwark's Transport Plan has been heavily influenced by the goals and challenges contained within the borough's Sustainable Community Strategy, the Mayor's Transport Strategy and the Sub Regional Transport Plans for central and south London. The Transport Plan was consulted on for 11 weeks from December 22 2010 until March 8 2011.
Environment Report	December 2010	The report is the main output of the SEA process. The report has two principle aims: To document and complete the SEA process; Illustrate compliance with the SEA regulation requirements. This document accompanied the Transport Plan document during the consultation period.

Final Transport Plan	July 2011	The borough's adopted Transport Plan will be a statutory document and take into consideration the comments received during consultation.
SEA statement	July 2011	The SEA statement acts as an important check on the Transport Plan and the SEA process. It helps to ensure that the environment has been considered at every stage, and that the information collated has influenced the final shape of the Transport Plan

All the documents were produced by the transport planning department and can be accessed on the council's website at: http://www.southwark.gov.uk/transportplan

2. The SEA process

2.1 Developing the SEA

In accordance with the EC directive the SEA has been developed in parallel with the Transport Plan. The SEA process can be broken down into five distinctive stages as detailed in the following table.

Table 2: SEA stages

	SEA stage	What does it involve?
Scoping report	Stage A	Set the context, establish the environmental baseline, identify problems and decide objectives
	Stage B	Decide the scope of the SEA, develop alternatives and consult with the environmental bodies
Environmental Report	Stage C	Assess the effects of the plan
	Stage D	Produce the Environmental Report
		Main consultation on the draft Transport Plan and the environmental report
		Produce statement to accompany final Transport Plan
	Stage E	Decide what needs to be monitored
		Monitor the significant effects of implementing the plan on the environment

The SEA was reported in two stages, a scoping report (consisting of stages A and B) that was consulted on in July 2010 and an Environmental Report (consisting of stages C, D and E) consulted on in December 2010 to March 2011 alongside the Transport Plan.

2.2 How the SEA helped to improve the Transport Plan

The following table provides a summary on of how the SEA process and the environmental report helped to improve the Transport Plan. Mitigation measures were identified if the Transport Plan was considered to have adverse environmental effects.

Table 3: How the SEA has helped improve the Transport Plan

SEA Issue	Summary of effect of Transport Plan on SEA topic area	The SEA helped to improve the Transport Plan by making the following changes:
Biodiversity, flora and fauna	Potential negative impacts on biodiversity where construction works and buildings of infrastructure are undertaken.	Greater consideration of environmental effects when reviewing individual schemes. In particular the Transport Plan policy to make our streets greener (4.4) states the benefits to biodiversity of well chosen trees planted as part of transport schemes.
Population and human health	Positive impacts of human health due to; • Improving safety on our roads • Promoting active travel • Improving public realm through a reduction in traffic volumes	Policy 4.5 has been inserted as a direct result of the SEA and states that "...interventions to manage travel demand, smooth traffic, improve safety (e.g. antisocial behaviour, graffiti/ vandalism), create better places and encourage more sustainable travel behaviour will contribute to improved air quality, reductions in CO_2 emissions". These all have benefits to the wider population in particular to human health.
Soil and water	Potential negative impacts on soil and water quality where construction works and buildings of infrastructure is undertaken.	Not explicitly covered in the Transport Plan but soil and erosion control measures to be incorporated into construction management plans.

SEA Issue	Summary of effect of Transport Plan on SEA topic area	The SEA helped to improve the Transport Plan by making the following changes:
Air quality	The Transport Plan and the Air Quality Strategy and Action Plan (AQSAP) share the common goal of reducing emissions from vehicular transport through a variety of measures, including promoting car clubs and walking and cycling, targeting idling engines, promoting driver education and green fleets.	As a general rule that if traffic volume increases, harmful emissions will also increase. On this basis, new traffic screenlines can be used as a proxy for changes in air quality in addition to air quality monitoring.
Climate change	The Transport Plan policies and plans will have a positive effect on greenhouse gas emissions and on climate change as a result of encouraging a modal shift towards sustainable means of transport, similar to that discussed above.	As above
Material assets	Potential negative impacts on materials where construction works and buildings of infrastructure are undertaken. The Transport Plan supports the sustainable use of resources, this is also a priority in the SCS.	The delivery plan within the Transport Plan gives support to the Mayor's Better Streets initiative and states that all schemes should be distinguished with high quality sustainable materials. This is also supported by the emerging streetscape design manual.
Cultural heritage	The Transport Plan proposes improvements to our town centres reducing congestion and promoting pedestrian priority which will have a positive impact by removing traffic blight. Reducing queues of traffic will also improve quality of life and enhance historic areas and buildings. However, new transport infrastructure can present a threat to the historic environment. New infrastructure can cause direct damage to archaeological sites, monuments and buildings.	Policy 4.5 has been inserted as a direct result of the SEA and states that "In order to remove potential conflict between townscape and the historic environment there is a need to ensure that our transport interventions make a positive contribution to the historic environment of Southwark. Interventions to manage travel demand, smooth traffic, improve safety (e.g. antisocial behaviour, graffiti/ vandalism), create better places and encourage

