A TRANSPORT PLAN FOR HAMMERSMITH & FULHAM

THE SECOND LOCAL IMPLEMENTATION PLAN (LIP2) 2011 - 2031

get h&f moving

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GLOSSARY

LIP2	Second Local Implementation Plan
MTS2	Mayors Second Transport Strategy
TLRN	Transport for London Road Network
SRTS	Sub-Regional Transport Strategy
LDF	Local Development Framework
TFL	Transport for London
HAFAD	Hammersmith & Fulham Action on Disability
SWELTRAC	South & West London Transport Conference
EIA	Equality Impact Assessment
SEA	Strategic Environmental Assessment
IMD2007	Index Multiple Deprivation 2007
PTAL	Public Transport Accessibility Level
SRN	Strategic Road Network
ODA	Olympic Delivery Authority
TDM	Travel Demand Management
GLA	Greater London Authority
NMD	Network Management Duty
LOPS	London Permit Scheme
CPZ	Controlled Parking Zone
FORS	Freight Recognition Operators System
LEZ	Low Emission Zone
ORN	Olympic Route Network
BSI	British Standards Institute
QMS	Quality Management System
LAA	Local Area Agreement
EWT	Excess Waiting Time
KSI	Killed and Seriously Injured
WEZ	Western Extension Zone
POI	Programme of Investment

EXECUTIVE SUMMARY

Foreword

We aim to be a borough of opportunity, and to do this we need to get Hammersmith & Fulham moving. We have comprehensive bus and tube networks and as a small and compact borough, we have high levels of walking and cycling. We have secured major improvements to public transport in recent years, including a new Underground station at Wood Lane and three new Overground stations at West Brompton, Shepherds Bush and Imperial Wharf. But our roads are the most congested in London, and we need to improve the efficiency of our road network, particularly our limited number of north-south roads. Projects such as our scheme to improve the junction of Fulham Palace Road and Hammersmith Broadway are vital to meet the needs both of existing residents and businesses, and of the additional people and jobs coming into the borough as a result of our regeneration plans.

We'll also need further improvements to public transport, walking, cycling and the public realm. This transport plan shows how, with our partners the Mayor of London, transport operators, neighbouring councils and our businesses and residents, we aim to achieve our transport objectives, whch are to:

- Serve the five major regeneration areas in the borough - White City, North Fulham area, South Fulham Riverside, Hammersmith Town Centre and Old Oak Common
- Improve the efficiency of our road network
- Improve the quality of our streets
- Improve air quality in the borough
- Make it easier for everyone to gain access to transport opportunities
- Support residents and businesses by controlling parking spaces fairly
- Reduce the number of people injured and killed on our streets

The following chapters detail the measures or 'interventions' we intend to make to meet these objectives. In this time of unprecedented austerity, it is more important than ever that we get maximum value for our transport investment to help us secure economic recovery and regeneration, make the borough cleaner and greener, and make H&F a borough of opportunity - in short, to get Hammersmith & Fulham moving.

Councillor Nicholas Botterill

Deputy Leader of the council and cabinet member for environment

1. INTRODUCTION

1.1 Background

This transport plan for Hammersmith & Fulham is the second Local Implementation Plan (LIP2), a statutory document. This has been 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.

The first Hammersmith & Fulham LIP covered the period 2005/6 to 2010/11. Our LIP2 covers the same period as the second Mayor's Transport Strategy (MTS2) - up to 2031- and includes delivery proposals for the period 2011/12 to 2013/14. It responds to MTS2, the emerging sub-regional transport plans (SRTS), Hammersmith & Fulham's emerging Local Development Plan (LDF), Hammersmith & Fulham Community Strategy and other relevant policies. It sets out the council's long term goals and transport objectives for Hammersmith & Fulham up to 2031, a three year programme of investment for 2011-14, and the targets and outcomes we are seeking to achieve.

The LIP2 identifies how we will work towards achieving the revised MTS2 goals of:

- **Supporting economic development and population growth**
- **Enhancing the quality of life for all Londoners**
- **Improving the safety and security of all Londoners**
- **Improving transport opportunities for all Londoners**
- **Reducing transport's contribution to climate change and improving its resilience**
- **Support delivery of the London 2012 Olympic and Paralympic Games and its legacy.**

The LIP2 is also a vital tool which will enable us to strengthen our role in shaping the identity of the borough and meeting community priorities.

1.2 How the LIP2 has been developed

The second H&F LIP has been developed in accordance with Transport for London's (TfL) guidance on developing the second local implementation plans, May 2010

- **Governance arrangements**

The LIP2 has been developed by a multi-disciplinary team in the highways and engineering and planning divisions of the council's environment department, with

regular liaison with the deputy leader of the council and cabinet member for environment.

- **Consultation**

In developing the second LIP a multi-stage consultation strategy was agreed exceeding the requirements for consultation as part of the LIP2 guidance. The consultation strategy is detailed in Appendix 2- our statement of community engagement, at page 80.

To summarise, the first stage of the consultation informed the statutory consultees and known organisations interested in transport about the strategy of how we intended to produce the LIP. The second stage saw the publication of our seven borough transport objectives and invitations for all stakeholders to comment on how best they thought we could deliver them. The third stage consists of this consultation draft LIP2 being submitted to TfL and its full publication on the council's website.

The following key stakeholders have been consulted on the plan at various stages in its development:

- Transport for London (TfL)
- Hafad (Hammersmith & Fulham Action on Disability) and Hammersmith & Fulham Disability Forum
- The town centre management for Hammersmith, Shepherd's Bush and Fulham.
- The council's Environment and Residents Services Select Committee
- Neighbouring boroughs (the London Boroughs of Brent, Ealing, Hounslow, Richmond-upon-Thames, Wandsworth and the Royal Borough of Kensington and Chelsea).
- The sub-regional partnerships to which we belong – Westrans and South & West London Transport Conference (SWELTRAC)
- The Metropolitan Police.

We have paid particular attention to the Hammersmith & Fulham Community Strategy (2007-14) as well as the council's Unitary Development Plan and the emerging Local Development Framework.

The results of the consultation are reported at relevant points within the plan and in full in the statement of community engagement (see Appendix 2).

- **Equality Impact Assessment (EIA)**

In preparing our delivery plan (Chapter 3) an Equality Impact Assessment has been undertaken to ensure that the proposals presented do not discriminate against any groups and that equality is promoted wherever possible. We have a duty to carry out an equality impact assessment of our LIP2 under race, disability and gender legislation. This is attached as Appendix 1.

- **Strategic Environmental Assessment (SEA)**

A Strategic Environmental Assessment has been prepared in parallel with the LIP and is included as Appendix 3. As per the European Directive, the draft scoping report was consulted on for five weeks from 17 September 2010 to 15 October 2010. Letters were sent to the six statutory consultees (as listed below) and the draft scoping report was published on our web site.

1. English Heritage
2. Environment Agency
3. Groundwork London
4. Natural England
5. Friends of the Earth
6. London Wildlife Trust

The council received one response to this consultation from Natural England. Those comments, and the council's response to Natural England, can be found in the final environmental report in Appendix 3.

1.3 Structure of the H&F LIP2

The rest of the document is structured as follows:

- Chapter 2 sets out the local transport context of the borough, the problems, challenges and opportunities facing us and our Borough Transport Objectives

- Chapter 3 presents a costed and funded Delivery Plan, covering the period 2011 - 2014

- Chapter 4 sets out our Performance Monitoring Plan, identifying the targets and indicators which will be used to monitor progress against our objectives.

2. BOROUGH TRANSPORT OBJECTIVES

2.1 Introduction

This chapter sets out Hammersmith & Fulham's Borough Transport Objectives for the period 2011 - 2014 and beyond, reflecting the timeframe of the revised MTS. The structure is as follows:

- Sections 2.2 and 2.5 describe the **local context** firstly providing an overview of the borough characteristics and its transport geography, and then summarising the London-wide, sub-regional and local policy influences which have informed the preparation of this LIP.

- Section 2.6 sets out Hammersmith & Fulham's **problems, challenges and opportunities** in the context of the Mayor's transport goals and challenges for London, and looks at the main issues which need to be addressed within the borough in order to deliver the revised MTS goals.

- Finally section 2.7 sets out our **Borough Transport Objectives** for this LIP, which have been created by the issues identified in Sections 2.2 to 2.6.

2.2 About Hammersmith & Fulham

The borough of Hammersmith & Fulham is situated on the western edge of inner London in a strategic location on the transport routes between central London and Heathrow airport. The orientation of the borough is north to south, with most major transport links, both road and rail, carrying through-traffic from east to west across the borough. Some of the busiest road junctions in London are located in the borough at Hammersmith Broadway, Shepherds Bush Green and Savoy Circus and the borough suffers disproportionately from the effects of through-traffic. North-south transport links in the borough are not as good as east-west links.

The borough's population is increasing. It has grown from 169,300 in 2004 to 172,500 in mid 2007 and is expected to grow by approximately 12% between 2006 and 2026. The population of the borough is relatively young and ethnically diverse. It is also a highly mobile population with about half of all households having moved into the borough in the last five years.

Nearly half of the population (45%) is between 19 and 40 years old. The borough has the second highest proportion (54.7%) of single adults in England and Wales. Four in ten (40.3%) households consist of one person. (Source 2001 census)

Hammersmith & Fulham is an area of contrasts: of wealth and poverty; attractive environments, many of which are protected by conservation designations, and other areas that need to be regenerated and improved. The borough has some of the highest house prices in London but is ranked as the 38th most deprived local authority in the country (IMD2007). There are significant pockets of deprivation largely concentrated on the larger housing estates, such as in the White City area.

The borough has at least four distinct areas – Fulham, Hammersmith, Shepherds Bush and the area to the north of Wormwood Scrubs (the College Park/Hythe Road area). The borough also benefits from having almost five miles (seven kilometres) of frontage along the River Thames.

Our economy is part of the wider London and west London economic area. The borough occupies a favourable location in west London and is attractive to a variety of businesses. It has enjoyed significant growth in employment and economic activity over the last three decades, with the central Hammersmith area becoming an important sub-regional location for offices. In 2006, 115,000 people worked in the borough compared with 111,500 in 2004 (Annual Business Inquiry). Just over a quarter of people working in the borough also lives in the borough. The largest employer in the borough is the BBC, based in Wood Lane, which has expanded its complex there in recent years and has approximately 14,000 employees. This number will decrease with the proposed move of some of the BBC's staff to Salford and central London in the coming years.

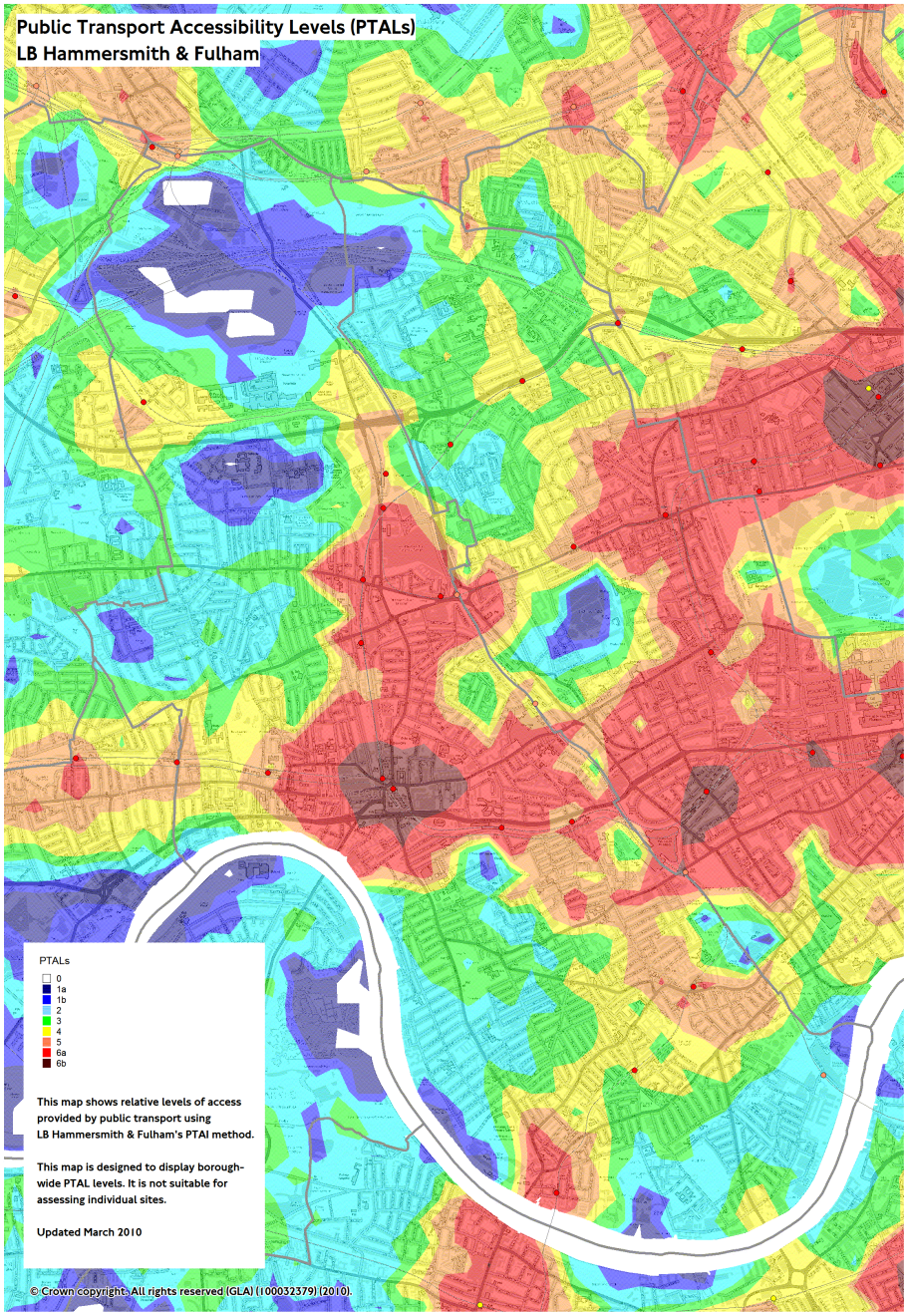
In recent decades there has been a substantial change in the composition of businesses with a significant decline in traditional manufacturing, although the publishing, printing and recorded media sector has grown. Smaller firms have become more important: 76 percent of businesses have fewer than five employees.

To the north of the borough the Hythe Road industrial area forms part of the extensive Park Royal area. Park Royal is the closest industrial and warehousing area to central London and also serves Heathrow. It houses nearly 2,000 businesses, more than any other industrial estate in Europe, providing around 40,000 jobs. It is home to the growing economic clusters of food and drink, transportation and logistics, and TV and film businesses. The Hythe Road area in H&F is also developing as an area specialising in the recycling of electrical and construction and other waste.

The River Thames and a section of the Grand Union Canal in the north of the borough enhance the environment and character of the borough and provide important opportunities for leisure and recreation. However the Thames restricts movement to the south of the borough with H&F being a high-risk flood area.

2.3 The Borough's Transport Geography

As an inner London borough, H&F is relatively well served by public transport as the 2010 Public Transport Accessibility Level (PTAL) map below shows (0= poor transport access, 6b = best transport access). However there are pockets in the north and south of the borough that are still poorly served by bus or rail and rate as 1 or 2 on the PTAL scale.

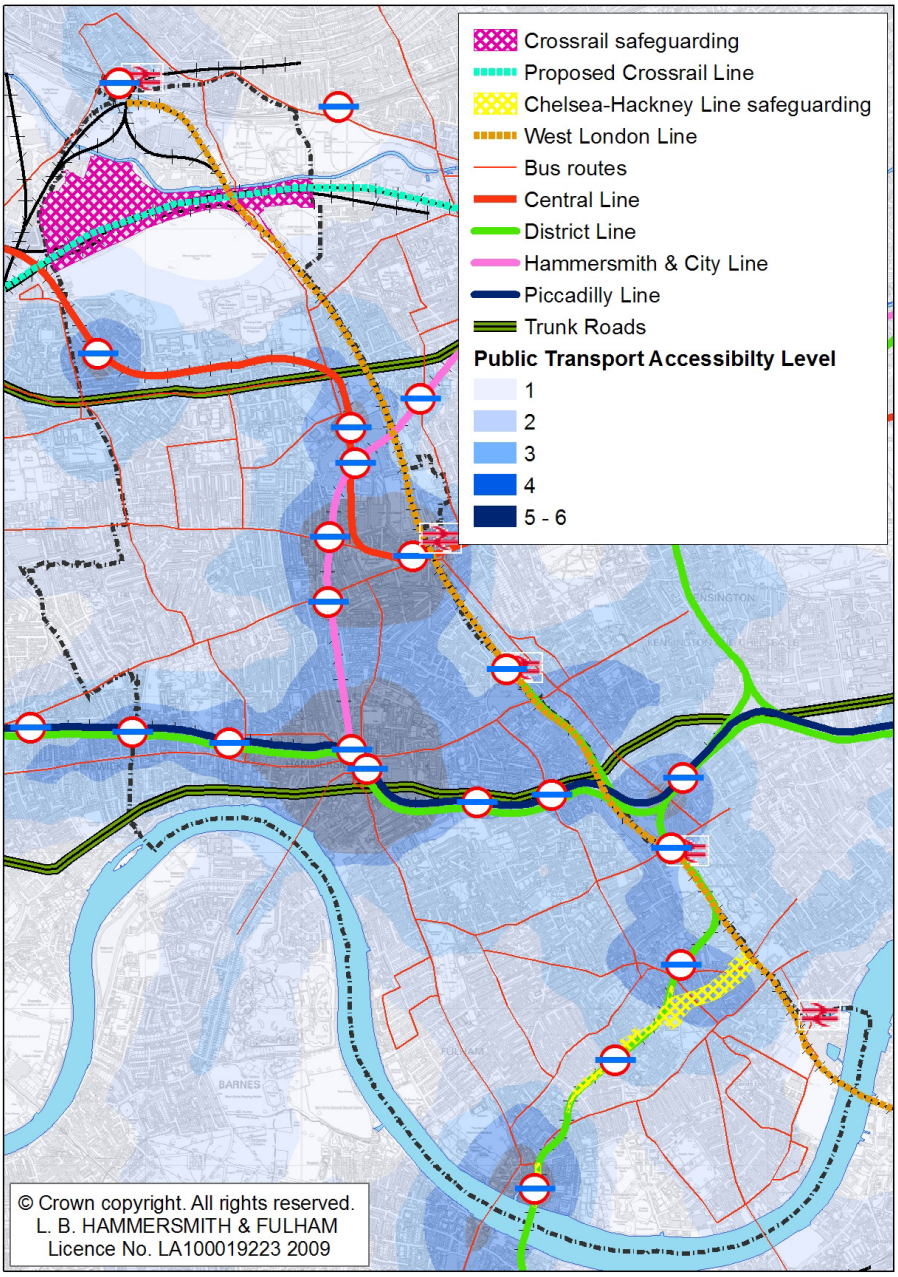


The borough is well served by the London Underground network with the Piccadilly, District, Central, Hammersmith & City and Circle lines connecting the borough with central London, and west and south-west London. The Circle line was extended to Hammersmith in late 2009, which almost doubled the frequency of service, and a new station at Wood Lane was opened in association with the Westfield development in 2008. The only full north-south rail route in the borough

is the West London national rail line, which runs along the borough's eastern boundary.

Local services were reintroduced to this line in the early 1990s after a 50 year gap and services have been enhanced since TfL took over responsibility for the franchising of the local services on the line in 2007. The council, with developer partners, the Royal Borough of Kensington and Chelsea and TfL, has successfully secured the opening of new stations at West Brompton (1999), Shepherds Bush (2008) and Imperial Wharf (2009).

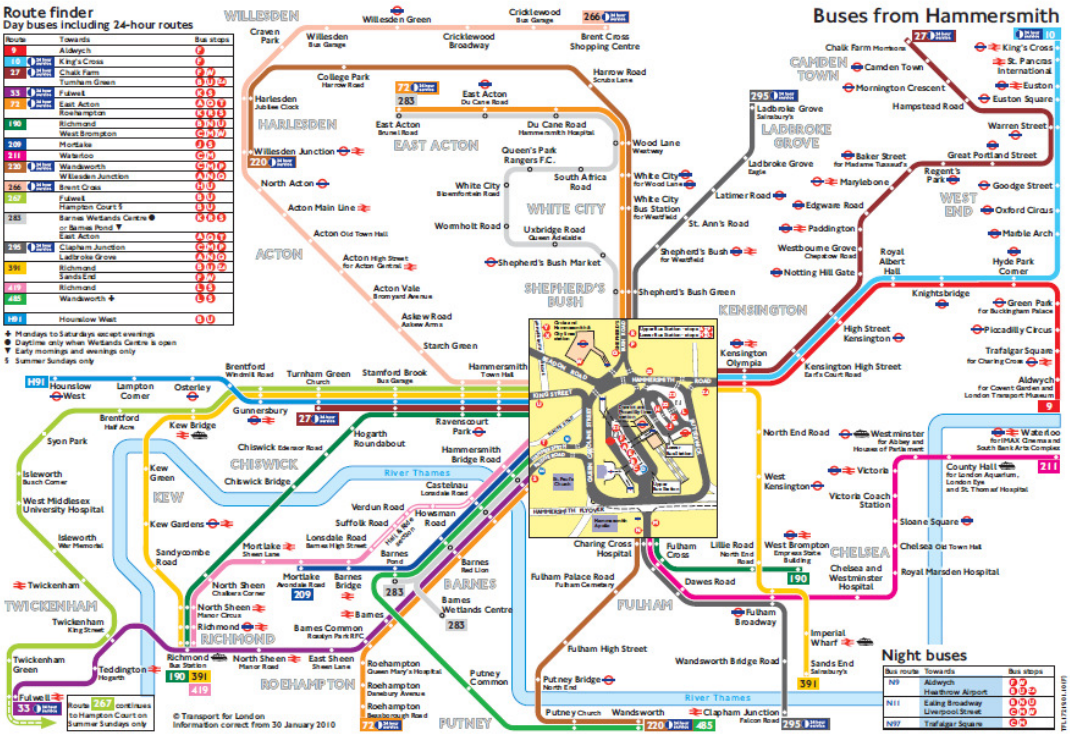
The borough's residents are highly dependent on the Underground, with 36 percent of residents using it to travel to work. We also have one of the highest rates of cycling in London, with five percent of residents using this mode to get to work.