SEA Issue	Summary of effect of Transport Plan on SEA topic area	The SEA helped to improve the Transport Plan by making the following changes:
		more sustainable travel behaviour will contribute to improved air quality, reductions in CO_2 emissions". These will all help Southwark to protect and make the most of our historic and heritage assets.
Landscape	In general, the Transport Plan policies and plans will have a positive effect on the borough's landscapes as many of the programmes aim to enhance the townscape and built up areas, and thereby reducing traffic blight.	The new streetscape design manual includes the provision of high quality landscape design and detailing.
Noise	The most straightforward intervention to reduce harmful emissions from road traffic is for people to reduce private car use in favour of public transport, walking and cycling. Such a change will bring benefits from both air quality, climate change and noise perspectives. During construction work there may be increased noise levels, which will be significantly adverse for residents in the area. The effects of construction work on noise levels, will usually be short term in nature and will only be felt for the duration that the construction work is undertaken.	The Transport Plan contains a policy (8.4) which is to reduce the noise impacts of road traffic. Managing traffic flows on borough streets is likely to be the council's most significant contribution to noise reduction. The Transport Plan supports out of hours deliveries but only with appropriate routing and noise controls (e.g. noise dampeners). The noise impacts of all major transport projects will be assessed.

3. Consultation

3.1 Statutory consultation – Scoping Report

The SEA directive and regulations require authorities to consult with environmental authorities on the scoping report. The following statutory bodies were formally consulted on the scope of the SEA of the Transport Plan for Southwark in June 2010:

- Natural England
- The Environment Agency
- English Heritage

The following table summarises the main comments from these statutory bodies on the scoping report and indicates how these comments were addressed in the preparation of the Environmental Report:

Table 4: Comments from the statutory consultees on the scoping paper consultation in June 2010

Summary of comments	Action taken
Natural England	
Detailed comments were received as follows:	
General comment: would like to see stronger connections in relation to climate change and the natural environment. For example through flood storage, reducing rainwater runoff and ameliorating the urban heat island effect.	No further action: This may be difficult for us to quantify, other than the planting of street trees as part of transport schemes. We do practice Sustainable Urban Drainage (SUDS) and the SSDM proposes that we try to design grassed or planted areas (including around street trees) into footways wherever possible so that surface water can soak into these to mitigate flooding risks.
Monitoring: suggest we add to our SEA objectives and indicators and included: "Targets for securing at least no net significant adverse effect on the character or quality of protected landscapes and nature conservation sites". Recommend using data from Landscape character assessment and Countryside Quality	No further action: There is no evidence of any LCA's having been carried out previously in the borough – this seems to be more commonly carried out as part of the LTP process outside of London. Will monitor the no. of conservation areas -

Counts for landscape and townscape.	as already mentioned.
Would like links made between the SEA and the Habitats Regulations Assessment (HRA)	No further action: There is no requirement to carry out a HRA on the Transport Plan. Natural England refer to guidance by the DfT for LTPs but this is not relevant to London boroughs as advice is given by TfL on LIPs2.
Would like the SEA to show how well the Transport Plan will: - conserve and enhance landscape (and townscape) character and quality - conserve and enhance biodiversity and geo-diversity - conserve and enhance opportunities for sustainable public access to the natural environment - adopt a strategic approach to planning and provision of multi functional green infrastructure - Ensure the natural environment can adapt to and mitigate for the effects of climate change.	No further action: Planning and provision of multi functional green infrastructure is a land use planning function The council has an emerging Tree Management Strategy which sets out a vision until 2015, describes the current tree stock and how it is managed, identifies the organisations and individuals who have an interest in trees and specifies the actions which will be taken to realise the vision.
Specifically want a target on km of new access routes for walkers and cyclists to be created as a result of the Transport Plan	No further action: No new access routes planned as part of the Transport Plan although improvements will be made to existing walking and cycling links. The draft streetscape design manual (SSDM) proposes that cycle lanes would not be provided on existing 20mph streets and would be removed upon resurfacing from such streets where they already exist. Although short lengths of lane would continue to be provided if necessary at road closures (cycle gaps) and other