Rail and Underground networks in the borough showing their impact on PTAL

The borough has a reasonably dense and comprehensive network of bus routes which have improved in quality, frequency, accessibility and reliability since the advent of TfL and the systematic introduction of bus priority measures, such as bus lanes. However, they are still subject to low speeds and unreliability, mainly as a result of traffic congestion.

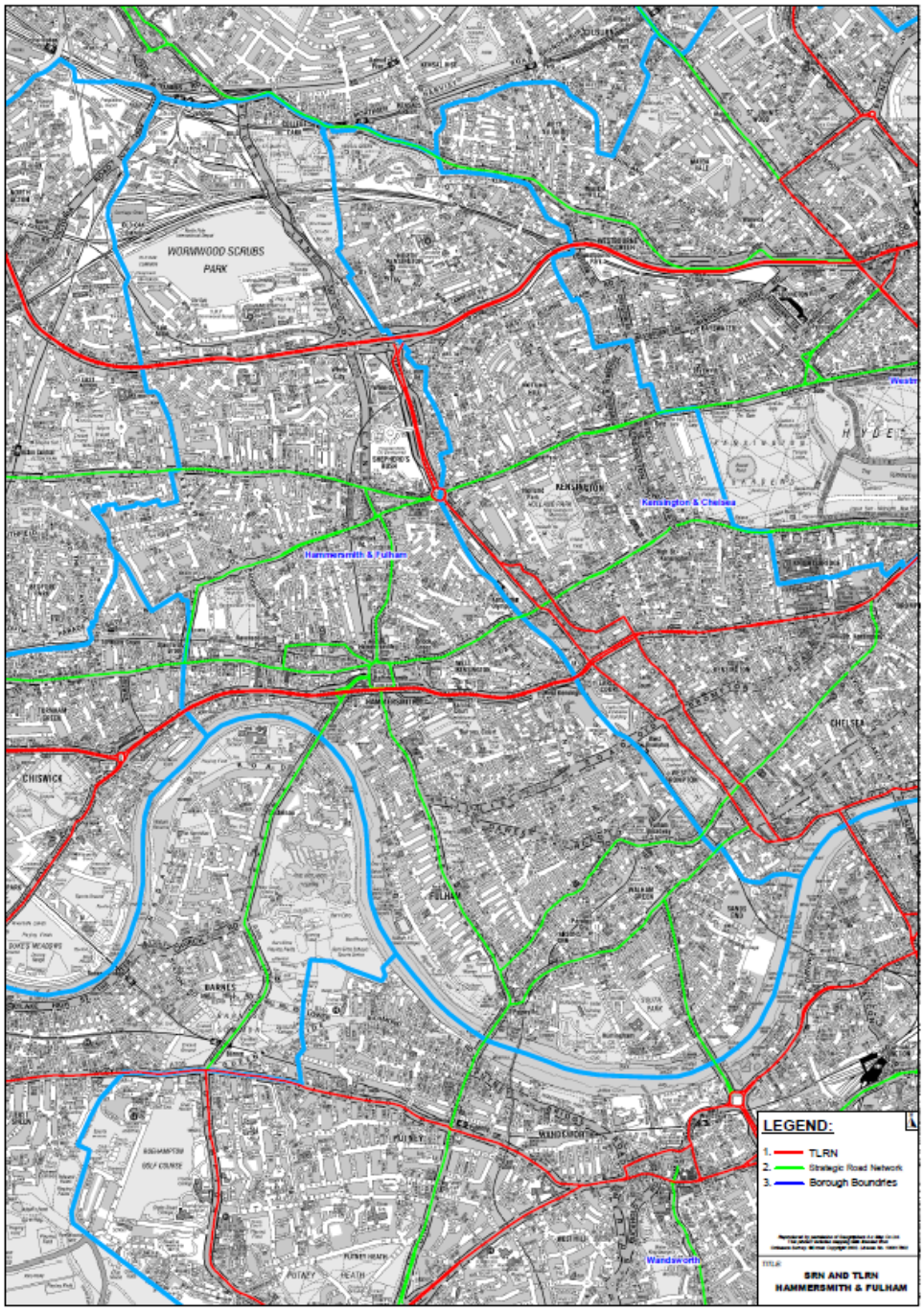
The map below shows the 2010 bus network serving Hammersmith.



Two major TLRN (Transport for London Road Network) roads run through the borough – the A40/A40(M) Westway in the north, which carries traffic between central London and Hillingdon and becomes the M40 through Buckinghamshire and Oxfordshire to Birmingham, and the A4 which connects central London to Heathrow and becomes the M4 through the Thames Valley to Bristol, the west country and south Wales.

A short stretch of the former M41 motorway which connects the A40(M) with Shepherd's Bush and the Holland Park roundabout has now been downgraded to become the A3220 but is still part of the TLRN. North-south roads in the borough are limited to only one route (Putney Bridge - Fulham Palace Road – Hammersmith - Shepherds Bush Road - Wood Lane - Scrubs Lane) running the whole length of the borough. Hammersmith & Fulham has the most congested roads in London (Travel in London TfL report number 1 2009) and this congestion is particularly acute on the limited number of north-south routes.

The map overleaf shows the boroughs road network including the TLRN in red and the SRN in green.



The borough's transport infrastructure has changed relatively little since its major development during the second half of the 19th century. The most significant changes during the second half of the 20th century were:

- The construction of two major new roads, the A4 dual carriageway, including the Hammersmith flyover the A40(M) Westway, both of which facilitated traffic growth
- The closure of local rail passenger services such as Olympia-Edgware Road
- The extension of the Central line from Shepherds Bush to Ealing, Greenford and West Ruislip

- The extension of the Piccadilly line from Hammersmith to Acton, Uxbridge, Hounslow and Heathrow Airport
- The withdrawal of all tram and trolleybus services
- A steep decline in the use of the river Thames for freight and passenger services
- The rapid expansion of Heathrow Airport to become one of the world's busiest airports and the consequent increase in road traffic and the use of public transport in the borough.

In contrast to the relative stability of the infrastructure, the demands placed on it have continued to change and increase. These increasing demands are attributable to three main causes:

- An overall increase in personal prosperity, which has resulted in: an increase in demand for travel, more cars being used and more goods being transported and consumed
- The increasing centralisation of facilities and services, resulting in many people having to travel further to satisfy their basic needs for employment, shopping, hospitals, entertainment, recreation, etc
- Population and employment growth.

2.4 London-wide, sub-regional and local policy influences

The council's corporate priorities, as expressed in the Hammersmith & Fulham Community Strategy 2007-14, (SCS) which has been issued under the auspices of the Borough Partnership (LSP) are to;

- **Provide a top quality education for all**
- **Tackle crime and antisocial behaviour**
- **Deliver a cleaner and greener borough**
- **Promote home ownership**
- **Set the framework for a healthy borough**
- **Deliver high quality, value for money, public services**
- **Regenerate the most deprived parts of the borough.**

An efficient, effective, accessible and environmentally sustainable transport system is a necessary foundation for all these priorities but is particularly important to the third (cleaner and greener borough), fourth (healthy borough) and seventh (regeneration) priorities.

The goals of the Mayor's Second Transport Strategy (MTS2), issued in May 2010, are to:

- **Support economic development and population growth**
- **Enhance the quality of life for all Londoners**
- **Improve the safety and security of all Londoners**
- **Improve transport opportunities for all Londoners**
- **Reduce transport's contribution to climate change and improve its resilience**

- **Support delivery of the London 2012 Olympic and Paralympic Games and its legacy.**

There is a great deal of congruence and mutual support between these two sets of objectives as the table below shows:

MTS2 Goal	**LBHF Core values**						
	HF1: Top quality education	**HF2:** Tackle crime and antisocial behaviours	**HF3:** Deliver a cleaner and greener borough	**HF4:**Promote home ownership	**HF5:** Healthy borough	**HF6:**High quality public services	**HF7:**Regenerate most deprived parts of borough
MTS1: Support economic development and population growth	Strong	Medium	Medium	Medium		Strong	Strong
MTS2: Enhance quality of life	Strong	Strong	Strong	Strong	Strong	Strong	Strong
MTS3: Improve safety and security		Strong					
MTS4: Improve transport opportunities	Medium		Strong		Strong	Strong	Strong
MTS5: Reduce transport contribution to climate change and increase its resilience			Strong		Strong		
MTS6: Support 2012 Olympics					Medium		Medium

The council is also in the process of preparing its Local Development Framework, where the objectives are highly relevant to those of the LIP2. These too are related to the Community Strategy and the 2010 London Plan. The Core Strategy Preferred Options document was issued in June 2009 and states that the principal spatial factors providing the framework and context for more detailed planning policies and frameworks are:

- Planning for regeneration and growth
- Planning for the location of employment activities
- The hierarchy of town and local centres
- The long term strategy for council housing estates.

Within this context, the preferred transport option is two fold:

- **To plan for improved transportation and accessibility in the borough especially on north-south routes, and to seek better connections to national and regional rail.**

- **To relate the intensity of development to public transport accessibility and highway capacity.**

The options include the following:

- Continuing to promote major improvements with new stations and enhanced local and sub-regional passenger services on the West London Line
- Supporting the implementation of Crossrail and the national High Speed Heathrow rail link proposal and seeking stations with an interchange with the West London Line in the Old Oak Common area
- Seeking a new station on the Central Line at Du Cane Road
- Seeking localised improvements to the highway network to reduce road congestion on north-south routes
- Increasing the opportunities for cycling and walking, for example by extending the Thames Path National Trail
- Securing access improvements for all, particularly people with disabilities, as part of planning consents for new developments in the borough and through the councils annual programe of investment.
- Ensuring adequate parking is provided to meet the essential needs of development without impacting on the quality of the urban environment
- Increasing capacity and reliability of the Piccadilly and District lines
- Calling for the Chelsea-Hackney line (Crossrail 2) to be routed via Chelsea Harbour/Sands End.

2.5 Sub-Regional Policy

Hammersmith & Fulham is in the west London sub-region as defined in the 2010 London Plan and MTS2, with a great deal of overlap with central London under the ‘fuzzy boundaries’ system. In February 2010, TfL issued a document entitled ‘West London: Developing a Sub-regional Transport Plan: Interim Report on

challenges & opportunities'. The document identifies the following transport challenges for west London:

- **Improve north-south public transport connectivity**

North-south public transport connections within west London are relatively sparse and consequently many north-south journeys are undertaken by private vehicles. Improving access to Heathrow and strategic industrial locations such as the Park Royal industrial estate will be an early priority

- **Enhance east-west capacity and manage congestion**

Although there are strong radial connections from west London to central London, these are often crowded or congested and enhancing east-west capacity and managing congestion is an immediate need. It is predicted that congestion on east-west corridors will continue to grow, even with current and planned upgrades. Tackling these issues would benefit the economy and quality of life in west London.

- **Improve access to, from and within key locations**

The transport needs of major buildings and developments such as Heathrow, White City, Earls Court and Westfield Shopping centre must be addressed. Congestion, street-scenes and public transport connectivity within town centres are also in need of improvement, especially those centres identified for future growth, such as Harrow and Shepherds Bush.

- **Improve air quality**

There are significant air quality challenges in west London at Heathrow, along the A406 North Circular road and along the Great Western mainline corridor. Measures set out in the Mayor's Air Quality Strategy will address air quality issues on a London-wide level but targeted local measures could be employed to tackle particular hotspots and improve the health and well-being of those in the region.

- **Enhance the efficiency of freight movements in west London.**

Because of its gateway role, west London is home to a huge concentration of freight operations. Improving the efficiency of freight movements would benefit the economy of west London, the quality of life of its residents and visitors, and give rise to environmental benefits through reductions in emissions of climate change gasses and air quality pollutants.

Most of these challenges are as relevant to Hammersmith & Fulham as they are to other west London boroughs, but H&F is more concerned about limited and congested north-south road routes than east-west ones. Hammersmith & Fulham differs from other west London boroughs in several respects, notably having lower car ownership and use. Forty-six percent of households in H&F have one

or more cars, a fall from 51 percent in 2001. The table below compares car ownership rates in the west London boroughs.

Borough	Car ownership by household (%)		
	No car	One car	Two or more cars
Brent	43	43	14
Ealing	36	48	15
H&F	54	39	7
Harrow	30	45	25
Hillingdon	28	44	28
Hounslow	33	46	21

Traffic congestion is also higher in H&F than the other west London boroughs, as the table on page 18 shows. According to the TfL travel in London Report 1, published in 2009, we are, the most congested borough in London with 7.6 million minutes lost in delay per year.

Borough	Average speed (kph) and delay (minutes per km)					
	a.m. peak		interpeak		p.m. peak	
	Speed	Delay	Speed	Delay	Speed	Delay
H&F	22	1.1	23	1.0	16	2.1
Brent	25	0.9	27	0.7	23	1.1
Ealing	27	0.8	29	0.4	25	0.8
Hounslow	30	0.8	37	0.6	31	1.0
Harrow	30	0.6	30	0.8	28	0.8
Hillingdon	46	0.3	50	0.2	42	0.5

Hammersmith & Fulham is often regarded as a 'buffer borough' between west and central London.

The table on pages 19 to 21 shows how the sub-regional challenges relate to the LIP2 objectives and is entitled;

How the LIP2 objectives relate to the West London sub-regional Transport Strategy challenges and the local strategic partnership, sustainable community strategy core values.

LIP Objective	West London Sub Regional Transport plan Challenge					LSP/SCS Core Value						
	Improve north-south public transport connectivity	**Enhance east-west capacity and manage congestion**	**Improve access to, from and within key locations**	**Improve air quality**	**Enhance efficiency of freight movements in west London**	**Top quality education**	**Tackle crime and antisocial behaviour**	**Cleaner and Greener borough**	**Promote home ownership**	**Healthy borough**	**High quality public services**	**Regenerate most deprived parts of borough**
Support sustainable population and employment growth in regeneration areas	The regeneration areas are strung along a north south corridor and the West London Line is very important in connecting them . Most of the regeneration areas are on the Clapham Junction-Hammersmith-White City corridor which the WLSRTS has identified as a high priority	LBHF is more concerned with reducing congestion on its limited north-south routes, but improving the efficiency east-west roads is also important for providing viable and sustainable access to the regeneration areas.	All the regeneration areas are having or will have transport studies done for them, including White City and Earl's court, in which TfL have been fully involved. Studies are also beginning to be progressed into access to Old Oak Common HS2 station		Efficient freight movement will be essential to the success of the regeneration areas. We are looking to promote rail and water transport of freight, especially in the Old Oak common area, the provision of consolidation and delivery centres in the major development sites, and promoting the use of electric and cleaner fuelled delivery vehicles	High quality education facilities will be provided as appropriate in the regeneration areas, or there will be good walking, cycling and public transport links between the regeneration areas and the educational facilities	Improving the quality, comfort and safety of the street environment will be both a facilitator and a consequence of reducing crime and antisocial behaviour	A high quality, healthy environment is essential to the success of regeneration plans	Higher levels of home ownership will contribute to the sustainability of regeneration plans by ensuring that people remain in the borough at more stages of their life cycles	Improving the health of the borough will underlie the success of the regeneration areas.	High quality public services, including transport networks and infrastructure, will be an essential prerequisite of the success of the regeneration areas.	Transport links are a fundamental part of the regeneration plans
Improve efficiency of road network	We are particularly keen to improve the efficiency of our limited and congested north-south roads. This will improve the performance of bus services such as Route 220	Our corridors programme aims to improve efficiency and reduce congestion and includes important east-west routes such as Goldhawk	Improving efficiency of the road network will improve access to key locations, particularly the north-south roads connecting our	Smoothing traffic flow and encouraging walking, cycling and public transport use will contribute to the improvement of air	Most freight will continue to be transported by road, so improving the efficiency of the road network is vital for the efficiency of freight movement.	An efficient road network, with the lowest possible numbers of children being driven to school, will facilitate the developme	Reducing traffic offences such as illegal parking will contribute to the efficiency of the road network. Research has shown	Improved efficiency of the road network, with less congestion, will contribute towards a cleaner, greener borough,	A more efficient road network will make the borough a more attractive place to live and therefore help to	A more efficient road network will contribute to improving the borough's health in a number	A more efficient road network is both a high quality public service in itself and contributes to the efficiency of other public	The regeneration areas need an efficient road network, particularly to connect them north-south.

		Road. We will also work with TfL on improvements to the TLRN east-west routes that run through the borough, i.e. the A4 and the A40.	regeneration areas.	quality.		nt and retention of high quality educational facilities.	that people who commit traffic offences often commit other offences so there is a bonus from traffic enforcement	egg by improving air quality	encourage home ownership	of ways, from improving air quality to reducing response times of emergency services and improving access to medical facilities	services.	
Improve quality of streets			Higher quality streets will encourage walking and cycling and therefore improve connectivity, but mainly at the local level.	Improving the quality of streets will encourage walking and cycling and there fore improve air quality.	Neighbourhood and corridor plans aimed at improving the quality of streets will provide appropriate freight loading facilities.	Better quality streets will encourage children to walk and cycle to school	Improving the quality, comfort and safety of the street environment will be both a facilitator and a consequence of reducing crime and antisocial behaviour	Improved quality of streets, with less clutter will contribute to a cleaner, greener borough	Better quality streets will make the borough a more attractive place to live and therefore help to encourage home ownership	Better quality streets, by encouraging walking and cycling, will contribute to the health of borough residents	Providing and maintaining high quality streets is a highly visible public service	Regeneration areas will be designed to incorporate high quality streets.
Improve air quality	Improving north-south public transport connectivity will help improve air quality by reducing private motor vehicle miles	Reducing congestion and "stop-start driving" will improve air quality.		Identical objective/challenge	Use of rail and water for freight where possible, and electric and cleaner fuelled delivery vehicles, will help improve air quality	Improving air quality will improve children's health and their learning ability		Improving air quality is a key component of a cleaner, greener borough	Better air quality will make the borough a more attractive place to live and therefore help encourage home ownership	Improving air quality will improve the health of the borough's residents		Better air quality will make regeneration areas more attractive

Make it easier for everyone to gain access to transport opportunities	Improving north-south public transport connectivity will assist this.	This will make access to transport opportunities easier	This will make access to transport opportunities easier	Improving opportunities for walking, cycling and public transport use and improving air quality complement each other	Improving efficiency of freight movement will give local businesses opportunities to access markets	Improving transport opportunities will enable children and adults from all sections of the community to access high quality education facilities	Reducing crime and fear of crime on-street, at stations and bus stops will reduce a significant barrier to accessing transport opportunities.	Measures such as decluttering will reduce barriers to travel.	Increasing transport opportunities will increase the attractiveness of the borough as a place to live and therefore help encourage home ownership	Greater access to transport opportunities will improve the health and well being of borough residents	Increasing transport opportunities requires high quality public services, egg road maintenance and public transport	Improved transport opportunities are a key to the success of the regeneration areas
Control parking spaces fairly		Parking controls are an important part of the efficiency of the highway network	Parking controls can reduce short commuter car trips, thereby reducing congestion and improving connectivity	Parking controls can reduce short commuter car trips, thereby improving air quality	Fair parking controls will give businesses appropriate loading facilities.	Need to protect residents from cars taking children to schools		Parking controls can help to reduce short commuter car trips and thereby improve the environment	Parking controls can make the borough a more attractive place to live, thereby helping to encourage home ownership	Parking controls can ensure necessary access, egg for disabled residents	We aim to maintain and improve the quality of the council's Parking Service	Appropriate parking controls will be essential to the success of the residential areas.
Reduce numbers killed and injured		Corridor improvements will incorporate road safety improvements. A large proportion of delays on the road network are the result of collisions		Making roads safer will encourage walking and cycling and contribute to improvement of air quality	A particular issue is the high proportion of cyclist injuries caused by HGVs. Our LIP has a programme of HGV-cyclist training and awareness	Improving road safety will enable more children to walk and cycle to school	Danger from vehicles contravening traffic regulations will be reduced as part of our road safety programmes	Improved road safety will encourage walking and cycling and contribute to a cleaner greener borough	Improved road safety will make the borough a more attractive place to live			

2.6 Transport Problems, Challenges and Opportunities in Hammersmith & Fulham

- **Problems**

The main transport problems facing the borough are:

- The relatively poor level of personal accessibility available to many borough residents, particularly disabled people
- The congestion of road traffic and the overcrowding of rail services, particularly at peak times and particularly on the limited number of north-south road and rail routes in the borough
- The recent and predicted future growth in the demand for travel
- The environmental consequences of transport use, notably air quality, noise and visual intrusion
- Insufficient car parking supply to match increased demand (both on and off-street)
- Public transport service performance and provision
- The economic impact of transport/traffic conditions
- The impact of air travel on the borough
- Unpleasant or unsafe road conditions for vulnerable road users, i.e. pedestrians and cyclists.

- **Challenges**

The essential transport challenge facing H&F is the need to tackle the transport problems outlined above to improve the opportunities and quality of life of existing borough residents and businesses while accommodating the additional demands placed on the borough's transport system by employment and population growth and the regeneration of the most deprived parts of the borough. This can be summarised as:

- The need to co-ordinate transport, land-use planning and economic development

- **Opportunities**

The borough has limited opportunities to deliver additional transport capacity on either the highway or public transport networks. Given the predicted increase in jobs and population in the borough promoted by the 2010 London Plan and the five regeneration areas in the borough, there is an increased need to maximise the capacity of the existing networks.