	features that provide permeability for cyclists through the street network.
Targets for increasing quality parks & accessible green spaces	No further action: Accessibility to parks and open spaces is discussed in the Transport Plan.
Targets for delivering health benefits through green exercise and active travel on the transport network.	No further action: We have the following SEA objective which covers this: "Improve physical fitness, by encouraging walking and cycling particularly for short journeys"
Targets indentifying the contribution the Transport Plan will make to national indicators (186, 188 and 197) and health indicators	No further action: The Transport Plan does include a target for the reduction of CO_2 emissions from road based transport as required by TfL. The SEA also contains an indicator for biodiversity to maintain the status quo of protected sites close to transport schemes. We have carried out a health impact assessment (HIA) of the Transport Plan.
Would like information on key environmental assets to be included where not already	Action: Include map on parks, open spaces and the greenways network.
Environment Agency	
No specific comments received - only a general guidance note relating to Local Transport Plans (LTPs)	No further action required
English Heritage	
Detailed comments were received as follows:	
Potential transport impacts on the historic environment should be judged using PPS5 (Planning for the historic environment 2010) along with the Government's Statement on the Historic Environment (2010)	No further action required

Want further information presented on the heritage assets within the borough.	Action: Include map of conservation areas and sites of archaeological importance as well as the Heritage at risk register.
Want the objective to "enhance the streetscape/ public realm" to have an additional indicator to monitor resident satisfaction with the quality of the public realm, including heritage assets and the wider historic environment.	Action: To investigate if this indicator can be monitored. Can have an indicator which draws on info from the NHT survey- satisfaction with condition of highway - but not possible to link this with the historic environment.
Consider that the cultural and heritage objective is too narrow and suggest that it is reworded to their specification. Also suggest additional indicators	No further action: An amendment has been made to the culture and heritage objective but this does not take the exact wording as suggested by English Heritage as this is too detailed for an objective within the Transport Plan.
Environment baseline - do not agree that the Transport Plan will have no significant impacts on cultural heritage and archaeology. Suggest we develop a baseline of designated and undesignated heritage assets (e.g. locally listed buildings)	Action: Consider revising initial statement about significance and developing baseline as suggested. The SSDM proposes that a standardised materials palette be used for all projects and that Heritage areas (designated conservation areas) will have higher visual quality/value elements, with a focus on sourcing those with a heritage character first and foremost. The strategic cultural area (key international commercial and cultural area along the Thames – designated in the LDF) will have the highest visual quality/ value and most sustainable elements used. The character may be modern or heritage based dependant upon the context. The SSDM also proposes that vivid

	coloured road surfaces no long be used as it is deemed to be visually intrusive. One of the proposed SSDM's strategic design aims is SDA14: Enhancing sense of place. This states that improvements should be configured so that buildings, landscapes and the social activities that take place in or around them appear as the most noticeable elements of the street – not traffic infrastructure, signs or road markings – and there is a clear unobstructed visual relationship between these areas and the carriageway.

3.2 Statutory and public consultation – Draft Transport Plan and Environmental Report

Table 5 below shows the responses received from the statutory consultees in response to the consultation on the Environmental Report and that of the Transport Plan. The Environmental Report was included as an appendix of the draft Transport Plan as well as being sent separately to each of the statutory consultees. The public consultation period ran from December 22 2010 to March 8 2011. The consultation results were used to amend both documents.

Alongside consultation with the local community the council also sought input from the following bodies:

- Transport for London
- Neighbouring local authorities
- Highways Agency
- Environmental consultees (as in table 5)
- British Waterways
- Met Police
- Fire and emergency planning
- GLA
- London Ambulance Service

- London Travelwatch
- Network Rail

The environmental consultees were the only bodies to comment on the SEA and their comments are outlined below together with how we have incorporated these into the Transport Plan.

Table 5: Responses received from Statutory consultees to the Environmental Report, March 2011.

Summary of comments	Action taken
Natural England	
Detailed comments were received as follows:	Green = no action taken or required, Blue = action taken
Overall the Environment Report covers the areas and issues that Natural England would wish to see considered in such a document, and the proposed Strategic Environmental Assessment objectives as listed in Table 4 can be broadly supported.	Positive comment noted.
There is reference to enhancing the streetscape under these objectives which is to be encouraged, and the council should consider, where appropriate, the potential for green infrastructure improvements of the streetscape, not just street trees.	Comment noted. The Transport Plan does now refer to “street trees and landscaping” , “trees and vegetation” in order to mitigate climate change, improve local amenity and can mask traffic noise. (Transport Plan objective 4)
Environment Agency	
No capacity to comment in detail on our Transport Plan	
English Heritage	
Detailed comments were received as follows:	
Para 3.2 Transport Plan objectives We would advise that an objective should included that seeks to ensure the Transport Plan enhances the quality of life for all, principally enhancing the built and natural environment through transport provision and management. This additional objective would reflect the Mayor’s Transport Strategy goals and outputs (para 4.3). In order to ensure the historic environment is sufficiently conserved an enhanced when implementing the Transport Plan we would strongly advise that the above suggested	Additional objective in the Transport Plan considered but rejected. However objective 4 has now been amended and has a separate policy (4.5 Enhance quality of life through the built and natural environment) to address this issue.

objective is included.	
Table 4: Proposed SEA objectives and indicators We would advise that the SEA objective for culture and heritage should also make reference to the setting of heritage assets, whilst the indicator should include the number and condition of heritage assets identified on the Heritage at Risk register.	Amended and contained within Environment Report.
Table 5: SEA objectives mapped against Transport Objectives. As already advised the inclusion of an additional transport objective that referred to the enhancement of the built and natural environment would ensure the Cultural and Heritage SEA objective is more successfully addressed. At present the transport objective of improved health and well being is too broad and ill conceived in addressing the need to ensure transport interventions make a positive contribution to the historic environment of Southwark.	As above
6.3 The environmental baseline - Cultural heritage and archaeology Welcome in general the level of detail provided on the environmental baseline. However all this evidence is lost when considering the lack of a clear transport objective that can help conserve and enhance the heritage baseline. This should be addressed.	Positive comment noted, plus as above

9. Assessment of significant environmental effects None of the points raised have sought to consider the impact of the measures upon the historic environment. For example under the heading of improving the health and wellbeing of all, the measures identified of encouraging walking and cycling facilities and improving the public realm have not considered their potential impact upon the historic environment. This suggests that the Transport Plan has not been fully tested against the SEA objective of Culture and Heritage, which is a concern.	Change made to Transport Plan objective 4
What are we trying to achieve and Section 4: Our Strategy for Southwark As already identified in our comments on the SEA, the Transport Plan lacks an explicit commitment to ensuring transport provision and management enhances the quality of the built and natural environment, including the historical environment. This significant omission undermines the potential of the Transport Plan to have a positive impact upon the quality of Southwark's environment by ensuring transport interventions are of high quality design and contextually appropriate. At present the transport objectives do not sufficiently reflect clearly the advice set out in the Mayor's Transport Strategy, and its emphasis upon improving London's environment through the principles of 'Better Streets' (para 4.3 and 5.18). Principally, its emphasis upon reflecting the local character and the historic environment when developing and implementing changes to transport provision and management. The approach set out is also contrary to the Mayor's emerging Replacement London Plan and national guidance such as PPS5.	Change made to Transport Plan objective 4

Objective 4: Improve the health and wellbeing of all by making the borough a better place. We would strongly advise that a Strategic Policy should be added that addresses the commitment of Transport Plan to ensure transport proposals improve the layout and design of streets and wider townscape, are of high quality design and contextually sensitive, and conserve and enhance the built and historic environment. At present none of the Strategic Policies appear to address this important issue, which is a significant failing. This is a particular concern when considering the details of the Mayor's commitment to developments having regard to local character, deliver better quality design, conserve and enhance the historic environment, and improved public realm (as set out in the emerging Replacement London Plan and Mayor's Transport Strategy). In addition this lack of commitment does not reflect national planning guidance such as PPS5.	The Transport Plan makes reference to the SSDM which should include details to address these issues. We have also added the following policies in the Transport Plan: 4.2 Create places that people can enjoy, 4.3 Help communities shape their streets.
The SEA and draft Transport Plan lacks sufficient reference to the conservation and enhancement of the historic environment in line with national planning guidance such as PPS5 and the Mayors Transport Plan.	Change to objective 4 in the Transport Plan to reflect this

4. Alternative Options

4.1 Alternative strategies

The SEA directive requires that *reasonable alternatives, taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.* The borough has prepared Transport Plan objectives, which consider the MTS, the sub regional plans and council policy including the sustainable community strategy.

It is normal practice when developing a plan to propose alternative ways of fulfilling its objectives. However, as the Transport Plan is an implementation plan of the Mayor's Transport Strategy we must respond to the key priorities and policies set out by the Mayor. This provides limited flexibility to develop strategic alternative proposals for the Transport Plan. The key measures contained within the Transport Plan for each Transport Plan objective have been assessed against each environment topic area and where possible alternatives to these measures have been discussed.

Although the Transport Plan will have a positive effect on the environment overall, it is thought that some schemes could have negative effects particularly during physical works. Measures anticipated to prevent, reduce or offset any significant adverse effects should be provided on a scheme by scheme basis with larger projects requiring an Environmental Impact Assessment.

Alternative strategies were initially developed for all of the Transport Plan objectives, shown in the following table 6. This table originally appeared in the Environmental Report but has since been revised to take into account the merging of objectives eight and nine in the Transport Plan, as well as revised measures within the plan. When determining these alternatives the following issues were considered, that the alternative strategies would:

- Alleviate the problems in the plan area;
- Meet the objective;
- Highlight links to strategic goals.