We think this can be achieved by the highway and transport authorities carrying out the necessary upgrades to the rail networks, and improvements to the efficiency of the highway network, and through a tailored package of travel demand management initiatives to minimise the need to travel, especially by car.

Through the TfL funded integrated transport programme and the council funded annual footway maintenance programme we have the opportunity to secure access improvements for all pedestrians, particularly people with disabilities.

2.7 Borough Transport Objectives

The borough transport objectives have been drawn up taking into account all these factors. They are:

1. **Support sustainable population and employment growth in the five regeneration areas - White City Opportunity Area, North Fulham Regeneration Area, Hammersmith Town and Riverside, South Fulham Riverside and Old Oak Common and Hythe Road area.**

Timeline; This work will continue throughout the period of the LIP2, up until 2031. Transport studies for several of the regeneration areas are well advanced, with the next two years or so being taken up with design work and construction beginning after that. Old Oak Common is likely to be towards the end of the plan period, depending on the timescale for HS2.

2. **Improve the efficiency of our road network**

Timeline; Ongoing throughout the plan period to 2031.

3. **Improve the quality of our streets**

Timeline; Ongoing throughout the plan period to 2031.

4. **Improve air quality in the borough**

Timeline; Ongoing throughout the plan period to 2031.

5. **Make it easier for everyone to gain access to transport opportunities**

Timeline; Ongoing throughout the plan period to 2031.

6. **Support residents and businesses by controlling parking spaces fairly**

Timeline; Ongoing throughout the plan period to 2031.

7. **Reduce the number of people injured and killed on our streets**

Timeline; Ongoing throughout the plan period to 2031.

The following chapters show how we intend to translate these high level objectives into practical and deliverable programmes.

2.8 How the MTS Goals can be achieved in the borough

Goal	Challenges	Outcomes	H&F Contribution
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	The council will work with TfL and other public transport operators to secure improvements in public transport. Where appropriate we will aim to secure contributions from developers for improving public transport capacity. We will seek to reduce the need for (motorised) travel through smarter travel programmes, including school and workplace travel plans, land use planning policies that encourage development to locate housing near to local facilities or provide such facilities and encourage innovative practices such as home-working and teleconferencing We will campaign for additional rail stations, notably on the Central Line at Du Cane Road and HS2/Crossrail hub station at Old Oak Common.
	Improving transport connectivity	Improving people's access to jobs	We will seek to improve safety and conditions for pedestrians and cyclists. We will promote further public transport improvements such as better services on the West London Line (including the restoration of the direct link to Gatwick airport.
		Improving access to commercial markets for freight movements and business travel, supporting the needs of business to grow	We will cooperate with TfL in smoothing and improving traffic flow on the borough's roads, particularly the limited number of north-south routes in the borough, through the LIP corridors programme and better control of streetworks.

	Delivering an efficient and effective transport system for people and goods	Smoothing traffic flow (managing delay, improving journey time and reliability and resilience	We will contribute to smoothing traffic flow through the implementation of our network management duties, the better management of streetworks, including the new permit system, and our neighbourhoods and corridors programme
		Improving public transport reliability Reducing operating costs	The above measures will contribute to improving public transport reliability and reducing operating costs
		Bringing and maintaining all assets to a state of good repair	We aim to bring all assets to a state of good repair through our LIP maintenance programme and our own revenue funds. To include, specifically, accessibility improvements e.g. dropped kerbs and complaint footway gradients. We will collect data on asset conditions for all London boroughs on behalf of TfL
		Enhancing the use of the Thames for people and goods	We will work with TfL, river service operators and other partners to secure the provision of more river passengers services in south west London, e.g. river taxis and scheduled services between the Fulham Riverside development area and central London and Putney Bridge. We will furthermore promote step free access on all river passenger services and terminals within the borough.
Enhancing the quality of life for all Londoners	Improving journey experience	Improving public transport customer satisfaction	The council will contribute to improving public transport customer satisfaction by improving the safety, convenience and quality of access (to include the height of bus stops, seating and shelters, countdown and step free access to stops and stations) through our neighbourhoods and corridors LIP, and council revenue funded maintenance programme
		Improving road user satisfaction (drivers, pedestrians, cyclists	We will contribute through our corridors and neighbourhood's programmes, in facilitating the implementation of cycle superhighways, in traffic smoothing and improving the management of highway works, to include step free access during works.

		Reduce public transport crowding	We will lobby and liaise with transport operators to secure public transport capacity enhancements, and where appropriate, secure developer contributions to such enhancements. We will encourage bus and rail passengers to transfer to walking, cycling or home-working where appropriate through travel plans and other smarter travel initiatives.
	Enhancing the built and natural environment	Enhancing streetscapes, improving the perception of the urban realm, and developing 'better streets' initiatives	We will introduce 'better streets' schemes as part of our neighbourhoods and corridors programmes, major schemes for which we intend to bid for funding (e.g. Goldhawk Road) and developer funded schemes. Our better streets are designed so as to meet the needs of all road users including the mobility and visually impaired.
		Protecting and enhancing the natural environment	We will seek to preserve and enhance the natural environment wherever possible as part of our transport programmes, e.g. by planting street trees and protecting and enhancing our existing street trees (ensuring their roots do not compromise pedestrian movement) and areas of natural interest.
	Improving air quality	Reducing air pollutant emissions from ground-based transport, contributing to EU air quality targets	We will contribute by encouraging walking and cycling through our smarter travel, neighbourhoods and corridors programmes, encouraging the use of electric and other cleaner vehicles by offering discounts on parking permits and securing the introduction of more electric vehicle charging points (without compromising road user safety), and planting more street trees.
	Improving noise impacts	Improving perceptions and reducing impacts of noise	We will examine the areas which are subject to the highest levels of transport noise as part of our corridors and neighbourhoods and maintenance programmes. Where appropriate, we will undertake measures to mitigate the noise, such as planting trees, installing acoustic barriers and resurfacing roads with 'quieter' materials. Greater use of electric vehicles, walking and cycling will also contribute to noise reduction
	Improving health impacts	Facilitating an increase in walking and cycling	Our corridors and neighbourhoods and smarter travel programmes all aim to encourage more people to walk and cycle, including the mobility impaired and the elderly.

Improving the safety and security of all Londoners	Reducing crime, the fear of crime, and antisocial behaviour	Reducing crime rates and improving perceptions of personal safety and security	Our Community Safety Board aims to reduce crime and antisocial behaviour. Our corridors and neighbourhoods programmes will help in this by improving the quality of streets and public spaces making all road users feel safer and more confident in navigating our network. All ability cycle training will give cyclists the skills, knowledge and confidence to ride on roads rather than footways.
	Improving road safety	Reducing the number of road traffic casualties	Highway engineering measures to reduce collisions and casualties will be a key part of our corridors and neighbourhoods programmes, and improving asset conditions will contribute to this, e.g. by improving road surfaces. Our smarter travel programme includes cycle training and road safety education.
	Improving public transport safety	Reducing casualties on public transport networks	We will co-operate with them on any proposals to improve safety at bus stops and station entrances as appropriate
Improve transport opportunities for all Londoners	Improving accessibility	Improving physical accessibility of the transport system and improving access to services	Our neighbourhoods and corridors programmes will assist in improving the physical accessibility of the transport system, e.g. in making bus stops accessible, installing dropped kerbs, accessible crossings and suitable footway gradients to improve the accessibility of walking and cycling routes to bus stops and rail stations
	Supporting regeneration and tackling deprivation	Supporting wider regeneration	Transport studies are being developed for our major regeneration sites at White City, Earls Court, Fulham Riverside, Hammersmith Town Centre and Old Oak Common
Reduce transport's contribution to climate change and improve its resilience	Reducing C02 emissions	Reducing CO_2 emissions from ground transport	Our corridors, neighbourhoods and smarter travel programmes will contribute to the reduction of CO_2 emissions by encouraging walking and cycling and the take up of electric and other green fuelled vehicles
	Adapting for climate change	Maintaining the reliability of transport networks	We will work with TfL, other boroughs and other partners to ensure an appropriate and practicable response to extreme weather conditions such as heavy snow and ice or prolonged heat-waves and droughts. In particular to meet the needs of vulnerable residents in these circumstances.
Support delivery of the London 2012 Olympic and Paralympic	Developing and implementing a viable and sustainable legacy for the	Supporting regeneration and convergence of social and economic outcomes	We are a host borough and will work with TfL and the ODA to meet our Olympic obligations in ensuring that the Games run smoothly with minimal disruption to all of our residents and businesses.

Games and its legacy	2012 games	between the five Olympic boroughs and the rest of London. Physical transport legacy Behavioural transport legacy	The implications of the Olympic Route Network, the volleyball at earls Court and the Road Race along Fulham Road will all need to be considered together.

2.9 Equality Impact Assessment

Our EQIA and its relation to how the boroughs transport objectives is presented in appendix 1 on page 86. An initial screening assessment was undertaken during the drafting stage of the LIP2 preparation process, which involved assessing whether the draft proposals would have a high or low, positive or negative impact on the following equality groups; race, disability, gender, age, sexual orientation, religion/belief and socio-economic group.

None of the objectives were found to have a negative impact and most had positive impacts, notably objective 5 'to make it easier for everyone to gain access to transport opportunities'.

Therefore a full EQIA was not undertaken and it was not felt to be necessary to modify the objectives in light of the EQIA.

2.10 Strategic Environmental Assessment (SEA)

The Strategic Environmental Assessment of the LIP2 is presented as appendix 3 on page 108. We have cross referenced the goals, challenges and outcomes of MTS2 with the council's core values as expressed in the Hammersmith & Fulham Community Strategy (LSP SCS). From this we developed the SEA objectives which are identical to those of the LIP2 itself.

As the SEA and LIP objectives were developed together, it was not felt necessary to modify the objectives in the light of the SEA.

3. DELIVERY PLAN

3.1 Introduction

This chapter sets out our delivery plan to achieve our LIP objectives, as identified in Chapter 2. It is structured as follows:

- Section 3.2 identifies potential funding sources for 2011/12 to 2013/14.

- Section 3.3 summarises our **delivery actions** for this time period and beyond, and describes how the proposed interventions will deliver our LIP objectives.

- Section 3.4 sets out our high level **programme of investment** for this time period (extending to 2015/16 with respect to our proposed major schemes), based on the delivery actions. This section also describes how our more detailed annual programme will be drawn up in the form of an **Annual Spending Submission** to Transport for London.

- Finally, Section 3.5 outlines our approach to **programme risk management**.

3.2 Potential funding sources

Table 3.1 identifies potential funding sources for implementation of our LIP, including our three-year LIP funding allocation from TfL, contributions from the council's revenue support grant and funding from other sources including developers, local businesses, and specific grants from government (e.g. the Community Infrastructure Fund). These funding levels may vary in total and between individual years of the programme.

Our key source of funding is our LIP allocation from TfL, which amounts to £8 million across three years for LIP-funded schemes.

We have supplemented this with £15 million of the council's own funding. This represents a significant investment in our transport networks given the current economic climate. Of this, £11 million has been allocated to maintenance. This will enable us to meet our challenging road condition target and ensure that Hammersmith & Fulham maintains its high position in the borough road condition ranking. A further £2.3 million has been allocated to our extensive parking control review programme in line with our LIP objectives. £300,000 has been allocated to traffic management and a further £300,000 to smarter travel addressing our specific LIP objectives in these areas.

Funding from third party sources is estimated at £7.3 million, of which the vast majority is made up of section 106 contributions from developers. Development is likely to begin in the five regeneration sites in the borough over the next three years and the figure of £7 million is based on the need to invest in local transport infrastructure improvements to support high density developments in these areas.

INDICATIVE INVESTMENT IN TRANSPORT PROJECTS FROM 2011/12 TO 2013/14 (ALL FIGURES ARE IN £000'S)

Funding Source	**2011/12**	**2012/13**	**2013/14**	**Total**
• **Integrated Transport**				
LIP allocation*	£2,072	£1,988	£1,704	£5,764
Council capital/revenue funding**	£1,100	£900	£900	£2,900
Third Party Sources	£100	£100	£100	£300
Developer contributions***	£1,000	£1,000	£5,000	£7,000
Total	**£4,272**	**£3,988**	**£7,704**	**£15,964**
• **Maintenance**				
LIP allocation**	£450	£450	£450	£1,350
council capital/revenue funding**	£3,484	£3,533	£3,584	£10,601
Total	**£3,934**	**£3,983**	**£4,043**	**£11,951**
• **Major Schemes**				
Fulham Palace Road slip-road • LIP major scheme funding • Other funding sources	£2,760	-	-	£2,760
Goldhawk Road • LIP major scheme funding • Other funding sources	-	£1,000 £1,000	£2,000 £1,000	£5,000

* The LIP funding figures are correct as at 4 November 2010. Subsequently the Mayor has announced that the relative reduction in annual funding across London will be partially reversed and that additional funding will be available to boroughs.

** These figures are based on previous years' funding allocations and do not take into account the results of the October 2010 comprehensive spending review

*** These figures are a 'best estimate' based on previous developer projects' annual out turns and the predicted level of development in the borough over the next three years, including the five regeneration areas. A number of Development Infrastructure Studies (DIFS) are underway which will clarify this figure in due course.

3.3 Delivery Actions

This section identifies the type of interventions we are proposing to use to deliver our LIP objectives and shows how they will contribute to meeting our targets and the MTS2 goals. The proposed interventions are consistent with the proposals outlined in MTS2 (as summarised in Table A.2, Appendix A), and are based around the following MTS themes:

- Managing and enhancing the transport network
- Encouraging more cycling and walking
- Improving safety and security

- Improving London's environment
- Reducing transport's contribution to climate change and improving resilience
- Managing the demand for travel

The following seven paragraphs (3.4 to 3.10) demonstrate the links between our delivery actions and our seven LIP objectives, and show how our programme will deliver the targets identified in Chapter 4.

The priorities presented here have been subject to an Equality Impact Assessment (EIA), to ensure that they do not discriminate against any groups and that equality is promoted wherever possible. Further information on our delivery actions and the findings of the EIA are presented in Appendix 1.

Each objective has a series of delivery actions that the council and its partners will carry out. These are the same options that were consulted on as part of the transport objectives consultation, the results of which are summarised in our statement of community engagement in Appendix 2.

3.4 Objective 1 – To support sustainable population and employment growth in the boroughs five regeneration areas

We have designated five areas in the borough which we consider to be suitable for significant redevelopment to meet the employment and housing targets set both nationally and regionally.

- White City Opportunity Area
- North Fulham Regeneration area (Earls Court/West Kensington)
- South Fulham Riverside
- Hammersmith Town and Riverside
- Old Oak Common and Hythe Road area

Each of these areas are different in size, profile and transport accessibility and the table below gives the indicative values for new jobs and homes in each area:

	Homes	**Jobs**
White City Opportunity Area	5,000	10,000
North Fulham regeneration area	2,000	6,000
South Fulham Riverside	2,200	500
Hammersmith Town and Riverside	1,000	5,000
Old Oak Common and Hythe Road area	1,600	5,000
total	**11,800**	**26,500**

We consider that the following delivery actions will allow us to meet Objective 1 and our modal share targets set out in Chapter 4.

- **Improvements to bus and rail travel**

The borough is highly dependent on the Underground. Thirty-six per cent of our employed residents travel to work by tube - the highest proportion of any London borough. The Wimbledon branch of the District Line in Fulham is the most overcrowded section of Underground in west London. Improving capacity on the Piccadilly Line tube trains is needed in particular and would cater for an expected growth in population and employment opportunities in H&F and west London. Increased capacity would also improve air quality as these changes could reduce the number of people travelling to Heathrow airport by car. We welcome the government's decision to cancel the proposed third runway at Heathrow but there is still scope for an increase in passenger numbers at the airport. The development of the Fulham Regeneration Area in particular is dependent on the planned improvements to the Piccadilly and District lines. While the implementation of these improvements are beyond the council's control, we will lobby in support of them, undertake appropriate complementary access measures on our highway network and, where appropriate, seek to secure developer contributions to the improvements.

Similarly significant regeneration in the borough is reliant on the delivery of Crossrail and the capacity it frees up on the Central Line which serves the White City Opportunity Area.

- **Promoting high speed rail**

We welcome the last government's decision to progress a proposal for a High Speed Rail line (HS2) from London to the Midlands and North, which includes a station at Old Oak Common which will provide interchange with Crossrail, Heathrow Express and the Great Western main line. We also welcome the coalition government's decision to proceed with HS2 and we aim to secure their commitment to the provision of a station at Old Oak Common as soon as possible. Such a station will provide a major stimulus to the regeneration of the area and is supported by Brent and Ealing councils and the Park Royal Partnership.

Construction of HS2 is not expected to start until 2017, after the timescale of this delivery plan, but the council will continue to work with HS2, the Department for Transport (DfT) and TfL on developing studies to support the transport and regeneration cases for an Old Oak Common station and on plans for public transport and road access to the station.

- **Improved road connectivity**

Options for improved road connectivity will be developed and explored for each of the regeneration areas. Improvements at South Fulham Riverside and Old Oak Common are particularly important. Our major scheme at the Fulham Palace Road will improve north-south journey times and reliability. On the whole, however, opportunities for major road construction are extremely limited and improvements will largely be achieved through measures such as 'traffic smoothing' and the review and removal of traffic signals (see below). It would not be possible to provide sufficient infrastructure to meet unrestrained demand.

Complementary demand management measures will be needed to ensure that any increased capacity is not taken up by commuters transferring from walking, cycling or public transport.

- **Travel Demand Management principles**

Travel Demand Management (TDM) is an important tool in managing the impact of additional trips generated by new development. TDM initiatives come in a variety of packages, from off-street parking policies to master-planning areas to reduce the need to travel, especially by car.

As part of our overall approach to regeneration areas the demand management measures we will promote include restraint-based workplace parking standards, school and workplace travel plans, and the promotion of walking, cycling , public transport, home-working, smart-working and teleconferencing.

According to the latest research from TfL, the average H&F resident of Hammersmith & Fulham makes 2.9 trips per day making the boroughs population one of the most mobile in London. The following table shows how our residents choose to make those trips given the relative availability of the various transport networks.

Mode	**Share**
Rail	1%
Underground	14%
Bus	17%
Taxi/other public transport	3%
Car/motorcycle	24%
Bike	4%
Walk	37%
Total	**100%**

Whilst our car/motorcycle mode shares are amongst the lowest in London, we recognise that our borough is suitable for more active modes such as cycling and walking, and that our road network is the most congested in London. We have set challenging targets for walking and cycling which we intend to support with a wide range of projects and initiatives.

In order to support the travel needs of 11,800 new homes and 26,500 jobs, exemplar TDM policies and practices will be required which will be developed through the special planning documents for each site and aligned to the smarter travel programme of work carried out by the boroughs to manage our existing trip making profile.

- **Transport studies to support regeneration**

One example of this approach is that we are working with the Greater London Authority (GLA) and TfL on a transport study to support varying levels of development within the White City opportunity area. The PTAL of the area is very good with three tube and rail stations serving the area. However the local and

strategic road network is already congested and there are limited opportunities to increase capacity. The studies include extensive reviews of the public transport networks, both current and planned, in and around the regeneration areas.

In order to support growth, a package of mitigation initiatives is being prepared to maximise the efficiency of the local transport networks and provide increased capacity where possible. A set of demand management initiatives are to be established as part of the planning framework to maximise mode shift (where people change which form of transport they take) opportunities which will be supported by tailored off-street parking policies and travel planning tools. These include accessibility considerations and consider links to wider social issues such as obesity and health inequalities.

Investment in the local highway and public transport networks will be funded through an infrastructure fund that developers in the opportunity area will have to contribute to enable some of the cost of the interventions to be appropriately spread throughout the opportunity area.

Our programme of investment over the next three years has been tailored to ensure that no highway capacity is removed from the road network surrounding the opportunity area and the wider area of travel influence.

3.5 Objective 2 – To improve the efficiency of our road network.

Due to our location at the western inner/outer London boundary we are plagued by through-traffic using our few river crossings or coming from Heathrow. It is important to maintain economic growth by reducing congestion without releasing suppressed demand through appropriate traffic smoothing techniques.

Hammersmith & Fulham shows the highest annual vehicle delay per kilometre of network, with 7.6 million vehicle minutes being lost each year, followed closely by Kensington & Chelsea with 6.9 million vehicle minutes. (Travel in London, TfL report number 1)

We consider that the following delivery actions will allow us to meet Objective 1 and our modal share, bus and CO2 targets set out in Chapter 4.

- **Capital investment on the Strategic Road Network**

The strategic road network in London is made up of the Transport for London Road Network (TLRN) and the Strategic Road Network (SRN). The following roads are part of TLRN the in the borough. The plan on page 12 shows the TLRN and the SRN in the borough.

- **A4 – The Westway**
- **A40 – Great West Road**
- **A3320 – West Cross Route**

In addition under the Traffic Management Act 2004 several roads were designated as part of the strategic road network (SRN) for which TfL are not the highway authority but have extended powers and responsibilities.

The current TfL programme of investment on the TLRN in Hammersmith & Fulham are two schemes as follows:

- **Improving the pedestrian crossing environment at the junction of Talgarth Road with Gliddon Road and Palliser Road.**

- **Improving the pedestrian and cycling facilities along the A4 Talgarth Road.**

We support both these schemes and would welcome additional projects to improve efficiency and safety on the TLRN.

Every year we undertake road condition surveys on behalf TfL and the London boroughs on the SRN (the Road 2000 project). TfL uses the condition data results to allocate funding to the boroughs, and the boroughs use the data to report national indicators and prioritise maintenance works.

The condition data provides information on roads or sections of roads that should be considered for structural maintenance. Overall the condition of the network has generally been improving. However, in some recent years there has been a decline.

The Hammersmith & Fulham borough principal road network (BPRN) is approximately 71.5 lane km in length. If we assume the average lane width is 3.5m (conservative), then the network is approximately 250,000m^2. Based on historical trends and rates of deterioration we estimate that we need to resurface the BPRN every 10 to 15 years. As a guide therefore approximately 16,500m^2 should be treated every year to meet this target.

Our current funding of £350,000 per year is sufficient to resurface approximately 10,000m^2 per annum (resurfacing rate of £35/m^2). Therefore if the current level of funding is kept consistent then there will be a shortfall of 6,500m^2 on the BPRN. 6,500 m^2 represents around 3 percent of the network deteriorated that has already deteriorated and we are unable to treat.

This will lead to a deterioration in the condition of the network with an increase in the percentage of the overall condition index (CI) greater than 70.

This can be seen by the increase in the CI over 70 increasing from 6 percent in 2008/09 to 8.4 percent in 2009/10. This trend is likely to continue

We therefore continue to be concerned that, unless funding is provided, the condition of the network will deteriorate to a point that will take many years to address and subsequently reduce the backlog to acceptable levels.

- **Coordination of roadworks**

H&F are one of the pioneer boroughs to introduce a permit system for roadworks. This has given us greater power to coordinate roadworks and reduce disruptions.

The Traffic Management Act 2004 put into place a number of changes regarding the management of road and street works as well as a number of other activities. It set in place a legal requirement for each highway authority to effectively manage their network while taking into account the impact of such works/activities on neighbouring boroughs' networks. This was under Section 16 of the act called the **Network Management Duty (NMD)**. This placed a duty on the council to effectively coordinate all works/activities on the network, with a view to achieving (so far as may be reasonably practicable having regard to their other obligations, policies and objectives) the following overriding objectives:

a) securing the expeditious movement of traffic on the authority's road network

b) facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority.

In addition the Traffic Management Act 2004 allowed the council additional controls in the form of setting up a Permit Scheme which allow the council to charge a fee for assessing work permits and to impose conditions on works that would help minimise disruption.

In October 2009, with 18 other councils, H&F devised and ran a pilot permit scheme, which became the first such programme in the UK. IN January 2010, the London Permit Scheme (LOPS) was introduced permanently. It enabled more effective coordination applying the following guiding principles:

a) Advance plan and coordinate works with all stakeholders

b) Ensure safety

c) Minimise inconvenience to people using a street, including a specific reference to people with a disability

d) Protect the structure of the street and the integrity of apparatus .

It is the objective of the LoPS to achieve the following:

a) Provide an environment to help each of the permit authorities operating the LoPS to meet their NMD; and

b) Support those seeking to minimise disruption and inconvenience across London by encouraging good practices, mutual and collaborative working arrangements and a focus on coordination and getting it right

c) Encourage a high emphasis on safety for everyone including site operatives and all other road users with special emphasis on people with disabilities

d) Encourage a sharing of knowledge and methodology across the industries working within the London Permit Scheme

e) Emphasise the need to minimise damage to the structure of the highway and all apparatus contained therein

f) Provide a common framework for all activity promoters who need to carry out their works in London

g) Treat all activities covered by the scheme and activity promoters on an equal basis.

The scheme evaluates these objectives and makes sure they are being met by having four focused taskforce groups consisting of both member highway authorities, public utilities as well as independent stakeholders to monitor the key performance indicators (KPI) and objective measures (OM). A permit operational committee has also been set up to establish the scheme and monitor that objectives are being met.

The key performance measure is as follows:

KPI 1 - The number of permit and permit variation applications received, the number granted and the number refused

KPI 2 - The number of conditions applied by condition type.

In addition each LoPS permit authority will also apply the optional KPIs 4 and 5 from the Permit Code of Practice to demonstrate parity of treatment between their own road works and streets works undertaken by statutory undertakers.

KPI 4 - The number of occurrences of reducing the application period

KPI 5 - The number of agreements to work in Section 58 and Section 58A restrictions. (Details of Section 58 and 58A restrictions will be provided as required under Section 8.3 of the Code of Practice for Permits).

These KPIs apply to both road works and street works and will be produced at least once a year and will be discussed at coordination or similar meetings. KPIs 1, 2, 4 and 5 will also be used to measure parity in respect of the application of the provisions of the Permit Scheme. If any promoter considers that they are not being treated in accordance with Regulation 40 then they can take the matter up either through the regular coordination or similar meeting or the dispute resolution procedures highlighted in Section 16.

In addition the scheme set up objective measures (OM), on which each council must report. These are as follows:

OM 1 - Average journey times

a) To compare average journey times pre and post LoPS implementation.

b) To compare average journey times on routes through authorities operating LoPS to similar routes in authorities not operating LoPS.

OM 2 - Journey time reliability

a) To compare journey time reliability on routes pre and post LoPS implementation.

b) To compare journey time reliability on routes through authorities operating LoPS to similar routes in authorities not operating LoPS

OM 3 - Number of days of Section 74 (work overruns)

a) The percentage number of overrun days pre and post LoPS implementation.

OM 4 - Average duration of works by work type

a) The average duration of works by work type pre and post LoPS implementation.

b) The average duration of works by work type on a permit application compared to the granted permit

OM 5 - Inspections

a) The number of failed sample A and permit condition checks as a percentage of the total number of those inspections undertaken

OM 6 - Number of collaborative works

a) The number of instances of collaborative working as a percentage of the number of permits issued.

b) The total concurrent number of days of collaborative working compared to the total number of days if those works had all been carried out separately.

OM 7 - Number of deemed permits

a) The number of deemed permits as a percentage of the number of permits issued per work type and road category.

OM 8 - Number of conditions applied by condition type

a) The number of conditions applied by condition type as a percentage of the number of permits issued and compared between LoPS permitting authorities**.**

OM 9 - Number of times that works have been undertaken on a road with S58 or S58a restrictions

a) The number of times works take place on roads with a S58 or S58a restriction pre and post LoPS implementation.

- **Smarter travel demand management initiatives**

Smarter Travel is the umbrella programme of work which describes the initiatives and projects that promote sustainable and active modes of transport. It covers projects from road safety to business travel planning all with the same goal to encourage fewer trips by car.

We have an extensive Smarter Travel programme which, by encouraging walking, cycling, public transport use and home-working, reduces the number of car journeys for which there is an acceptable alternative, thereby reducing congestion and improving the efficiency of the road network. Measures include school and workplace travel plans, travel awareness campaigns and road safety education and training, which by reducing collisions will reduce disruption to the highway network.

- **On-street parking restrictions and enforcement**

Incidences of congestion can often be traced to incidences of illegal and/or inconsiderate parking. Parking controls will be reviewed as part of our corridors and neighbourhoods programmes and we also have a programme of reviewing our controlled parking zones (CPZ). For example, we intend to consult on a match day parking scheme in the south of the borough, which would reduce football match car traffic.

The Traffic Management Act 2004 provides for the decriminalisation of moving traffic offences and the council has been taking enforcement action against a number of them. We use our increasing network of CCTV cameras to facilitate this enforcement and we intend to procure a mobile enforcement unit to cover those areas that cannot be enforced using our static cameras.

- **Highway network performance monitoring**

We prioritise road investment using a simple assessment tool taking into account all the appropriate modal inputs that were the basis of LIP1 capital funding.

We propose to deliver significant improvements to Fulham Palace Road, Askew Road and Goldhawk Road over the three year period of the LIP2 delivery plan. Goldhawk Road will be subject to a major scheme submission on the basis of an independent multi-modal visioning study completed in October 2010. The study broadly indicates that significant benefits can be made to Goldhawk Road without compromising the effectiveness of it to support its current and predicted levels of traffic. The early cost estimates for this flagship project are £5m, which in the current financial climate, will be difficult to secure. However we are confident that with the current available sources of funding, including developers and the business case the study promotes, that the scheme is viable and deliverable.

- **Traffic signals timing review and rationalisation**

We will continue to work with TfL to support their signal timings review programme and modernisation programme. We support the rationalisation of traffic signals on our network and will work with TfL to identify those sites we believe to be extraneous and consult on alterations to increase network capacity and reduce congestion.

We are one of only a few boroughs to have already removed traffic signals from our network. In 2008 as part of a bus priority scheme on Hammersmith Road, a three-arm signalised junction was removed from the network and replaced with a single straight-across puffin crossing. The joint benefit of this, with associated bridge strengthening and new peak time bus lane was a saving of 29 seconds per bus. With 40 buses per hour, this provided good value for money with a first year rate of return of 90 percent on a £1 million investment.

In 2010 we identified a further set of signals that were potentially unnecessary. On Shepherds Bush Road two pelican crossings are closely located between the junctions of Netherwood Road and Blythe Road. We carried out a feasibility study as part of our 2010 local transport funding programme to assess performance and followed this with a local consultation regarding the potential removal of the northernmost crossing. The consultation was positive and the crossing has since been removed leaving the existing traffic island and upgrading of the southern crossing to a puffin along with improvements to the side road junctions approaching the retained crossing.

- **Bus Priority**

Both TfL and the council have a role to play in the efficient movement of buses through our road network. In January 2011 an audit was carried out across all 45 bus lanes in the borough in order to assess their current restrictions and enforceability. The results of this review have influenced the capital programme of investment and works are planned under the councils CPZ programme and the 11/12 corridors programme to ensure that our bus lanes are fit for purpose and current traffic conditions.

Our flagship major project at Fulham Palace Road has been shown to significantly improve bus journey times at this busy junction (details on page 54). This together with our integrated transport funded corridor scheme that will see a significant amount of pelican crossing upgraded to puffin crossings will further improve bus journey times and service levels for the many residents who use this mode.

The principle of bus priority project work was well developed and delivered over the last eight to ten years for a key input into our integrated transport corridors programme. In addition to Fulham palace Road 11/12 will see another key north south route in the borough addressed, Scrubs Lane.

- **Cycle parking and Cycle Super Highways**

Over the last ten years we have implemented many projects under the Local Cycle Network (LCN) programme and installed many on street cycle parking facilities. The last comprehensive count was carried out in 2001 which revealed that we had capacity to park 1500 cycles on street (to dedicated cycle stands). Given the level in investment over the last 10 years it is likley that this figure is now well over 2000.

Through our integrated programme of investment and planning procedures we aim to install space for 100 bikes to be parked on street per year. Given our aspirational regeneration targets and trajectories and the draft replacement London Plan housing targets it is likely that another 2000 cycle parking spaces will be delivered off street as part of developments. This is broken down across the three years of the LIP2 deliver plan to; 500 spaces in 2011/12, 700 spaces in 2012/13 and 800 spaces in 2013/14.

There are two planned cycle superhighway routes planned to pass through the boeough in the coming years. Route 10 in Shepherd's Bush in the longer term and route 9 from Hounnslow to Hyde Park in the short term. We fully support the principles of the cycle superhighway programme and will work with TfL on its successful design and implementation.

The implementation of these routes will help us to achieve our aspirational cycling targets which we will support through the implementation of supporting measures such as additional cycle parking facilities along the route and cycle training delivered as part of our smarter travel programme.

3.6 Objective 3 – To improve the quality of our streets

Streets account for the largest part of public realm within our borough. They are an important part of our daily life, whether we walk, cycle or drive.

The appearance of the street will be a major factor in determining the quality of the local townscape. Our perception of places is shaped to a large extent by our experience of the streetscape.

The character and appearance of the boroughs streets is largely dictated by the demands placed upon them. For example, Hammersmith Broadway is a very busy interchange and important traffic node, whereas many of our residential streets have relatively low traffic flows, fewer signs, less clutter and a quieter, greener streetscape character. Good streetscape design should reflect this difference and promote street design which enhances local distinctiveness within an overall consistent framework.
(Taken from the introduction to Streetsmart our highway design guide – 2005)

We consider that the following delivery actions will allow us to meet Objective 1 and our modal share, bus and CO2 targets set out in chapter 4.

- **Annual programme of investment in local transport**

Case Study 1 – Goldhawk Road

Goldhawk Road Urban Realm Visioning Study Brief

Goldhawk Road runs between Shepherd's Bush Green in the east and Chiswick High Road in the west presents an unattractive and run down face. It is a wide road and the sections to the east of Coningham Road have been characterised by long stretches of central guardrail, which we have been progressively removing. This acts as a psychological as well as physical barrier to the two sides of the road. The study will be concentrated on the section east of Paddenswick Road, some 850 metres in length, however not forgetting the western section. The main section has a fairly even mixture of residential and commercial frontages, with commercial tending to predominate towards the east and residential towards the west. It contains Goldhawk Road underground station, on the Hammersmith and City/Circle lines, which has recently seen a large increase in the frequency of its service as a result of the reorganisation of the Circle Line, and the Southern entrance to Shepherds Bush market, for whose regeneration the council has recently issued a consultation draft brief. Goldhawk Road is on the London Bus Priority Network and has two high frequency routes, 94 (Acton Green-Shepherds Bush- Piccadilly circus) with 13 buses per hour and 237 (Hounslow - Brentford-Chiswick-White City) with 8 buses per hour in each direction.

We believe that there is great potential to overcome this barrier effect and stimulate the regeneration of Goldhawk Road by giving it a highway/urban design "makeover", drawing on the experience of recent cases such as The Cut in Southwark and Lambeth, Walworth Road in Southwark, Exhibition Road in Kensington and Chelsea and Ashford in Kent.

We have commissioned a visioning study which could show how the carriageway and footway space in Goldhawk Road could be redesigned so that the barrier effect could be overcome, street furniture rationalised and de-cluttered, high quality 'streetsmart' materials used and the road's ability to function improved, as a "living street" as well as a place for people to move along and across on foot, by bike, buses and private motor vehicles and for the movement of goods.

The study looked at:

- Land uses along the road – residents and businesses, their needs for servicing and how these can be managed and improved
- Pedestrian movements along and across Goldhawk Road
- Bicycle movements along and across Goldhawk Road
- Bus movements along Goldhawk Road and the provision of comfortable, convenient and accessible stops
- Private car, taxi and goods vehicle movements along and across Goldhawk Road

- Meeting the needs of disabled people to move along and across Goldhawk road, e.g. by providing level footways, dropped kerbs and tactile paving, decluttering street furniture to provide unimpeded passage.
- The history of personal injury accidents on Goldhawk Road with a view to mitigating underlying trends.
- Providing as many trees as possible to the extent that this is compatible with the other aims of the study.
- Improving the perception and reality of safety and security in Goldhawk Road and its junctions neighbouring streets.
- Carry out a streetscape healthcheck as advised by the Council's Streetsmart Design Guide to identify the potential for improving the visual aspect of the street in order to achieve a high quality public realm.

The vision document aims to show what could be done in Goldhawk Road. It is grounded in reality – i.e. assuming that the road will have to handle broadly similar levels of traffic to the present, but imaginative and will seek to meet the needs of the mobility and visually impaired community. It does not present a detailed programme of implementation but gives some indication of how it could be implemented incrementally, subject to resource availability, and a broad assessment of costs

In the current age of austerity we seek to ensure that our annual programme of investment achieves the best return possible in terms of improvements to the quality of our streets. Consultation is a key element of this. We also work carefully to ensure synergy between the council's divisions and departments, particularly capturing any opportunities from combining our maintenance work with a wider examination of transport issues. This includes reviewing traffic calming in all streets which are to be resurfaced and carrying out a street-scene audit to help reduce street clutter.

Our annual programme of investment includes highway and footway maintenance and neighbourhoods and corridors programmes, all of which aim to improve the quality of our streets. The plan on page 38 indicates the indicative projects from the corridors and neighbourhoods programme of works we intend to deliver in 2011/12.

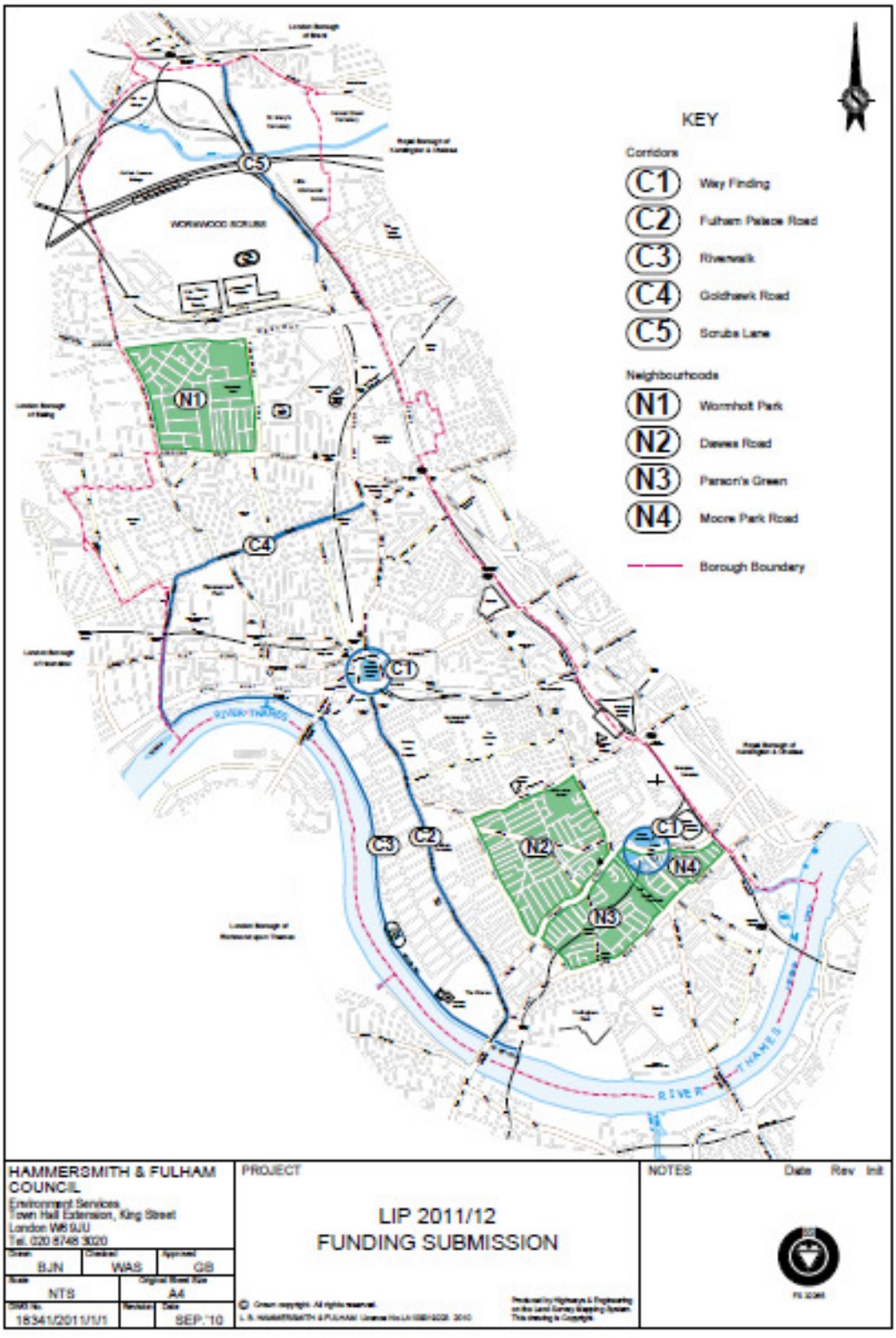
- **Highways Asset Management Plan (HAMP)**

The production of a highways maintenance management plan is not a statutory requirement, however we do have one in place that was approved in June 2006 and is under review at the moment.

The document describes the highways maintenance service, incorporating maintenance strategy, policies and standards and specifying how maintenance works are delivered. It is based on risk management, conforms to the requirements of the 2005 code of practice for highways maintenance management, and adheres to the principles of best value and continuous improvement.

The document is divided into the following sections; Introduction, Policy Framework, Service Delivery, Maintenance Strategy and Hierarchy, Inspection, Assessment and Recording, Condition Standards, Programming and Priorities, Sustainable Highway Maintenance, Financial Management and Performance Management.

It is through this plan and its current review that we shall work towards meeting our statutory obligations and our asset management targets as set out in chapter 4.



- **Extensive consultation for road improvements**

Engagement with the local community is seen as a key to the successful implementation of schemes. The council carries out 'blank canvas' consultations on all neighbourhood and corridor schemes where we seek to identify the concerns and issues of local people before considering any designs or proposals for the area. We then carry out further consultation on the proposals.

Additionally we seek to establish local stakeholder groups to work with on the detail of the schemes that we design. For example our proposals for improvements to the pedestrian realm of the Thames Path east of Putney Bridge in 2010/11 have been assisted by residents of the local senior citizens' home which is adjacent to and overlooks the Thames Path. Officers met these residents at an early stage of the design process and ensured that their local knowledge of the area and ideas for improvements were taken on board in the final design.

Consultation with blind and visually impaired people, as well as the disability forum, is essential should the council seek to promote a 'shared surface' scheme. The successes or otherwise of shared surface schemes lie in the balance of accessibility, aesthetic and practical considerations and current legislation.

- **Wayfinding, pedestrian directional signage system**

The council aims to be sensitive to the needs of local people and aims to align its annual programme to address specific community concerns. A case in point was the opening of Westfield shopping centre in Shepherds Bush in 2008, which is the largest urban shopping centre in Europe. Local businesses including representatives of Shepherds Bush market were concerned that they would lose business and that the increased footfall resulting from Westfield would not translate into benefits for the wider business community in the area. They were particularly keen to have new signage introduced in order to ensure that visitors to the area were aware of the nature and location of points of attraction in the wider Shepherds Bush area. We responded to these concerns by prioritising the design and erection of Legible London wayfinding in this area.

The council set up a local stakeholders group consisting of officers, business owners and residents in order to ensure that the design captured all local points of interest. The erection of wayfinding pillars was matched by the removal of other signs in the area as part of a decluttering exercise.

The wayfinding signs are a product of the Transport for London's Legible London system of wayfinding. This type of signage differs as it uses a 'heads-up' rather than north-up means of navigation depicting the face of the map as the same way as the user is facing. This helps people understand their immediate environment more easily and, in particular, it empowers deprived neighbourhoods to capitalise on the opportunities that reside close by. We plan to extend the system of wayfinding to the town centres in Hammersmith and Fulham in conjunction with additional streetscape improvements and decluttering.