Each of the proposed measures and alternatives for achieving the Transport Plan objectives has been assessed for their effect on each environmental topic area. This has been split into positive and negative, long and short term. Short term is defined as the life of the Transport Plan delivery plan – until 2014, and long term is defined as being until 2030, the duration of the Mayor's Transport Strategy

Table 6: Proposed measures and alternative measures to meet the Transport Plan objectives

+ positive short term impact - negative short term impact

++ positive long term impact - - negative long term impact

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
Do nothing	Ongoing parking management	-	-		-	-	-	-	-
	Minimal traffic programme	-	-		-	-	-	-	-
	Basic highway and bridge maintenance	-	-		-	-	-	-	-
I. Manage demand for travel and increase sustainable transport capacity									
	Support low car and car free developments	++	++	++	++	++	++	++	++
Measures proposed as part of Transport Plan	Install additional on street car club bays	++	++	++	++	++			++
	Install additional cycle parking in areas of high demand	++	++		++	++			++
	Lobby TfL for cycle hire extension to zone 2	++	++		++	++	++		++
	Install Legible London at key destinations	++	++		++	++	++	++	++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Lobby TfL for pedestrian capacity improvements in the areas around London Bridge and Borough High Street	++	++		++	++	++	++	++
Alternatives considered to meet objective	Significantly higher parking charges	+	-	+	+	+			+
	Road user charging	+	- / +	+	+	+		+	+
2. Encourage sustainable travel choices									
Measures proposed as part of Transport Plan	Work with staff, students, parents and guardians to promote and implement school travel plans	++	++		++	++			
	Work with businesses and travel plan groups to expand the number with active travel plans	++	++		++	++			
	Ensuring people have the skills to travel sustainably through practical training such as cyclist, pedestrian and independent travel training	++	++		++	++		++	++
	Produce a calendar of travel awareness events		++		++	++			++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Lobby TfL for cycle hire extension to zone 2	++	++		++	++	++		++
	Continue to work with the Mayor and TfL to deliver the cycle superhighways and to provide complementary measures	+	+		+	+	+	+	+
Alternatives considered	Further incentives (e.g. financial) for those who travel sustainably	+	+	+	+	+			
	Personalised travel planning		++		++	++			
3. Ensure the transport system helps people to achieve their economic and social potential									
Measures proposed as part of Transport Plan	Work with job centres and other agencies to provide information to job seekers on sustainable travel options		++		++	++			++
	Lobby transport operators for improved transport services and connections		++		++	++		++	++
	Improvements to Camberwell town centre	+	-++		-++	-++		-++	-++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Continue to work with TfL and transport operators to feedback customer service related comments		++		++	++			
	Seek to identify schemes to improve access to and within town centres		++		++	++	++	-++	-++
Alternatives considered	Run free shuttle buses from housing estates to main employment centres		++	--	--	--			
	Further incentives (e.g. financial) for those who travel sustainably	+	+	+	+	+			
4. Improve the health and wellbeing of all by making the borough a better place									
Measures proposed as part of Transport Plan	Install street trees by the 'right tree, right place' method	++	++	++	++	++	++	++	++
	Promote led walks and rides in the borough	++	++		++	++			++
	Work with health practitioners to encourage walking and cycling for their patients	++	++		++	++			++
	Engage with local people to develop 'community streets'		-++				++	-++	-++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Greening the streets	++	++	++	++	++	++	++	++
	Promoting walking routes in Southwark	++	++	++	++	++			
	Develop green links to promote walking and cycling in local areas	++	++	++	++	++			++
	Test any shared surface proposals with users representing a full range of mobility needs		++		++	++	-++	++	++
Alternatives considered	Noise barriers	--	++				--	--	--
5. Ensure the transport network is safe and secure for all and improve perceptions of safety									
	Produce a calendar of road safety events		++		++	++			++
Measures proposed as part of Transport Plan	Promote safety to commuter cyclists		++		++	++			
	Support the police to enforce speeding traffic		++		++	++			++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Ensuring people have the skills to travel sustainably through practical training such as cyclist, pedestrian and independent travel training	++	++		++	++		++	++
	Deliver a coordinated package of measures to help educate and inform the public of road safety issues		++				++	++	++
	Work with TfL to reduce collisions on the TLRN		++				++		
	Implement 20mph borough	++	++		++	++		++	++
Alternatives considered	Segregation of road users e.g. using pedestrian barriers		-+				-	-	-
	Off road cycle paths	--	++		++	++	-		
	Increased levels of policing and enforcement		-+		++	++			++
6. Improve travel opportunities and maximise independence for all									
Measures proposed as part of Transport Plan	Provide safe informal crossing points with dropped kerbs		++		++	++			++