- **Decluttering our road network**

Removing redundant signs and street furniture, combining lots of signs onto one post and removing guard rail unless there is a clear reason for them, will all improve the aesthetic quality of streets and make them more pleasant for pedestrians, particularly for people in wheelchairs and with buggies.

To date we have removed over 1,000 pieces of redundant street furniture and over 5km of pedestrian guardrail.

We will continue to take this decluttering approach and where wholesale removals (or installations) of street furniture are proposed we will seek the comments and approval of our key stakeholders. The removal of street furniture is contained within the councils 'Drivers Charter' where a target for the removal of signs is set at 400 over the next two years

- **The Streetsmart highways design guide**

Streetsmart, the council's design guide was developed initially in 2005 to successfully manage the design and maintenance of our streetscape.

Today this guidance consists of two volumes which include the standard detail drawings required to ensure quality standards and consistency and to deliver better legibility, accessibility and sustainability. We are in the process of reviewing the content in the guide to ensure the standards are all up to date with current best practice methods and materials to oversee the next five years of work across the borough.

- **Neighbourhoods investment programme**

Our neighbourhoods programme takes a holistic view of particular areas, looking at them from the point of view of all users – pedestrians, cyclists and drivers, but from the perspective that our neighbourhoods are primarily places where people live rather than travel through. The council seeks to include decluttering and accessibility improvements as a core element of each scheme.

An integral input into all our neighbourhood schemes is a thorough review of the accessibility of the local highway network. Where they are not provided dropped kerbs will be installed and footway gradients at formal and informal crossings amended to the most up to date accessible standards.

Our delivery plan through the 2010/11 transition year to the timescale of this LIP2 (to 2013/14) provides funding for four financial years and subject to indicative funding levels being maintained we intend to cover every street in the borough with a neighbourhood scheme during this period.

- **More street trees**

We will plant trees where possible and appropriate as part of our neighbourhoods and corridors programmes. Trees can help improve air quality, improve the look and feel of streets, and assist traffic-calming by conveying a message to drivers that they are in a residential area.

In the past two years we have been granted funding though the Mayor's Street Tree Fund and in both years delivered our full allocation. Finding and funding suitable planting sites is becoming increasingly difficult.

Trees that are damaged or die are replaced wherever possible.

3.7 Objective 4 – To improve air quality in the borough.

Road transport is one of the main sources of air pollution in the borough. 67% of small particulates (PM10) and 41% of oxides of Nitrogen (NOx) come from road transport in London. Transport also accounts for around 22% of CO_2 emissions in the capital, of which 80% comes from road vehicles. The other main environmental impact that traffic has in the borough is noise, which can cause serious disturbance particularly where people live in close proximity to busy roads.

Taking measures that help improve air quality can also help tackle climate change. Promoting smarter travel choices, particularly to encourage people to use more sustainable modes of transport (public transport/cycling/walking) for shorter journeys will help reduce emissions of CO_2 and have a positive effect on local air quality. Achieving a modal shift away from car journeys and increasing the number of people walking and cycling could also have beneficial effects for the local environment in terms of reducing traffic noise in some parts of the borough.

Supporting the use of low emission and electric vehicles (e.g. by helping develop re-charging points in the borough) can be beneficial for local air quality and reducing CO_2 emissions. Hybrid and electric vehicles can also help reduce traffic noise as they are much quieter than conventional vehicles, even if, for safety reasons, they are equipped to make some noise at low speeds.

We consider that the following delivery actions will allow us to meet Objective 1 and our modal share, bus and CO_2 targets set out in Chapter 4.

- **Smarter travel**

Our Smarter Travel programme aims to encourage walking, cycling and home-working, thereby reducing the amount of motorised travel and contributing to improved air quality.

In 2010 we launched the boroughs smarter travel service which brought together the road safety education and travel planning business areas. The concept was based on successful campaigns at Richmond and Surrey London boroughs, however on a more modest scale.

We have maintained approximately a 15% allocation from our integrated transport funding to support smarter travel projects and the details can be seen in our programme of investment on pages 61 to 65. Our smarter travel programme for 11/12 to 13/14 is broken down into four broad areas: children's education, training and publicity (ETP), cycling campaigns, general campaigns and travel awareness.

Children's ETP covers our practical in school training covering pedestrian training and the roadwise rangers project that will soon have its own website and is a tool to join up road safety education and sport in a fun and engaging way.

We have set ourselves some very aspirational cycling targets and to support our capital programme of investment we carry out annual cycling campaigns, including at the moment a hard hitting cycling and HGV awareness campaign.

General campaigns cover a variety of smaller initiatives including drink and drug driving and seatbelt awareness campaigns using our 'one of a kind' seatbelt demonstration sledge. This simulates an 8mph crash and is a very powerful tool in encouraging both adults and children to 'belt up'.

Travel awareness campaigns are covered in more detail further in paragraph 3.10 and are accompanied by a case study – changing places.

- **More Street trees**

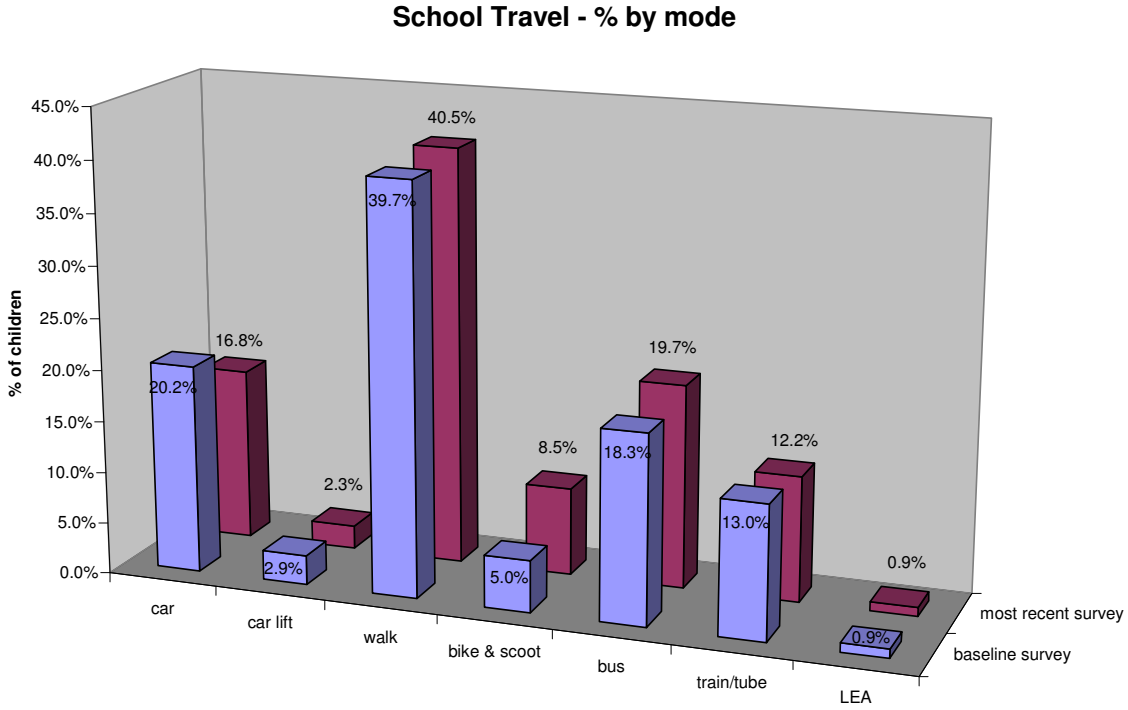
Our approach to street trees is set out on page 40.

- **School and business travel planning**

Our business travel planning programme is very successful through the development control process and we intend to roll this out to existing businesses in the three main town centres over the next three years. We currently work with and fund Westrans to co-ordinate this activity on our behalf using the framework set up by TfL. However, subject to resources, we aspire to a business travel planning post established within the council.

Seventy-two of the borough's 73 schools have completed a travel plan, of which 58 are currently valid (i.e. new, reviewed or rewritten in the past year). The chief focus of the school travel plan is to cut car use on the school run and promote the move to walking and cycling.

We have the most congested roads in London and based on our continuing successes with school travel planning we have selected the school run as one of our two local targets. In addition to the mandatory targets of increasing cycling and walking we have chosen a target to increase these two active modes of transport for school trips. Our baseline is 42% collected in school and our target for the end of 2013 is 49%.



The graph above shows combined data from 69 schools across the borough which have all done at least two pupil travel surveys and can therefore compare baseline data (collected before the travel plan was in place) with more recent data. It shows that car use has fallen from 20% to 17% and walking, cycling and bus use have all risen.

- **Cleaner vehicles and smart parking policies**

We are becoming a member of the FORS (Freight Operators Recognition Scheme). When ordering/leasing new vehicles, we specify the smallest, cleanest engines. Our vehicles are Low Emission Zone (LEZ) compatible and compliant with European standards. We are entering into a joint procurement contract with Westminster Council on school transport which specifies the use of cleaner vehicles and efficient routing to minimise vehicle miles. The council operates a passenger rickshaw which is used at community events and festival. We also have an electrically assisted freight tricycle which is currently being used by the Hammersmith Business Improvement District.

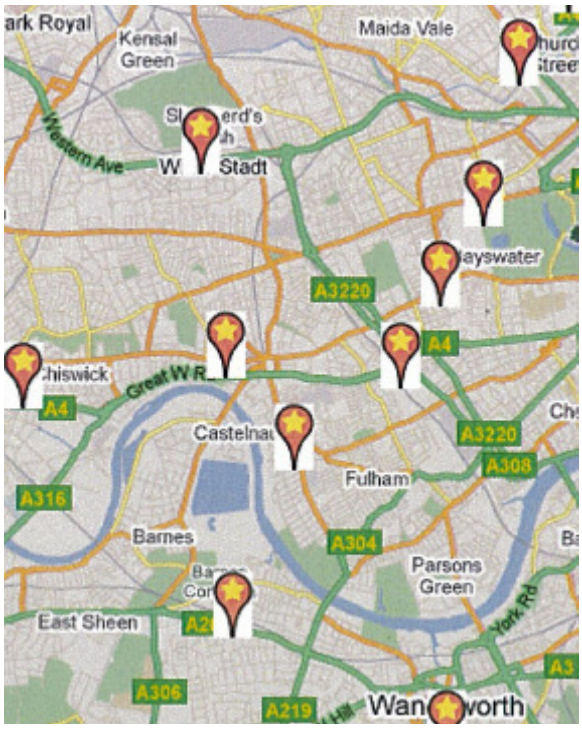
- **Car clubs and electric vehicles**

One of the main contributors to poor air quality is traffic pollution. It is therefore important that we reduce our reliance on road transport wherever possible.

Car clubs can play a role in supporting mayoral targets across a number of key strategy areas. Economically they can help reduce congestion and parking pressures, particularly in new low-car housing developments. Socially, they compliment the public transport system in providing accessibility to key services and facilities without the related costs of car ownership. Environmentally, they help reduce car usage and the associated pollution.

The council is working in partnership with operators to find appropriate numbers and locations of parking spaces so car club networks can grow. The Council will also support activities to raise awareness of the availability and advantages of car clubs. The plan on page 54 shows the proposed on street car club bays that are being trialled, starting in 2010.

The council has worked with partners to develop off-street electrical charging points for electric vehicles and aims to expand this provision to on-street parking in the future. The map below shows the off street electrical charging points in and close to the borough.



Location of off street electric vehicle charging points

1. Hammersmith Hospital, Du Cane Road W12 0HS
2. Charing Cross Hospital, Fulham Palace Road, W6 9NT
3. Kings Mall Car Park , Glenthorne Road, Hammersmith, W6 0LJ
4. Westfield shopping centre

3.8 Objective 5 – To make it easier for everyone to gain access to transport opportunities.

We recognise that travel needs vary between individuals and that travel options are not available to all due to many factors such as cost or mobility. Travel is a derived need in that it is a means to an end to either get to somewhere such as work, school or the shops or to get home.

In order for everyone to meet their travel needs we have integrated accessibility into our programmes of investment. We will continue to lobby public transport operators and authorities to install step-free access to bus, underground and overground stations and when we improve the road network incorporate the needs of mobility impaired road users in our designs.

Our access for all planning document sets out how we expect new developments to meet with our aspirations and standards we consider appropriate. Furthermore our Streetsmart design guide was developed with the disability forum whose members are consulted on all highway works.

- **Supporting public transport improvements**

Our approach to supporting public transport is set out on page 26

- **Accessible road design**

A key input into our corridors and neighbourhood programmes of investment are the needs of all road users. We have a very good working relationship with Hammersmith & Fulham Disability Forum and through them have prioritised areas that would benefit from accessibility improvements. It is using this geographical overlay to the borough we have developed the three year rolling neighbourhoods programme which seeks to cover every road in the borough.

We have a well established streetscape design guide that promotes the concept of 'naked streets' removing all unnecessary street furniture. We have supported this approach since 2005 and in that time more and more local authorities have responded with a similar interpretation of modern traffic engineering.

As part of our CPZ review programme and planned maintenance programme we carry out 'value added engineering' in regard to increasing the accessibility of our road network. Our streetsmart design manual specifies that every dropped kerb on our network should be accompanied by a double yellow line to ensure that cars do not park and obstruct the informal crossing points.

- **High quality pedestrian environment**

With one of the highest proportions of walking trips in London we recognise that walking is one of the most important methods of transport in the borough. Even those who drive and get the bus must first walk to the station or from their car making walking an integral part of every single trip made.

The table on page 25 indicates the level of funding that is invested in our road network for which a considerable percentage is for improving the pedestrian environment.

From 2005 to 2007 we invested over £5 million in our three town centres; Hammersmith, Fulham and Shepherd's Bush creating three distinct high quality pedestrian environments. Footways were widened, high quality York stone paving installed, unnecessary clutter removed, crossings relocated to pedestrian desire lines and tactile paving installed.

- **Better bus stops and stations**

The council has made extensive progress in improving the accessibility of its bus stops through the TfL Bus Stop Accessibility Programme, S106 contributions and the opportunities offered through footway maintenance improvements. These improvements, to TfL standards, will continue to stops and the approaches to them through the corridors and neighbourhoods programmes, and the standards are being incorporated in the council's streetsmart document. Progress will be regularly monitored with key stakeholders with an interest in access issues.

Opportunities are also being taken to promote the best possible standards of passenger information as is currently being introduced with TfL's Countdown system at bus stops.

Whilst new bus and rail stations would be dependent upon development opportunities, access improvements to the approaches to existing stations will continue – as is currently happening in the Ravenscourt Park area and Du Cane Road.

- **Accessible neighbourhoods**

Officers work closely with Hammersmith & Fulham Disability Forum on proposals to improve accessibility as part of neighbourhood improvements. We discuss at Disability Forum meetings how members will give the council their input on schemes at the start of the year, at the disability forum's meetings.

Accessibility improvements are identified by officers and submitted to forum members for their views. This can include volunteers from the forum carrying out their own site visits before reporting back to officers.

3.9 Objective 6 – To support residents and businesses by controlling parking spaces fairly

With three football clubs, two international exhibition centres and 17 tube stations demand for on-street parking is extremely high in the borough.

The increase in blue badge fraud in the borough is of particular concern as it abuses the on street disabled parking facilities provided. We are taking action to tackle this as well as illegal parking at bus stops that compromises the drivers' ability to stop next to the kerb and use the step free access facilities.

- **Controlled Parking Zone review programme**

We have a 'small zone' system of CPZ's which covers the whole of the borough except the Hythe Road industrial area in the far north of the borough. This discourages short intra-borough journeys and protects residents who live near tube stations and town centres. We currently have a total of 27 zones.

The vast majority of bays are shared use between permit holders and pay and display users. This makes the most efficient use of scarce parking space.

We have an ongoing programme of review of our CPZ's depending on problems and issues reported by residents' such as the effects of the Westfield Shopping Centre and the football grounds in the borough.

- **Flexible charging options**

The council has introduced the SMART Visitor Permit, which allows visitors of residents in some of the borough's CPZ's to park during controlled hours, regardless of the maximum stay for the area. It also provides a convenient cashless method of paying for parking as well as a cheaper alternative to the regular pay and display tariff. The permit includes a 50% discount for the first 240 hours a year for disabled resident's visitors.

The permit acts like an Oyster card where residents credit the balance (minimum top up of five hours at a time) and then use it as and when required. Using the SMART visitor permit, parking time is charged by the minute and deducted from the available credit.

The council is also currently operating electronic residents' parking permits in three Controlled Parking Zones (Zones K, L and R) on a trial basis. These permits also allow residents to use the permit for cashless pay and display parking in other zones in the borough.

- **Special parking spaces**

CASE STUDY 2 – MATCHDAY PARKING

Our relatively small borough has three football clubs and the challenge has been to respond flexibly to the requirements of residents and their visitors, while ensuring the continued vibrancy of commercial areas located close to the clubs.

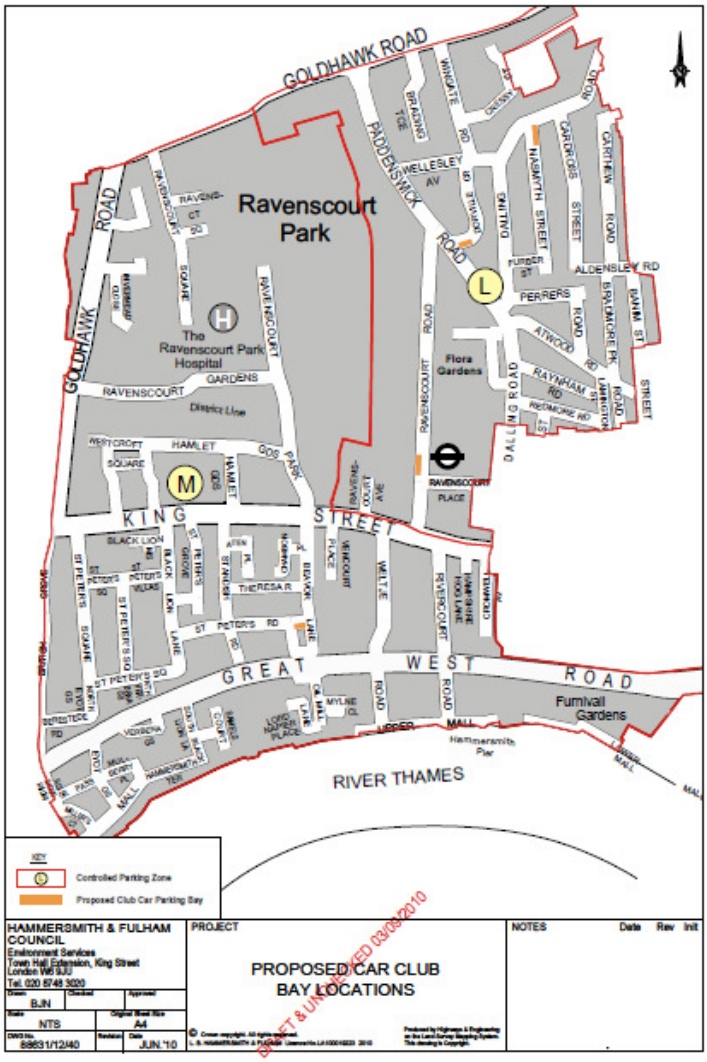
In December 2007 we successfully introduced a ground-breaking football matchday parking scheme to reduce the impact of visitor parking in the vicinity of Fulham Football Club. The scheme harnesses the very latest electronic sign and permit technologies to enable the scheme to be flexible in reacting robustly to any changes in football match fixtures.

Our research showed that football supporters were willing to walk considerable distances from their car to the ground which influenced the extent of the scheme. We installed a series of electronic signs at the CPZ boundary that were all linked by GPRS allowing us to change the days and times of operation of the CPZ to suit the fixture list. In addition the maximum pay and display time for non residents or their visitors was reduced to one hour and electronic smart residents permits were issued which could allow official visitors to pay for their parking electronically like an oyster card.

The scheme was a success with 80% less pay and display parking on matchdays, with no reduction in attendance for the club. We have had no reports that the system is misunderstood by motorists and no cases on disputed PCNs to date.

- **Car clubs and electric vehicles**

The Council is working in partnership with operators to ensure the appropriate number and location of parking spaces so car club networks can grow. The Council will also support activities to raise awareness of the availability, and advantages, of car clubs. The plan below shows the location of the first on street car club bays to be trialled in the borough



The council has secured £100,000 of funding from TfL for 11/12 and 12/13 to assist the further roll out of on street car club parking bays. This programme will be developed based on the results of the on street trail as above and co-ordinated with our integrated transport programme (most notably our neighbourhood's programme). We are aiming to implement 60 on street bays per year, which will be subject to detailed design, procurement matters, local support and political approval.

The Council has worked with partners to develop off street charging points for electric vehicles. A map and schedule of the charging points is shown on page 50. Because of the high levels of parking stress in the borough, there is no scope for the provision of on-street charging points in the borough. However, we will follow the London Plan guidelines of providing electric charging points at 20% of the parknig spaces in new developments in the borough. Depending on the scale, timing and rates of parking provision at developments in the borough's regeneration areas, we would expect some 1200 charging points to be provided within the lifetime of the plan.

- **Personalised blue badge bays**

We are part way through a trial to provide personalised residential personalised blue badge parking bays. The response we have had is encouraging and we shall seek to roll this out further across the borough along with a review of blue badge spaces and parking in our three twon centres..

3.10 Objective 7 – To reduce the number of people injured and killed on our streets.

Road safety has been and will continue to be one of the high priorities for the council, as was outlined in our first local implementation plan 2005 – 2009.

In 2009 there were 722 people injured on the roads of Hammersmith & Fulham. Of these 93 suffered serious injuries or were killed and 629 suffered slight injuries.