Deleted: ++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Provide a rapid response to repair or safeguard damaged pavements		++				++	++	++
	De clutter our streets	++	++				++	++	++
	Improve our bus stops to make them fully accessible		++		++	++	++		
	Co-ordinate improvements on streets around stations undergoing accessibility improvements		+				+	+	+
	Ensuring people have the skills to travel sustainably through practical training such as cyclist, pedestrian and independent travel training	++	++		++	++		++	++
	Install home (origin) and destination disabled parking bays in key destinations	+	+		+	+	+		
	Support the door to door transport services for those people who are unable to use mainstream public transport		++						

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
Alternatives considered	Provide private transport		++		--	--			
	Personalised travel planning		++		++	++			
7. Ensure that the quality, efficiency and reliability of the highway network is maintained									
Measures proposed as part of Transport Plan	Maintenance of roads and streets in accordance with Highway Asset Management Plan		++		++	++	++		++
	Deliver any changes to the highway network in accordance with the road user hierarchy		++		++	++	++		++
	Manage our road network and work with TfL to help smooth traffic		++		++		++		++
Alternatives considered	Restrict access to the network for maintenance and construction works	--	++	--	--	--			
	Restrict access (by road or time) to reduce local congestion.	+	--		+	+			

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
8. Reduce the impact of transport on the environment									
Measures proposed as part of Transport Plan	Assess CO_2, air quality and noise impacts of all major transport projects		++	++	++	++		++	++
	Implement variable resident's parking tariffs based on CO_2 emissions		++		++	++			
	Lead by example by following best practice for the council's vehicle fleet		++		++	++			
	Promote best practice in quiet delivery technology and techniques	+	+		+	+			
	Implement on-street charging points for electric vehicles on a trial basis	++	++		+	+			
	Support increased penalty charges for engine idling offences	++	-/++		++	++			
	Promote fuel efficient driving styles		++		++	++			

Deleted: ++

Deleted: ++

Transport Plan objective	Possible pool of measures for achieving Transport Plan objectives / MTS priorities	SEA considerations							
		Biodiversity, flora & fauna	Population	Soil & water	Air	Climate	Material assets	Culture & heritage	Landscape & townscape
	Install street trees by the ‘right tree, right place’ method	++	++	++	++	++	++	++	++
	Pilot scheme to identify and implement air quality improvements close to schools in conjunction with air quality improvement plan		+		+	+			
Alternatives considered	Investigate implementation of road user charging	+	- / +	+	+	+		+	+

4.2 Consideration of alternatives

The following information details the alternatives considered for each transport objective and the rationale for not choosing them.

Manage demand for travel and increase sustainable transport capacity

By managing the demand for travel we will relieve pressure on the public transport system as well as the road network. Whilst we are not directly responsible for some areas of sustainable travel (such as bus and rail) we will work hard to campaign and lobby for increases in capacity on those as well as increasing the transport capacity for walking and cycling. We will also continue to work towards enabling car clubs in the borough.

Two alternatives were considered, introducing significantly higher parking charges and investigating the implementation of road user charging. Both of these options would have differential financial impacts across the borough and may adversely impact on those with limited ability to change mode of travel. In addition, the introduction of road user charging would require regional support, which is currently not evident. Therefore neither of these options are currently supported.

Encourage sustainable travel choices

Southwark is committed to encouraging people to use more sustainable and active modes, i.e. walking, cycling and public transport.

Our transport improvement programme will make sustainable travel choices easier to make by creating the conditions in which more people will feel attracted to walking, cycling and public transport. This will be achieved through school travel plans, workplace travel plans, ensuring people have the skills to travel sustainably, and support for Cycle Superhighways and the Cycle Hire scheme.

The alternatives are not supported as they are not financially viable.

Ensure the transport system helps people to achieve their economic and social potential

The council aims to increase the number of people who both live and work in the borough. Achievement of this will mean that these people are not travelling great distances to work and they will have greater sustainable travel options such as walking and cycling.

The alternative here is not supported for financial and practical reasons.

Improve the health and wellbeing of all by making the borough a better place

Encouraging more cycling and walking is a key priority for Southwark and will also help us to achieve a number of our other Transport Plan objectives. This objective will be achieved by continuing work with the community and in particular young people, helping to improve health and physical activity in the borough. We recognise that our roads are public spaces shared by all those who use them (residents,

workers, shoppers etc.), and have a key role to play in delivering our transport objectives and so we will improve our public realm.

The alternative suggested of introducing noise barriers is not supported for the many disbenefits it would bring such as aesthetic impacts on the townscape, social segregation as well as increased maintenance and installation costs.

Ensure the transport network is safe and secure for all and improve perceptions of safety

Improving the safety of roads within Southwark is a key priority area and the proposed method is through speed reduction and improved infrastructure, such as pedestrian crossings. Proposed methods include road safety campaigns, designing out crime when undertaking local improvements, continuing to support community wardens, making 20mph the default speed limit in the borough and safety audits.

Alternatives to these measures include the increased segregation of road users, which is not currently considered to be suitable and could conflict with the findings of our Equality Analysis which advocates increased social inclusion for all. Other alternatives include increased levels of policing and enforcement which is considered to be uneconomical.

Improve travel opportunities and maximise independence for all

Pavements, parks and other public places often have obstacles and hazards which make life difficult for everyone but particularly those with impaired mobility. Transport services will need to continue to improve to meet the needs of people such as wheelchair users. Some things just need minor adjustment like installing dropped kerbs or correct tactile paving. Other improvements need major investment which needs to be planned over the long term, such as making stations and their surroundings fully accessible.

The alternative here is not supported for financial and practical reasons.

Ensure that the quality, efficiency and reliability of the highway network is maintained

Southwark currently seeks to work towards reducing and controlling congestion through traffic management, and encouraging a modal shift towards forms of transport other than the car.

General restrictions to the network by route or timing or for works were also considered. However these were not supported as they would restrict journey choice and disadvantage those not undertaking the primary route.

Reduce the impact of transport on the environment

Air pollution is one of the most pressing environmental concerns for people living in London. Emissions from road transport are the primary source of both NO_2 and PM_{10} in Southwark and London as a whole. Encouraging sustainable travel choices will help to increase air quality as modal shift away from the car occurs in the borough.

Southwark is committed to reducing its climate change impact, particularly through transport. Our Transport Plan target for CO_2 reduction from road based transport has been set so that it is consistent with the Mayor's 2025 CO_2 reduction target. Southwark's Transport Plan delivery actions focus on:

- Southwark staff travel plan
- Electric vehicle charging points pilot
- Planting street trees according to the 'right tree, right place' method.
- Parking provision: As part of the parking contract renewal we will seek to implement emission based parking permit charges

The borough currently has no alternative schemes proposed, however adopted policies are not anticipated to have a significant environmental impact.

The borough considered investigating the implementation of road user charging. This alternative was also considered for Transport Plan objective one. It was found that this option would have differential financial impacts across the borough and may adversely impact on those with limited ability to choice to travel or change mode of travel. In addition, the introduction of road user charging would require regional support, which is currently not evident. Therefore neither of these options are currently supported.

4.3 Incorporation of mitigation recommendations

Some short term adverse effects were identified in the assessment of the Transport Plan which generally related to the construction phase of transport works. Therefore for mitigation purposes it is recommended that works are completed with good practice on site to reduce any adverse effects.

5. Monitoring requirements

5.1 Monitoring

The SEA requires the borough to monitor the significant environmental effects of the implementation of plans and programmes in order to identify at an early stage unforeseen adverse effects, and be able to take appropriate remedial action.

Monitoring requirements were discussed in the Environmental Report and this is repeated with minor amendments here. We have identified a number of targets to monitor our performance and ensure delivery of outcomes of the Transport Plan. These targets are both ambitious and realistic given anticipated funding levels.

Table 7: Performance monitoring of the Transport Plan

Target/ Indicator	Baseline	Transport Plan objectives	Monitored
Excess wait times for high frequency bus services from 1.2 minutes to 1.0 minute in 2013/14	2009/10	1, 2, 3, 7	Reported to TfL
Maintain the proportion of principal road length in poor condition at 11.1% by 2013/14	2009/10	7	Reported to TfL
Reduce CO_2 emissions from road based transport from 227kt CO_2 in 2008 to 190kt CO_2 in 2013	2008	8	Reported to TfL
Reduce traffic levels in Southwark by 3% by 2013	2010	1, 8	Locally reported
Increase the walking mode share in Southwark to a third (33%) by 2013	2006/2008 three year average	1, 2, 4,6	Reported to TfL
Increase the proportion of those cycling in Southwark from 3% to 4% by 2013/14	2007/09 three year average	1, 2, 4	Reported to TfL
Reduce the number of all total casualties by 33% by 2020	2004/2008 three year average	5	Reported to TfL
Reduce the number of killed and seriously injured by 33% to 2020	2004/2008 three year average	5	Locally reported

Reduce the total number of slight casualties by 33% by 2020	2004/2008 three year average	5	Locally reported
Reduce all cyclist casualties by 44% by 2020 based on a 2004/08 baseline	2004/2008 three year average	5	Locally reported

The draft AQSAP states that “Southwark will commence the operation of two automatic monitoring stations at the Elephant and Castle and Old Kent Road and a diffusion tube survey to provide a more comprehensive survey of air quality in the borough” (AQSAP measure 19).

In addition to this Southwark’s web pages on air quality contain information on the sources of air pollution and some of the health effects. This information will be reviewed and additional information provided on AirTEXT; construction emissions and monitoring data from the new air monitoring locations.