Road traffic accidents cost the borough, the tax payer and the NHS millions of pounds each year and the people injured and their families are those seriously affected.

We want to focus our limited and reduced resources on protecting the borough's many vulnerable road users which involves developing innovative and holistic solutions to a wide range of road safety issues.

Every year we form closer links with the Metropolitan Police, TfL and the Royal Borough of Kensington & Chelsea, working together to save lives on the borough's roads. It is only with our combined efforts that we can have a significant impact on the lives and wellbeing of people in the borough.

- **Safety on the Strategic Road Network**

In 2009 there were 637 accidents on the roads in Hammersmith & Fulham resulting in 722 casualties. Of these 55 accidents were on the TLRN resulting in 66 injuries.

We will continue to work with TfL on road safety initiatives and continue to lobby them for data led road safety engineering projects to be developed and delivered on the TLRN in the borough. The nature of the TLRN leads to higher speed accidents resulting in higher severity casualties. For us to meet our national and locally set casualty reduction targets we will rely heavily on TfL to continue to assess the road risk associated with their network and provide bespoke solutions to areas identified.

- **Casualty data review and site prioritisation**

A detailed annual examination of road traffic casualty data is carried out by officers. This seeks to both establish trends and types of casualties to then decide on road safety education initiatives to identify particular locations, routes or areas where casualty rates raise concerns. These concerns may warrant a

particular corridor or neighbourhood being given a high priority and included into the annual programme or suggest that a site could benefit from a separate intervention funded from the council's local transport fund.

For example, the Brook Green area was made into a 20 mph zone about five years ago. An examination of the pre and post casualty data revealed a 50% reduction in casualties. However the number of casualties occurring after implementation suggested more road safety measures could help reduce casualties further. Brook Green was therefore selected as a neighbourhood area in 2010/11.

- **Road Safety Engineering**

In a similar way to bus priority the concept of road safety engineering (formerly delivered under dedicated programmes, local safety schemes and 20mph zones) now forms a key element of our integrated transport programme supported by the casualty data review and site prioritisation work above. We have maintained the use of the first year rate of return as a value for money tool in these austere times.

The inaugural neighbourhoods and corridor schemes, mostly delivered in 2010/11 saw a considerable number of road safety engineering improvements to our road network. In Askew Road we installed a number of raised entry treatments which have been proven to reduce casualties and improve the walking environment for the mobility impaired as well as buggies and pushchairs. In Brook Green we re-engineered a key junction in one of first 20mph zones as a result of the casualty analysis and local representation.

We are well aware of the growing disquiet regarding traditional traffic calming (such as speed bumps and cushions) and we have responded to this using current and emerging legislation. Wendell Park neighbourhood will see the first 20mph limit in the borough supported by signage only, in a similar way to successful pilots in Portsmouth and Hull.

- **Free cycle training for adults**

A three year cycle training contract was signed in November 2010, with four elements including all ability adult cycle training. This is offered on one to one basis for complete beginners through to cyclists looking to build skills and confidence to negotiate the road network. These skills along with smarter travel measures, such as the ‘cycling and HGV awareness’ campaign; will play their part in developing skills and awareness to prevent accidents.

Cycle training also helps to reduce cycling on the footway, which causes concern to pedestrians particularly older and disabled people.

- **Free School cycle training**

The new three year cycle training contract also includes the majority of funding for school cycle training. These will take the form of group lessons and allow the pupils to potentially progress to Bikeability Level 2.

Priority for these group sessions will be given to schools with up-to-date school travel plans. Linking these two elements should offer double benefits: better skills for young cyclists, and a safer road environment around the schools – with less motorised traffic.

- **Smarter travel safety initiatives**

CASE STUDY 3 – CHANGING PLACES

Background

- Half of all cyclists killed in London involve collision with lorries, even though lorries make up just 5% of London traffic.
- Half of these fatalities happen as the lorry turns left at a junction, trapping the cyclist on the inside.
- H&F officers have launched a cycle/HGV safety initiative based on the successful and award-winning model developed in LB Lambeth.
- Cost of H&F campaign: £15,000
- Average value of prevention per single fatal casualty: £1.64 million

Cyclist education

- Cyclists visit a H&F lorry cab and talk to the driver, then spend 10-15 minutes with a cycling instructor who talks them through, with visual demonstrations, the issues of visibility and correct positioning, blind spots, mirrors
- Pilot event was held at Greenfest in Furnivall Gardens on 20th June
- Events since held on 7th and 16th September 3-6pm on Shepherd's Bush Green
- Further events planned at Parson's Green on 11th and 19th October, and continuing into 2011
- Professional quality photos available from Richard Evans, including of Jeremy Bowen (BBC TV News special correspondent) in and beside the lorry cab

Lorry Driver education

- Cycle training delivered to H&F lorry drivers at Bagley's Road depot
- The first eight lorry drivers took the cycle training day course on Wednesday 22nd September 2010
- All 70 Serco drivers working for H&F to be trained in coming months
- Day starts with a group classroom session in which drivers are encouraged to empathise with cyclists through discussion – a structured, interactive session led by an experienced urban cycle instructor. Drivers have the opportunity to discuss and question how cyclists use/should use the road, with a view to developing a deeper understanding of why they are on the course
- then drivers move outside into the yard to complete national standards training level 1 (off-road)
- then after lunch an introductory session to levels 2 and 3 (i.e. on-road cycle training)
- Fleet manager David Porter was on the first training course

Advertising

- large yellow TfL warning stickers are being affixed to all H&F lorries where possible
- advertising campaign in H&F News 'Never cycle on the inside of a lorry'

The smarter travel programme has been devised to work on a number of strands to reduce the number of people injured and killed on our roads. It improves the awareness of dangers, raises skills and encourages the use of sustainable modes to reduce the sources of danger.

The areas of activity range from working with schools through road safety education and school travel plans to the development of work place travel plans. There will also be specific road safety campaigns related to evidence-based accident data along with travel awareness campaigns promoting appropriate choices of travel.

In addition to our wide range of training we are more than happy to consider mobility training to ensure the blind and the visually and mobility impaired can take advantage of the many transport improvements and opportunities in the borough.

3.11 Programme of Investment

The tables on pages 64 to 67 set out our high level programme of investment for the period 2011/12 to 2013/14. The programme reflects the delivery actions identified in section 3.3, and is focussed on achieving our LIP objectives (and therefore the Mayors Goals for Transport in London) in a cost effective manner. The programme represents the borough's business plan for implementing the changes expressed through the LIP.

We have structured our programme of investment around packages of complementary measures and holistic interventions, in order to maximise the benefits of our investment. The programme has been developed through a multi-disciplinary working party consulting widely with internal and external stakeholders.

Tables 3.3 to 3.5 further illustrate the LIP objectives and MTS goals which each category of investment will contribute towards. Figure B.1 (Appendix B) shows how this investment will contribute to the delivery of each of our LIP objectives.

The programmes represented in this LIP are provisional only and detailed spending profiles will be confirmed in the annual spending submission to TfL. We will maintain some flexibility in our programme to be able to respond to delays and cost over-runs, consultation feedback, new evidence of the impact of previous similar interventions, availability of additional third-party funding and changes in priority.

Investment in actual work on the feasibility, design, consultation and implementation of schemes will also be confirmed as part of the annual budget setting process. However our programme management approach is based on the full three years of this LIP, recognising that it is not always feasible or efficient to fund, design and deliver a scheme in one year.

3.12 Investment proposals on the TLRN

Our programme of investment will be supported by the following proposed works on the TLRN, up to and including 2012/13:

- Improving the pedestrian crossing environment at the junction of Talgarth Road with Gliddon Road and Palliser Road

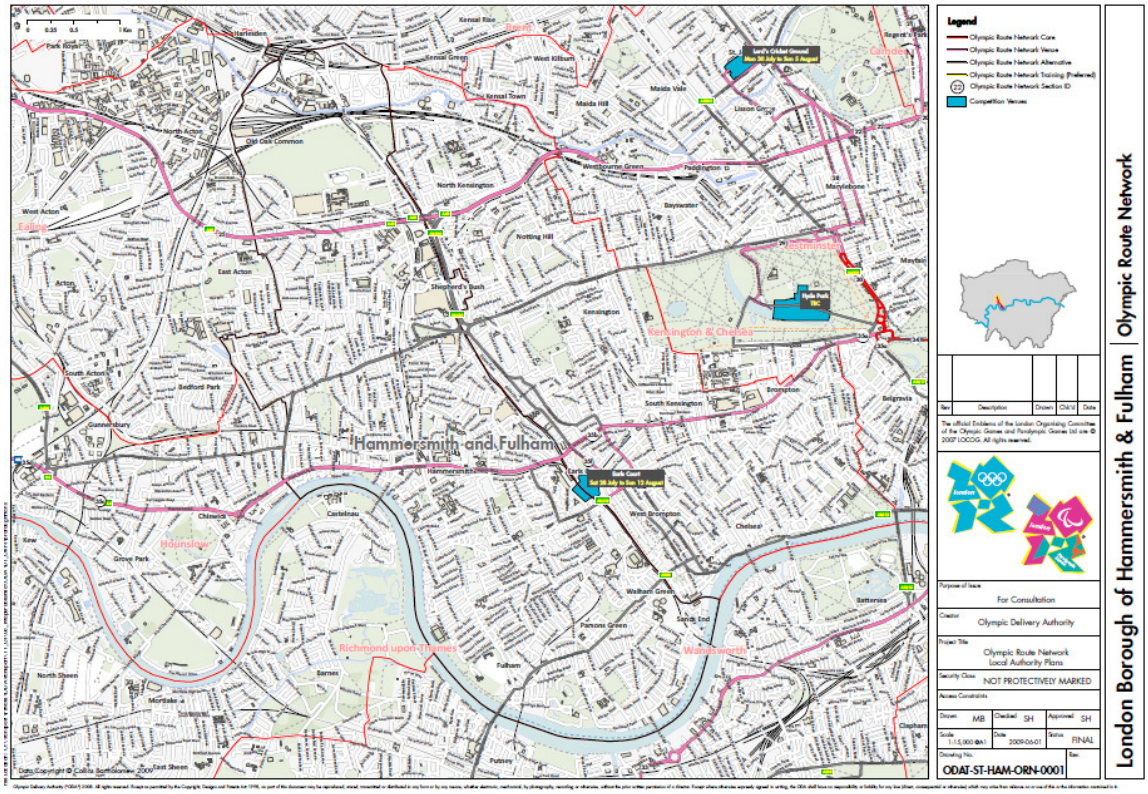
- Improving the pedestrian and cycling facilities along the A4 Talgarth Road

The following plan shows the various Olympic Route Networks (ORN) in the borough. Two roads are classified as on the Olympic Route Network Venue - Westway and Great West Road (both on the TLRN). In addition to these the following roads on the SRN form part of the alternative Olympic Route Network. They are:

- Goldhawk Road
- Shepherds Bush Green
- West Cross Route (TLRN)
- North End Road (part)
- Lillie Road (part)
- New Kings Road
- Putney Bridge

We shall work with TfL and the ODA to ensure that the approach taken to the ORN is suitable and the mitigation methods acceptable and well publicised to the travelling public.

In July 2010 Earls Court became the Olympic venue for volleyball and will host all matches at the 2012 games. We will work with TfL and the ODA to ensure the venue traffic management plan is robust yet flexible.



3.13 Timetable for delivery

The specific interventions set out in this delivery plan will be delivered by April 2014 unless they are ongoing measures such as those specified in our smarter travel programme. The interventions marked with an asterisk (*) are those considered to be ongoing for the foreseeable future.

The delivery plan will be refreshed every three years - the next time being April 2014.

To comply with the GLA Act 1999 (as amended) the LIP must contain a timetable for implementing each of the different proposed interventions and a date by which all such proposals will be implemented. Where it is possible to provide dates for individual interventions then we will set these out, as well as the date by which they will be implemented. Where this is not practicable we will consider following the approach in the example below, where one date by which they will all be implemented is given and those interventions which are on-going clearly indicated.

3.14 Developing the Programme of Investment (POI)

In developing the programme of investment, the cross-divisional working party has:

- Identified delivery actions (section 3.3) which address the delivery requirements for each of the MTS goals (section 2.3):

- Reviewed the strength of evidence (before and after analysis of previous local investment, published research and best practice, stakeholder feedback and professional expertise etc) and prioritised investment in programme areas where there is clear evidence to suggest that the intended outcomes will be delivered and will make a significant contribution to our LIP objectives. For example, figure 3.4 show that our road safety programme of work over the last ten years has delivered some significant benefits in terms of casualty reduction.

- Assessed whether or not there could be any negative impact associated with potential interventions, which need to be mitigated or else balanced against the benefits:

- Structured our programme around packages of complementary measures of holistic interventions, in order to maximise the benefits of our investment – with a specific emphasis on growth and employment areas and more deprived neighbourhoods where there is evidence of a need to address safety issues:

- Ensured walking and cycling improvements are incorporated into all packages, where appropriate, recognising the important role these can play in meeting many of our LIP objectives:

- Reviewed our historic patterns of spend against our intended outcomes for the second LIP period and identified:

a. What additional schemes would be implemented if additional resources were available and what the benefits would be;

b. What tradeoffs would need to be made if lower levels of investment were available. The POI tables on pages 61 to 65 are prioritised against future potential funding restructures and decreases. This process has been undertaken through the working party involving key transport delivery officers, the results of the first two rounds of consultation and reported to the lead member for environment.

- Considered the scale of change in travel behaviour and transport outcomes required to deliver our LIP targets, set out in Chapter 4.

The programme of investment for 2011/12 to 2013/14 is shown on pages 61 to 64. This shall be updated every three years.

3.15 Major Schemes

Our programme of investment includes two proposed major schemes for which we are seeking a funding contribution from TfL; Fulham Palace Road slip road (paragraph 3.15 below) and Goldhawk Road (paragraph 3.6).

The Goldhawk Road Major Project entry in the programme are only aspirational at this stage and although, in principle, TfL are supportive of the initial scheme objectives they have not confirmed the funding needed for implementation.

- Fulham Palace Road

The case study below reports the history and details of this major project. We have recently secured £2.76 million to fund the construction of this project from TfL. The funding is in the form of a section 159 agreement rather than major projects funding but the principle of the scheme is that of a major project.

Detailed design is well underway and it is anticipated that consultation will be carried out in May 2011. Construction is likely to follow subject to local support and political approval in July 2011 and to continue for eight months with completion in February 2012.

- Goldhawk Road

The case study at paragraph 3.6 on page 35 reports the history and details of the Goldhawk Road major project. In 2009 we were unsuccessful at stage one of our major project funding application and it was this that encouraged us to commission the visioning study that forms the basis of this major project.

The visioning study was carried out using 10/11 integrated transport funding and we have allocated funding in 11/12 to carry out detailed design, start the engagement process with key stakeholders, and deliver some quick wins and to complete and submit a second submission for major projects funding.

We have anticipated that £3 million of major project funding is required, profiled over 12/12 and 13/14 which will be topped up with £2 million of developer funding. Given the regeneration in the area, with the White City Opportunity Area (and other development sites), we are confident that this funding is achievable over the project timescales.

Construction is indicatively planned for after the London 2012 Olympics, as Goldhawk Road is part of the Olympic Road Network, and to be completed by 2013/14.

- Future major projects

Fulham palace Road and Goldhawk Road are the only two major projects identified in the programme of investment period, up to 2013/14. We anticipate that during the life of this plan (to 2031) additional major projects will be devised and submitted for funding through the three yearly programme of investment.

Major scheme proposal 1 – Fulham Palace Road

Fulham Palace Road (A219) is a key north-south route which forms part of the Strategic Highway Network. There are significant traffic queues currently along the whole road, particularly during the peak periods, which extends along its whole length from Hammersmith Gyratory to Putney Bridge in the south.

Prior to the implementation of the congestion charging extension in February 2007, members and officers met with TfL to discuss the likely effect on the borough's roads. In particular, increased congestion on the Borough's already congested north south corridors was considered critical.

The extension of the congestion charging area has had an impact upon Hammersmith & Fulham, as the Western Extension
Zone (WEZ) boundary lies directly along the borough boundary in this area. As a result of these changes Putney Bridge leads traffic directly onto the New Kings Road and the A3212 rerouting traffic to avoid the charging area. Fulham Palace Road runs north-south parallel to the charge boundary and therefore has attracted traffic wishing to avoid the charge area.

The TfL congestion charge director advised that to get a review of Fulham Palace Road, the borough should seek funding through individual TfL programme managers. Bus priority was thought the most likely source of funding as the Route 220 (Wandsworth to Willesden) service was due for review through Third Generation Bus Priority Programme (3GBP) funding.

TfL agreed to fund the initial appointment of consultants to undertake a feasibility study of potential capacity improvements along Fulham Palace Road. From the consultant's initial investigations, traffic modelling and peak hour traffic observations on site, a number of sites were identified as problematic along Fulham Palace Road.

The council decided that the Fulham Palace Road slip road proposal/ carriageway reconfiguration was identified as the priority scheme because it seemed to deliver the most benefits.

However, due to the sensitive location of the proposal as well as the predicted high costs of the scheme (estimated at £1.5m at the time), VISSIM modelling of the gyratory including all the approach roads (the recognised software for testing traffic schemes in congested traffic areas), was required for TfL to assess the effect on the gyratory as well as the development of a full business case for funding by TfL.

In order to test the impact of the proposed improvement measures, specialist consultants, together with Transport for London and H&F officers have developed two traffic models using VISSIM. These models cover not only Hammersmith Gyratory and its approaches, but also Hammersmith Bridge Road and the nearby Castelnau / Lonsdale Road junction in the London Borough of Richmond.

The first traffic model prepared was the base and is largely complete - it represents the existing traffic conditions during the peak daytime periods. The second models the improvement measures and is also nearing completion. Recent results show significant benefits are being achieved in comparison to the existing situation, in terms of reduced journey times for buses and general traffic in the area.

Programme areas		Funding source	Funding (£,000s)				MTS goals					Expected main MTS outcomes	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		
Neighbourhoods and Corridors	**Du Cane Rd Safety Improvements** - To review & improve traffic calming features that inhibit traffic flow & encourage a smoother progression for all road users i.e. for bus/cycle movements as well as the increase in pedestrian activity due to the increased development of the hospital site. Completion and review of 2010/11 works.	LIP allocation	25	0	0	25	✓	✓	✓	✓	✓	2,3,4,5,7,10,12,13,14,16 ,17,18,20,21,22,23,24,	2, 3, 4, 5, 7
	Askew Road Package - Completion of 2010/11 projects (raised entries, loading/shop and bus stop bays & Askew Rd/Uxbridge Rd signalised jctn Imp.). To develop how the extensive road space can be best used to stimulate regeneration & inclusivity e.g. improve public realm using better streets principles. Askew Rd is a key north-south route as well as a busy bus corridor and a local shopping area.	LIP allocation	30	0	0	30	✓	✓	✓	✓	✓	2,3,7,10,12,13,14,16,18, 20,21	2, 3, 4, 5, 7
	Wendell Park Neighbourhood Improvements - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements. Completion and review of 2010/11 works.	LIP allocation	20	0	0	20	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23, 24	3, 4, 5, 7
	Brook Green Neighbourhood Improvements - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements. Completion and review of 2010/11 works.	LIP allocation	25	0	0	25	□	✓	✓	✓	✓	4,7,10,12,13,14,15,16,1 8,20,23,24	3, 4, 5, 7
	Ravenscourt Park Neighbourhood Improvements - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements. Completion and review of 2010/11 works.	LIP allocation	40	0	0	40	□	✓	✓	✓	✓	4,7,10,12,13,14,16,18,	3, 4, 5, 7

	South Park Neighbourhood Improvements - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements. Completion and review of 2010/11 works.	LIP allocation	35	0	0	35		✓	✓	✓	✓	4,7,10,12,13,14,15,16,18,20	3, 4, 5, 7
	Wayfinding - Pedestrian signing improvements delivered through Wayfinding Legible London direction signs system for Town Centres. Completion of programme for Hammersmith and Fulham	LIP allocation	135	0	0	135	✓	✓	✓	✓	✓	2,10,12,16,21	3, 4, 5
	Fulham Palace Road Package - To develop the Route 220 3G package of measures along this important north-south corridor and how the extensive road space can be best used to stimulate regeneration & inclusivity e.g. improve public realm using better streets principals. Package includes a range of measures to smooth traffic through this busy congested route, incl. upgrading pelican crossings to puffins, raised entry treatments, waiting & loading improvements & kerb realignments	LIP allocation	540	613	140	1,293	✓	✓	✓	✓	✓	2,3,4,5,6,7,9,1012,13,14,15,16,18,20,21,22,23,24	2, 3, 4, 5, 7.
	Accident Investigation - To review annual casualty data to identify priority areas & produce annual monitoring reports towards LIP2 and emerging national casualty targets	LIP allocation	40	40	38	118	✓	✓	✓	✓		18	7
	Wormholt Neighbourhood Improvements - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	140	20	0	160		✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3,4,5,6,7
	Dawes Road Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	165	20	0	185		✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3,4,5,6,7
	Parson's Green Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	171	20	0	191		✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3,4,5,6,7
	Moore Park Road Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	100	10	0	110		✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.