To support the information collected and reported as part of the target monitoring, the council also collects the following information to track performance.

Table 8: Annual information collated

Transport Plan outcomes	School hands up surveys (mode of travel to school)
	Annual school census data
	School travel plan progress reports
	% development that has been built complying with car parking standards
	% development that has been built complying with bicycle parking standards
	Amount of approved development in controlled parking zones restricted from having on street parking permits
	Amount of approved development subject to a travel plan
	Funding gained from planning (S106) agreements for transport
	Travel plan monitoring
	Bus and tube patronage data
	Ofsted reports and school self evaluations

In addition to the monitoring for our Transport Plan targets and the information to be collated above we will also be collecting data for TfL through their output reporting sheet shown below.

Table 9: Output reporting sheet, information required annually by TfL

Description	Unit of data	Number
Cycling		
Cycle parking facilities	Number of on street spaces	
	Number of off street spaces	
Cycle training	Number of adults	
	Number of children	
Walking		
Protected crossing facilities (e.g. refuges, zebra crossings, pelican crossings etc)	Number	
Guardrail removal	Metres	
Road safety and personal security		
Education and training interventions (e.g. theatre in education or pedestrian training)	Number	
20 mph zones / limits	Number	
Buses		
Bus lanes	Kilometres	
Accessible bus stops	Number	
Smarter travel		
Development of workplace travel plans and review of existing plans	Number of workplaces	
Annual monitoring of school travel plans	Number of schools	
Walking promotions (e.g. Number of schools participating in 'Walk on Wednesdays'	Number of schools	
	Number of workplaces	
	Number of events	

Cycling promotions (e.g. Number of events during Bike Week)	Number of schools	
	Number of workplaces	
	Number of events	
Smarter driving (i.e. Eco-driving), greener vehicles, liftshare and car club promotions	Number of events	
Public transport promotions (e.g. Freedom Pass promotions)	Number of events	
Environment		
Electric vehicle charging points	Number on street	
	Number off street	
	Number of workplace	
Car club bays implemented or secured by the borough	Number on street	
	Number off street	
Street trees	Number of new trees planted	
	Number of replacement trees planted	
	Number felled for natural / safety reasons	
	Number felled for other reasons	
Local area accessibility		
Shopmobility or scootability	Number of schemes implemented	
Controlled parking and freight		
New zones implemented	Number	
Waiting and loading reviews	Number	
Cleaner local authority fleets		
European emission standard of fleet for heavy duty diesel-engine vehicles (all vehicles with a gross vehicle weight of	Number of Euro II vehicles	
	Number of Euro III vehicles	

8,800kg or over, including lorries and buses)	Number of Euro IV vehicles	
	Number of Euro V vehicles	
Electric vehicles in fleet	Number fully electric	
	Number hybrid electric	

Appendix E: Locally specific targets for indicators reported to Transport for London

Core indicator	Definition	Year type	Units	Base year	Base year value	Target year	Target year value	Trajectory data				Data source
Mode share of residents	% of trips by walking	Calendar	%	2006/7-2008/9	31.5	2013	33	**2010**	**2011**	**2012**	**2013**	LTDS
								32.1	32.4	32.7	33	
Mode share of residents	% of trips by cycling / no of trips	Calendar	%	2006/7-2008/9	2.9	2013	4	**2010**	**2011**	**2012**	**2013**	Specify LTDS or borough's own screenline counts
								3.3	3.6	3.8	4	
Bus service reliability	Excess wait time in mins	Calendar	Mins	2009/10	1.2	2013	1	**2010**	**2011**	**2012**	**2013**	iBus
								1.2	1.1	1.1	1	
Asset condition - principal roads	% length in need of repair	Calendar	%	2009/10	1.1	2013	1.1	**2010**	**2011**	**2012**	**2013**	Detailed Visual Inspection (DVI) data supplied for each borough to TfL by LB Hammersmith and Fulham
								1.1	1.1	1.1	1.1	
Road traffic casualties	Total number of people killed or seriously injured	Calendar	No.	2004-2008	140	2018-2020	93	**2009/11**	**2010/12**	**2011/13**	**2012/14**	Research, Data and Analysis Transport for London
								128	124	121	117	
Road traffic casualties	Total casualties	Calendar	No.	2004-2008	1,170	2018-2020	780	**2009/11**	**2010/12**	**2011/13**	**2012/14**	Research, Data and Analysis Transport for London
								1,072	1,040	1,008	975	

CO_2 emissions	CO_2 emissions	Calendar	Tonnes /year	2008	227	2013	190.09	**2010**	**2011**	**2012**	**2013**	GLA's London Energy and Greenhouse Gas Emissions Inventory (LEGGI)
								211.45	204.07	196.96	190.09	