	Riverwalk - Riverwalk Enhancements/Improvements Programmed from Upper Mall to Bishops Park/Putney Bridge	LIP allocation	120	90	85	295	□	✓	✓	✓	✓	7,8,10,12,13,16	3, 4, 5.
	Goldhawk Road Package - From commissioned multi modal transport study to develop how the extensive road space can be best used to stimulate regeneration & inclusivity e.g. improve public realm using better streets principals	LIP allocation	115	170	800	1,085	✓	✓	✓	✓	✓	1,2,3,4,5,6,7,9,10,12,13,14,15,16,18,20,21,22,23,24	2, 3, 4, 5, 7.
	Neighbourhood schemes - Initial consultation and survey work for 2012/13 schemes	LIP allocation	40	0	0	40	□	✓	✓	✓	✓	none	3, 4, 5, 7.
	Scrubs Lane - accident reduction, public realm improvements, and pedestrian improvements.	LIP allocation	90	70			✓	✓	✓	✓	✓	2,3,7,10,12,13,14,16,18,20,21	2, 3, 4, 5, 7.
	Uxbridge Road - accident reduction, public realm improvements, pedestrian improvements.	LIP allocation		70	90		✓	✓	✓	✓	✓	2,3,7,10,12,13,14,16,18,20,21	2, 3, 4, 5, 7.
	Du Cane Road Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	150	17	167	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.
	Riverside Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	190	18	208	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.
	Fulham Palace Road (East) Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	190	18	208	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.
	Charing Cross Hospital Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	180	17	197	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.
	St. Mary's Cemetery Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	0	120	120	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.
	Hammersmith Grove Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	0	130	130	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23,24	3, 4, 5, 7.

	Sulgrave Road Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	0	130	130	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23, 24	3, 4, 5, 7.
	White City Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	0	90	90	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23, 24	3, 4, 5, 7.
	Cathnor Park Neighbourhood - Encourage more walking through legibility, permeability, and accessibility improvements. Public realm and environmental improvements.	LIP allocation	0	0	140	140	□	✓	✓	✓	✓	7,10,12,13,15,16,18,23, 24	3, 4, 5, 7.
	Cycle Training - facilitate cycling skills and build confidence through cycle training for children, adults and all-ability cyclists.	**LIP allocation**	60	60	60	180	□	✓	✓	✓	✓	1,4,5,10,14,18,19,23,24	3, 4, 5, 7
Smarter Travel	**Children's education, training and publicity -** a range of activities targeted at children including:- Moving on, Roadwise Rangers, Junior Citizens, School Travel Plans, School grants, Child pedestrian training, Walk on Wednesdays and Walk to School Week.	**LIP allocation**	175	175	175	525	□	✓	✓	✓	✓	1,4,5,10,14,18,19,23,24	3, 4, 5, 7
	Cycling awareness campaigns - concentrating on the continuing Cycling and HGV awareness programme.	**LIP allocation**	15	15	15	45	□	✓	✓	✓	✓	1,4,5,10,14,18,19,23,24	3, 4, 5, 7
	General Campaigns - a range of education, training and publicity including:- drink/drug driving awareness, in car safety, theatre in education, Powered 2 wheelers, and Road safety linked to health improvements.	**LIP allocation**	45	45	45	135	□	✓	✓	✓	✓	1,4,5,10,14,18,19,23,24	3, 4, 5, 7
	Travel awareness - promoting sustainable travel through Workplace Travel Plan development and Travel awareness promotion.	**LIP allocation**	36	36	36	108	✓	✓	✓	✓	✓	1,4,5,10,14,18,19,23,24	2, 3, 4.5, 7
												1,4,5,10,14,18,19,23,24	
Integrated transport total			**2,162**	**2,164**	**2,164**	**6,490**							
Maintenance	**Scheme 1 - Goldhawk Rd**	**LIP allocation**	245			245	✓	✓	✓	✓	✓	4,5,6,7,10,12,15,20,21,2 3,24	2,3,4,5,7
	Scheme 2 - Dawes Road	**LIP allocation**	119			119							
	Scheme 3 - Hammersmith Road 1	**LIP allocation**	91			91							
	Scheme 4 - Hammersmith Road 2	**LIP allocation**		114		114							
	Scheme 5 - Glenthorne Road	**LIP allocation**		105		105							
	Scheme 6 - Lillie Road 1	**LIP allocation**		125		125							
	Scheme 7 - Lillie Road 2	**LIP allocation**		240		240							

	Scheme 8 - New King's Road	**LIP allocation**		210		210							
	Bridge assessment and strengthening - Hammersmith Bridge	**LOBEG**	500	350			□	□	□	□	□	4,5,6,7,10,12,15,20,21,23,24	
	Bridge assessment and strengthening - North End Road Bridge	**LOBEG**	275				□	□	□	□	□		
	Bridge assessment and strengthening - Lillie Road Bridge	**LOBEG**	275				□	□	□	□	□		
	Bridge assessment and strengthening - Scrubs Lane Bridge	**LOBEG**	1,000	500		1,500	□	□	□	□	□		
	AIMS	**LIP allocation**	220			220	□	□	□	□	□		
	Road 2000	**LIP allocation**	871			871	□	□	□	□	□		
							□	□	□	□	□		
Maintenance total			**3,596**	**1,644**	**0**	**3,840**							
Major Schemes	**Fulham Palace Road Slip Road** - To develop how the extensive road space can be best used to stimulate regeneration & inclusivity e.g. improve public realm using better streets principals. Fulham Palace Rd is a key north-south route as well as a busy bus corridor	TfL Business Plan	2,300			2,300	✓	✓	✓	✓	✓	1,2,3,4,5,6,7,9,10,12,13,14,15,16,18,20,21,22,23,24	1,2,3,4,5,6,7
	Goldhawk Road Package - From commissioned multi modal transport study to develop how the extensive road space can be best used to stimulate regeneration & inclusivity e.g. improve public realm using better streets principals	**LIP allocation**		1,000	2,000	3,000	✓	✓	✓	✓	✓	1,2,3,4,5,6,7,9,10,12,13,14,15,16,18,20,21,22,23,24	1,2,3,4,5,6,7
Major Scheme total			**2,300**	**1,000**	**2,000**	**5,300**							

3.16 Risk Management

Every programme and individual scheme, regardless of size, will have risks and issues associated with actually doing the work. For this, a robust LIP, it is vital that all risks are recognised and managed to minimise problems and maximise the chances of success.

We consider effective risk management to be an established, but vital, process and an essential ingredient of a good LIP programme and scheme management. A structured methodology has therefore been developed to identify, assess, mitigate and manage potential risks throughout the lifecycle of the LIP programme.

The methodology is based on three key stages:

- The identification of risks, opportunities and uncertainties at both scheme and programme level

- Risk quantification and analysis for decision support

- Ongoing reporting and review.

The primary objective of this methodology is to assist the scheme and programme teams to focus their skills on the areas of uncertainty, thus reducing or avoiding the impacts of risk and allowing them to exploit opportunities for cost saving.

- **Individual scheme and policy risks**

Risk is managed on an individual scheme basis through our BSI registered quality management system (QMS), with the level of information recorded on the scheme quality plan proportionate to the size and complexity of the risk and mitigation.

Within the QMS is an established and bespoke road safety audit protocol which is applied to every project that seeks to amend the layout of the road network. It was developed using the principles of statutory requirements for road safety audit for the trunk road network and regional guidance from TfL. By carrying out this protocol we can ensure that all our highway improvement projects seek to improve road safety in line with our national and local casualty reduction targets.

A departmental risk register is prepared and updated annually as part of our business planning process and identifies any other business risk that may affect scheme delivery.

- **Programme level risks**

The table below identifies a range of common risks and mitigation measures relating to the delivery of the overall LIP programme, and the achievement of outcomes.

As part of our risk assessment process, programme delivery is monitored at monthly meetings with all programme managers and senior management in the highways and transport division. This is in order to identify and resolve any problems as soon as they occur. If it becomes apparent that there are significant risks to timescales and/or costs, it is possible to re-prioritise design work so that abortive costs are minimised.

programme risks and mitigation measures

Risk	**Mitigation measure(s)**
Cost increase/budget reduction	all designs developed to be flexible to allow amendments to reflect budget reduction whilst still maintaining principles of LIP objectives
Delay to schemes	LIP funding to be allocated in consecutive years to allow more involved projects to be run over 18 months rather than the traditional 12 months
Lack of Stakeholder support	develop designs that meet our LIP objectives that can be justified and presented to stakeholders in a suitable manner
Policy compatibility	to develop a bespoke policy compliance tool* that all potential projects will be assessed against
Lack of resources to deliver	to maintain our working relationships with the RB Kensington & Chelsea and framework consultants to ensure resources are in place to deliver LIP objectives.

*** Bespoke policy compliance tool**

Given the change in nature of project input a matrix based tool has been developed to ensure that design proposals are meeting the boroughs transport objectives and also the Mayors goals and high level outputs. The tool is based on the councils EIA screening matrix (and SEA screening matrix) and lists the objectives (and goals) and asesses the impact of scheme designs on each one as positive, negative or neutral.

This matrix is presented to the lead member as part of the poitical approval process for Lip funded schemes and allows a considered political decision and to understand and resolve any conflicts.

4. PERFORMANCE MONITORING PLAN

4.1 Introduction

In order to monitor delivery of our LIP objectives and intended outcomes we have identified a number of targets and indicators. These include:

- **Mandatory/Core Targets** – locally specific targets that are required by TfL which will be used to assess delivery of the MTS outcomes at a borough level

- **Local Targets** – additional targets for local performance indicators, covering local priorities for transport in Hammersmith & Fulham.

- **Other Indicators** – These include Local Area Agreement (LAA) targets, national indicators and other methods to help us track our performance including the LDF core strategy monitoring process.

A full list of targets and indicators by MTS goal and LIP objective is provided in Table 4.1. The causal chain diagram shown in figure 4.1 identifies a clear link between our LIP objectives, the proposed programme of investment and the targets identified in Table 4.1.

Further target information including base year and baseline data, target year and target outcome, and the anticipated target trajectory is summarised at the end of this chapter.

4.2 Target setting

The following section shows how we have developed our targets, and how we will ensure delivery of outcomes. In particular it identifies:

- Evidence to demonstrate that the target is both ambitious and realistic, given indicative funding levels

- Key actions needed to achieve the target, including what schemes and policies need to be implemented and the role of local partners

- Principle risks to the achievement of the target and how these will be managed.

Table 4.1 – Targets and indicators for monitoring delivery of LIP outcomes

Category	Target/Indicator	LIP objective
MTS1 – Economic Development and Population Growth		
Core target 2	**Bus service reliability**	**1,2,4,5**
Core target 3	**Asset condition**	**2,3,5,7**
MTS2 – Quality of life		
MTS3 – Safety and Security		
Core target 4a and 4b	**Road traffic casualties**	**7**
MTS4 – Opportunities for All		
MTS5 – climate change		
Core target 1a and 1b	**Mode share**	**2,4,5,7**
Core target 5	**CO_2 emissions**	**4**
Local target 1	**School run**	**2,4,5,7**

4.3 Progress monitoring and the Mayors High Priority Outputs

It is proposed that following every financial year a report is prepared for the Cabinet Member for Environment (and Deputy Leader) detailing progress towards the council's adopted LIP2 targets. A similar, well thought of and received, method was used between 2000 and 2010 to report on the progress towards the 2010 casualty targets.

This paper will, in addition review the previous years programme of investment including the smarter travel initiatives. As part of our review proposals we intend to issue post consultation questionnaires to one scheme from each project area (neighbourhoods, corridors and major schemes). In 2010/11 these are; Brook Green, Goldhawk Road and Ravenscourt Park station access.

This paper will form the basis of mandatory annual submissions to TfL covering al set targets as well as progress towards the Mayors High Priority Outputs, as below;

- Cycle Superhighway schemes
- Cycle parking
- Electric Vehicle charging points
- Better Streets
- Cleaner local authority fleets
- Street Trees

4.4 Mandatory/Core Targets

As part of the performance management plan we need to set out and agree with TfL the five LIP performance indicators below;

Indicator 1 – Transport modal share
- Target 1a – Walking modal share
- Target 1b – Cycling modal share

Indicator 2 – Bus Service Reliability
- Target 2 – Excess waiting time (EWT) for high frequency services

Indicator 3 – Asset Condition
- Target 3 – Principal road network condition

Indicator 4 – Road traffic casualties
- Target 4a – Killed and serious injuries (KSI)
- Target 4b – Total casualties

Indicator 5 – CO_2 emissions
- Target 5 – Kilotonnes of CO_2 from ground-based transport

LIP2 concentrates on the three year period 2011/12 to 2013/14, and as such we need to set out an interim target for 2013/14 (or in some cases 2013, depending on what basis the data is reported). However as the MTS2 reflects the longer period up to 2031, we have also set out indicative longer-term targets.

We have established our draft mandatory targets, as below, in line with the May 2010 TfL LIP2 guidance and the July 2010 supplementary guidance document 'Setting targets for second round LIPs'. The guidelines set the definitions of the target, baseline, milestone and trajectory for each indicator.

The table on page 61 summarises our proposed targets. It shows a worsening performance against one target, the maintenance of the existing situation against another target and an improvement against the remaining five mandatory targets. In the following tables, for each target, we have shown a number of actions that would support our achievement of that target for both the council and other stakeholders. These actions are based on current practices and policies and we will need to refine this list following the consultation of the LIP2 and in light of the results of the October 2010 comprehensive spending review.

Target no.	LIP2 objective	Indicator	Baseline	Short-term (interim target)	Long-term target (indicative)
1a.	1,2,4	**Walking mode share** % of residents trips by main mode	36.9%	37.5% (2013/14)	40% (2030/31)
1b.	1,2,4	**Cycling mode share** % of residents trips by main mode	3.9%	4.5% (2013/14)	8%(2030/31)
2.	2	**Bus service reliability** average excess wait time for high frequency services (mins)	1.2	1.2 (2013/14)	1.2 (2017/18)
3.	2,3,5	**Asset condition** % of the Borough Principal Road Network with a UKPMS score greater than 70.	8.4%	8.4% (2013/14)	10% (2017/18)
4a.	7	**Road casualties** Number of KSI (3 year rolling average)	110	99 (2013)	51 (2030)
4b.	7	**Road casualties** Number of all casualties per billion vehicle kilometres (3 year rolling average)	1195	1074 (2013)	558 (2030)
5.	2,3,4	**CO^2 emissions** Kilotonnes (kt) emanating from ground-based transport per year	155	130 (2013)	85 (2025)

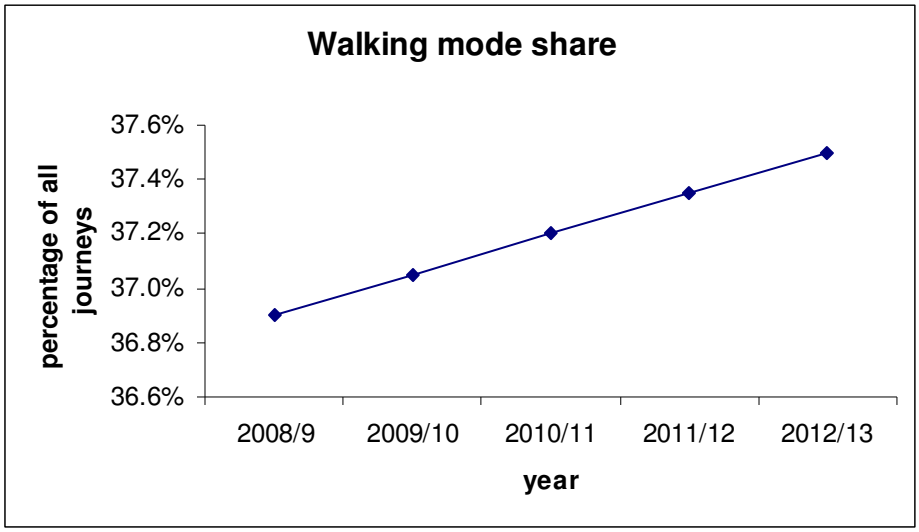
Target 1a - Walking mode share – To increase the percentage of trips made on foot originating in the London Borough of Hammersmith & Fulham from 37% in 2006/7 to 2008/9 to 37.5% by 2013/14

Rationale	Monitoring the proportion of personal trips by mode of travel gives a broad indication of the general travel behaviour of individuals in the borough.
Definition	Percentage of personal walking trips originating in the borough by London residents (main mode only)
Evidence	1. The baseline of 36.9% is within the top quartile in London. The borough is relatively small and well suited to walking 2. Many schemes have been delivered over the last five to ten years to improve the pedestrian environment in the borough, including flagship urban realm schemes in all three of the town centres 3. The target should be read alongside the cycling target as these modes are interlinked 4. The trajectory is flat based on our proposed programme of investment to 2013/14, including the wayfinding signage system across all three town centres 5. We do not consider that the removal of the WEZ will display an impact in the walking modal share
Data Source	London Travel Demand Survey (LTDS)
Base	**2006/7 – 2008/9 three year average – 36.9%**
Interim Target	**2013/14 – 37.5% (0.6% modal increase)**
Long term target	**2030/31 – 40% (3% modal increase)**
Key Actions - council	1. Continue to encourage walking through the smarter travel programme 2. Continue to deliver pedestrian training in schools 3. Continue to deliver a rolling programme of streetscene improvements through the corridors and neighbourhoods programme 4. Continue to maintain our footways to a high standard 5. To continue to declutter the pedestrian environment
Key Actions – others	1. TfL – to carry out maintenance and improvements to the pedestrian environment on the TLRN 2. TfL – to continue to review traffic signal timings 2. Police – to continue to carry out enforcement and education initiatives with the council 3. NHS– to continue to work with the council to educate residents about the health benefits of walking 4. Business community – to continue to develop travel plans
Risks	1. Reduced funding for smarter travel initiatives 2. Reduced funding for capital investment in the road network

Milestones

Base	2010/11 2008/9 – 2010/11	2011/12 2009/10 – 2011/12	2012/13 2010/11 – 2012/13	2013/14 2011/12 – 2013/14
36.9%	**37.1%**	**37.2%**	**37.4%**	**37.5%**

Trajectory



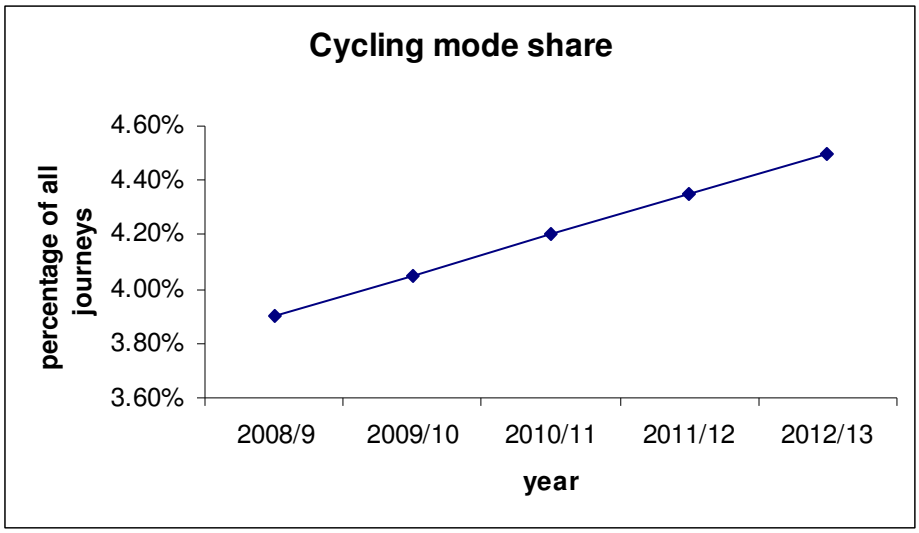
Target 1b – Cycling mode share – To increase the percentage of trips made by bike originating in the London Borough of Hammersmith & Fulham from 4% in 2006/7 to 2008/9 to 4.5% by the end of 2013/14

Rationale	Monitoring the proportion of personal trips by mode of travel gives a broad indication of the general travel behaviour of individuals in the borough.
Definition	Percentage of personal cycling trips originating in the borough by London residents (main mode only)
Evidence	1. The baseline of 3.9% is within the top quartile in London. The borough is relatively small and well suited to cycling 2. Many schemes have been delivered over the last five to ten years to improve the number of people cycling in the borough 3. The target should be read along side the walking target as these modes are interlinked 4. The trajectory is flat based on our proposed programme of investment up to 2013/14 5. We do not consider that the removal of the WEZ will have an impact on the cycling modal share
Data Source	London Travel Demand Survey (LTDS)
Base	**2006/7 – 2008/9 three year average – 3.9%**
Interim Target	**2013/14 – 4.5% (0.6% modal increase)**
Long term target	**2030/31 – 8% (3% modal increase)**
Key Actions - council	1. To continue to deliver free or subsidised cycle training to schools in the borough and to adults who live, work or study in the borough 2. To continue to deliver a range of initiatives through the smarter travel programme to encourage cycling 3. To ensure the needs of cyclists are taken into account when developing and delivering highway improvements schemes 4. To continue to ensure that our road surface is in a good condition
Key Actions – others	1. TfL – to deliver the cycle superhighways 9 and 10 in line with borough design aspirations. To extend the Mayors cycle hire scheme to the borough starting with a spur to the White City Opportunity area. 2. Police – to continue to carry out enforcement and education initiatives with the council 3. NHS – to continue to work with the council to educate residents about the health benefits of cycling
Risks	1. Reduced funding for smarter travel initiatives 2. Reduced funding for capital investment in the road network

Milestones

Base	2010/11 2008/9 – 2010/11	2011/12 2009/10 – 2011/12	2012/13 2010/11 – 2012/13	2013/14 2011/12 – 2013/14
3.9%	**4.1%**	**4.2%**	**4.4%**	**4.5%**

Trajectory



Target 2 - Bus service reliability – To maintain the average Excess Wait Time (EWT) at 1.2 minutes in 2009/10 to 2013/14

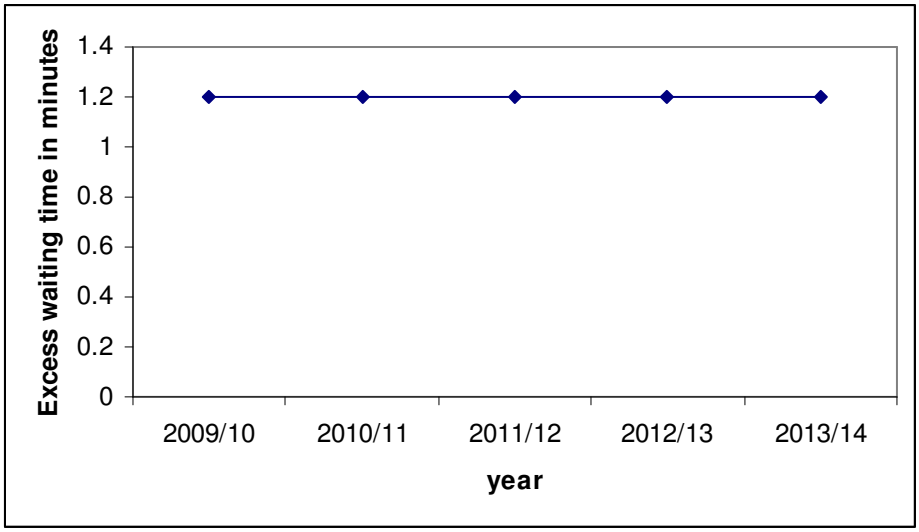
Rationale	This target reflects the Mayor of London's priority of improving public transport reliability. Boroughs have a limited role in improving bus service reliability but they can contribute, particularly in terms of managing their road network and providing measures to assist the movement of buses and the access of both buses and passengers to bus stops.
Definition	Excess Waiting Time (EWT) is waiting time by passengers over and above what might be expected of a service that is always on time, for all high frequency services (defined as those services with a scheduled frequency of more than five buses per hour) in the borough.
Evidence	1. Our baseline figure of 1.2 minutes is almost the same as the London average, which is 1.13. We are at the mid-point in the 'league table' of boroughs, with 16 boroughs having longer wait times and 16 having shorter wait times. Of the 12 inner London boroughs, H&F has the second lowest EWT. 2. Our Corridors schemes should help to improve bus reliability. In particular, our scheme to improve traffic flow at the Fulham Palace Road/Hammersmith gyratory junction should help to reduce EWT on this very important north-south corridor. The removal of WEZ should also reduce traffic on north-south routes in the borough, although this may be counter-balanced by an increase on east-west routes. 3. A high level of background traffic growth is predicted in the longer term as a result of employment and population growth, which in Hammersmith & Fulham will be concentrated at a small number of major development sites such as the White City Opportunity Area and Earls Court/West Kensington. Transport strategies are currently being developed for these sites which will identify improvement and mitigation measures. 4. Overall we do not see any reason why EWT in the borough should develop in a different way from that in London as a whole
Data Source	TfL Quality of Service Indicators (QSI)/ibus data.
Base	Average EWT 2009/10 – 1.2 minutes
Interim Target	2013/14 – Average EWT 1.2 minutes
Long term target	2017/18 – Average EWT 1.2 minutes
Key Actions - council	1. Continue to carry out our network management duty and work with utility companies to minimise, expedite and co-ordinate street works. 2. Improve access to bus stops by reviewing waiting and loading restrictions and bus stop layouts as part of corridor schemes 3. Continue to work with bus operators and London buses to identify local problem areas and target them for improvements as part of corridors schemes. 4. Continue to enforce waiting and loading restrictions on bus routes 5. Implement Fulham Palace Road/Hammersmith gyratory improvement scheme (Major scheme).

Key Actions –others	1 Bus operators and London Buses – work to improve bus scheduling and bus driver behaviour 2. Other borough councils – implement measures to improve/maintain bus service reliability for routes which serve both their boroughs and LHBF. 3 TfL - maintain the TLRN to a high standard; work with the Council and utility companies to minimise, expedite and co-ordinate street works and enforce waiting and loading restrictions on TLRN bus routes effectively. 4. Utility companies – work with TfL, the Council and other borough councils as above 5. Police – carry out effective enforcement.
Risks	1. Reduced funding 2. General increases in traffic levels outweigh positive effects of actions outlined above

Milestones

Base 2009/10 value	**2010/11** 2010/11 value	**2011/12** 2011/12 value	**2012/13** 2012/13 value	**2013/14** 2013/14 value
1.2	1.2	1.2	1.2	1.2

Trajectory:



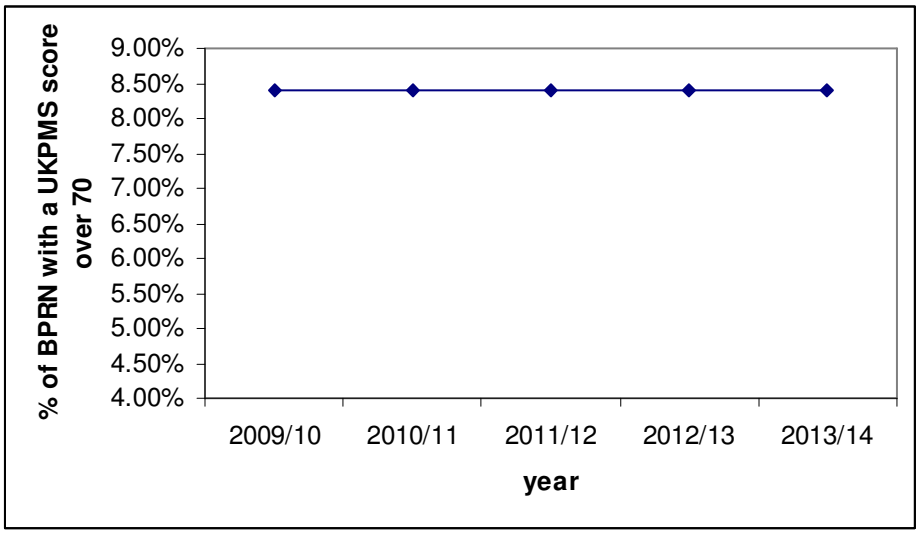
Target 3 - Asset condition

Rationale	Road condition - percentage of the Borough Principal Road Network (BPRN) with a UKPMS score greater than 70.
Definition	The condition of the BPRN is measured using an overall condition index (CI) produced by the UKPMS, calculated from detailed visual inspection (DVI) data.
Evidence	1. The Hammersmith & Fulham BPRN is approximately 71.5 lane km in length. If we assume the average lane width is 3.5m (conservative), then the network is approximately 250,000m^2. Based in historical trends and rates of deterioration we estimate that we need to resurface the BPRN every 10 to 15 years. As a guide therefore approximately 16,500m^2 should be treated every year to meet this target 2. Our current funding of £350,000 per year is sufficient to resurface approximately 10,000m^2 per annum (resurfacing rate of £35/m^2). Therefore if the current level of funding is kept consistent then there will be a shortfall of 6,500m^2 on the BPRN. 6,500 m^2 represents around 3% of the network deteriorated that we are unable to treat. 3. This will lead to a deterioration of the condition of the network with an increase in the percentage of the overall condition index being greater than 70. 4. This can be seen by the increase in the CI over 70 increasing from 6.0% in 2008/09 to 9.6% in 2009/10. This trend is likely to continue
Data Source	Road2000 BPRN condition surveys - DVI
Base	2009/10 = 8.4% greater than 70
Interim Target	2013/14 = 8.4% greater than 70
Long term target	2017/18 = 10% greater than 70
Key Actions - council	Continue to prioritise resurfacing schemes on the BPRN using the condition data.
Key Actions –others	
Risks	1. There is a clear risk that with the current level of funding that the condition of the councils BPRN will deteriorate rather than improve although it is acknowledged that other funding streams may be used for resurfacing in conjunction with other schemes, hence our indicative long term target setting of 10%. 2. Other risks include further severe winter weather events, such as those over the past two years. These have probably led to accelerated deterioration of the network.

Milestones

Base 2009/10 value	**2010/11** 2010/11 value	**2011/12** 2011/12 value	**2012/13** 2012/13 value	**2013/14** 2013/14 value
8.4%	8.4%	8.4%	8.4%	8.4%

Trajectory



Target 4a – Road casualties – Reduce the number of people killed and seriously injured (KSI) on all roads within the London Borough of Hammersmith and Fulham by 10 per cent by 2013, compared with the 2006 - 2008 average

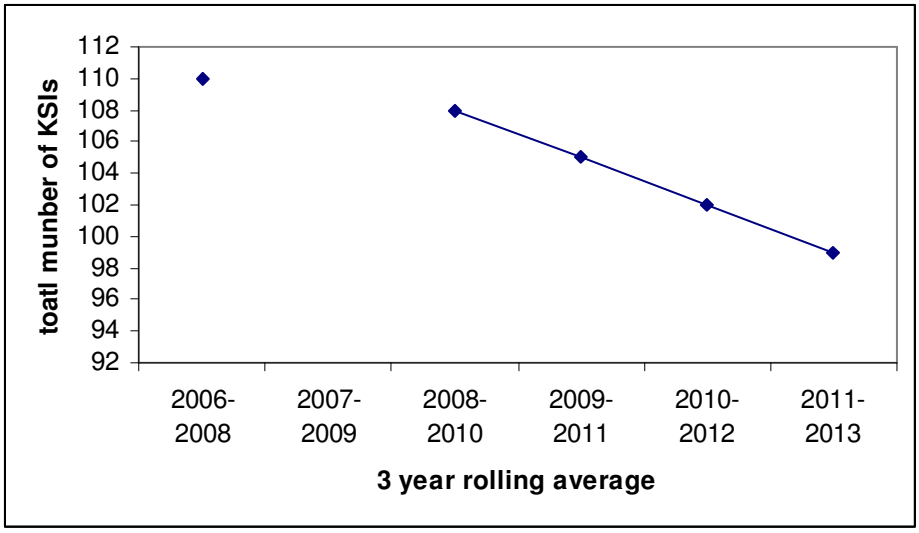
Rationale	This target reflects the Mayor of London's priority of improving road safety. Road traffic casualties have fallen significantly in London in recent years. However there is still progress to be made and boroughs have a significant role to play in improving road safety through encouragement, education, enforcement and engineering. The Department for Transport (DfT) is likely to set a target for all local authorities to reduce the number of people killed and seriously injured by at least 33 per cent by 2020.
Definition	The percentage change in the number of KSI casualties during the calendar year compared to the previous year. Figures are based on a three-year rolling average up to a current year. Includes casualties on the TLRN which is not the borough's direct responsibility.
Evidence	1. The council has seen significant reductions in road traffic casualties against the 1994 - 98 average with a 26% reduction in KSIs to the 1994 - 1998 average and a 34% reduction in slight casualties over the same period. 2. The council recognises that many of the 'high return' local safety engineering schemes have been implemented but does nevertheless wish to ensure we set ambitious targets to reduce the number of casualties in the borough and will aim to examine all possible means to deliver this. 3. The council will continue to pursue casualty reduction as an essential element of any scheme implemented but intends to place greater emphasis on education, enforcement and encouragement initiatives including inter-agency working. 4. The council wishes to pursue the same rate of reduction of casualties to 2030/31.
Data Source	Transport for London
Base	110 KSIs (2006 - 2008 three-year average)
Interim Target	2013 - 99 KSIs (2011 - 2013 three-year average).
Long term target	2030 - 51 KSIs (2028 - 2030 three-year average)
Key Actions - Council	1. Continue to use a data led approach to prioritising expenditure on all road safety initiatives. 2. Implement a range of education, training and publicity, enforcement and engineering measured focusing particularly on vulnerable road users. 3. Ensure that the council takes road safety into account in the design and implementation of all highways schemes. 4. Instil road safety principles in all school, workplace and residential travel planning and as part of walking, motorcycle and

	cycle training initiatives.
Key Actions - Other	1. TfL - work with the council to support our road safety initiatives and implement projects and initiatives to reduce casualties on the TLRN. 2. Police - work with the council to support joint road safety initiatives and carry out appropriate enforcement. 3. Education, local schools and training providers - work with the council to deliver road safety education and travel planning projects.
Risks	1. Reduced funding 2. Continued efforts producing diminishing returns, i.e. non-linear reduction in casualties. 3. Continued efforts producing diminishing results

Milestones

Base 2006 to 2008 Average	**2010** 2008 to 2010 Average	**2011** 2009 to 2011 Average	**2012** 2010 to 2012 Average	**2013** 2011 to 2013 Average
110	**108**	**105**	**102**	**99**

Trajectory



Target 4b – Road casualties – Reduce the total number of road traffic casualties on all roads within the London Borough of Hammersmith and Fulham by 10 per cent by 2013 compared with the 2006 - 2008 average.

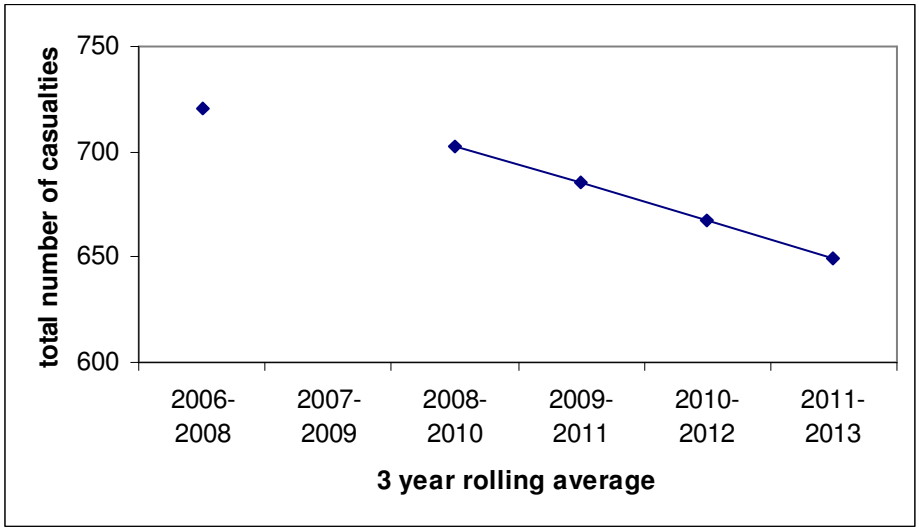
Rationale	This target reflects the Mayor of London's priority of improving road safety. Road traffic casualties have fallen significantly in London in recent years. However there is still progress to be made and boroughs have a significant role to play in improving road safety through encouragement, education, enforcement and engineering. The Department for Transport (DfT) is likely to set a target for all local authorities to reduce the number of people killed and seriously injured by at least 33 per cent by 2020. It is considered by the borough that a 33 per cent reduction in all casualties could be set as an ambitious target to mirror the KSI target. This is suggested to be measured per billion vehicle kilometres to provide a target rate rather than just number.
Definition	The percentage change in the total number of casualties per billion vehicle kilometres during the calendar year compared to the previous year. Figures are based on a three-year rolling average up to a current year. Includes casualties on the TLRN which is not the Borough's direct responsibility.
Evidence	1. The council's has seen significant reductions in road traffic casualties against the 1994 - 98 average with a 26% reduction in KSIs to the 1994 - 1998 average and a 34% reduction in slight casualties over the same period. 2. The council recognises that many of the 'high return' local safety engineering schemes have been implemented but does nevertheless wish to ensure we set ambitious targets to reduce the number of casualties in the borough and will aim to examine all possible means to deliver this. 3. The council will continue to pursue casualty reduction as an essential element of any scheme implemented but intends to place greater emphasis on education, enforcement and encouragement initiatives including inter-agency working. 4. The council wishes to pursue the same rate of reduction of casualties to 2030/31.
Data Source	Transport for London.
Base	2006 - 2008 three-year average - 721
Interim Target	2013 - 649 casualties (2011 - 2013 three-year average).
Long term target	2030 - 500 casualties (2028 - 2030 three-year average)
Key Actions - Council	1. Continue to use a data led approach to prioritising expenditure on all road safety initiatives. 2. Implement a range of education, training and publicity, enforcement and engineering measures focusing particularly on vulnerable road users. 3. Ensure that the council takes road safety into account in the

	design and implementation of all highways schemes. 4. Instil road safety principles in all school, workplace and residential travel planning and as part of walking, motorcycle and cycle training initiatives.
Key Actions - Other	1. TfL - work with the council to support our road safety initiatives and implement projects and initiatives to reduce casualties on the TLRN. 2. Police - work with the council to support joint road safety initiatives and carry out appropriate enforcement. 3. Education, local schools and training providers - work with the Council to deliver road safety education and travel planning projects.
Risks	1. Reduced funding 2. Continued efforts producing diminishing returns, i.e. non-linear reduction in casualties.

Milestones

Base 2006 to 2008 Average	**2010** 2008 to 2010 Average	**2011** 2009 to 2011 Average	**2012** 2010 to 2012 Average	**2013** 2011 to 2013 Average
721	**703**	**685**	**667**	**649**

Trajectory



Target 5 – CO_2 emissions

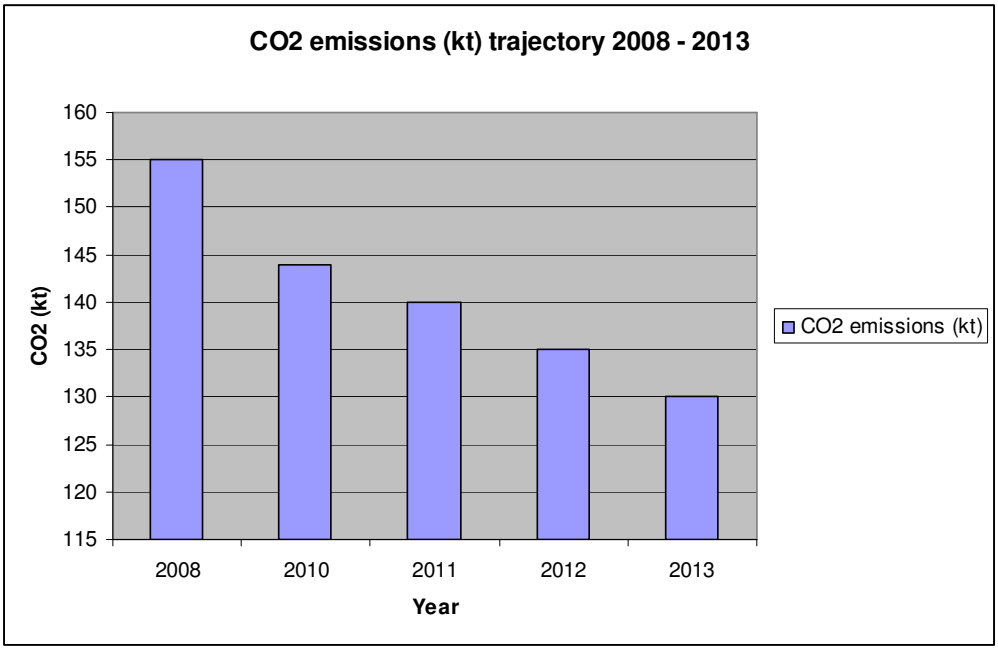
Rationale	CO_2 is the primary cause of climate change. This target reflects the Mayor of London's commitment to reduce CO_2 emissions in London by 60 per cent from 1990 levels by 2025. TfL has produced an indicative trajectory for each borough to achieve this. The trajectory for Hammersmith & Fulham shows a reduction from 155 kilotonnes (kt) in 2008 to 130kt by 2013, with a long term target of reducing emissions further to 85kt by 2025.
Definition	Kilotonnes (kt) of CO_2 emanating from ground-based transport per year. Where applicable this includes emissions emanating from trunk roads, motorways, railways and airports (ground based aviation).
Evidence	1. The Hammersmith & Fulham baseline emissions figure of 155kt represents the sixth lowest emissions of all London boroughs (top quartile). 2. Ground based transport emissions are responsible for 14 percent of total CO_2 emissions in the borough (ranked 8th – top quartile). 3. TfL's trajectory expects a 7 percent reduction in CO_2 emissions by the end of 2010 (based on 2008 base year), then further year on year reductions of 3-4 percent in 2011, 2012 and 2013. 4. Overall, CO_2 emissions from ground based transport need to reduce by 25,000 tonnes (equivalent to 16 percent) from 2008 to 2013.
Data Source	GLA London Energy and Greenhouse Gas Inventory (LEGGI) and made available by TfL.
Base	2008:155kt CO_2.
Interim Target	2013: 130kt CO_2.
Long term target	2025: 85kt CO_2.
Key Actions - council	1. Encourage more walking and cycling (specifically through the smarter travel programme). 2. Work in partnership with local schools and employers to implement travel plans. 3. Encourage land uses within development to minimise the need to travel 4. Investigate the provision of further electric vehicle charging points 5. Continue to negotiate for development with low car parking provision or on-street parking permits 6. Continue to support car clubs across the borough, and implement on street car club parking bays 7. Continue to work towards cleaner vehicle fleets 8. Continue to deliver pedestrian training in schools

Key Actions – others	1. TfL – to work to mitigate any potential CO_2 emissions impacts of removing the WEZ, implement smarter travel initiatives and support to encourage cycling and walking, continue to work with the borough to reduce traffic emissions by smoothing traffic flow and optimising road network efficiency, continuing to work towards cleaner vehicle fleets and encouraging bus operators to introduce cleaner buses.
Risks	1. Reduced funding to support measures. 2. Measures are not as effective as expected in reducing emissions.

Milestones

Base	**2010**	**2011**	**2012**	**2013**
2008	2010	2011	2012	2013
155kt	144kt	140kt	135kt	130kt

Trajectory



4.5 Local targets

The TfL LIP2 guidance encourages boroughs to set additional local indicators and targets where they are likely to help protect and secure additional funding for transport.

Through the development of the H&F LIP2 it was agreed to establish three local targets which we felt would achieve funding and allow us to expand on some of the mandatory targets that only report strategic performance.

Number	LIP2 objective	Indicator	Baseline	Short-term (interim) target	Long-term target (indicative)
6a.	2,4,5	**Bus route 220 journey time and reliability** Fulham Palace Road	NB 18.4/15.2 SB 18.0/10.2	NB 15.5/10.0 SB 16.5/7.0	NB 14.0/7.0 SB 14.0/5.0
6b.	2,4,5	**Bus route 237 journey time and reliability** Goldhawk Road	EB 7.0/4.3 WB 11.6/7.9	EB 7.1/3.0 WB 11.6/5.5	EB 6.0/3.0 WB 9.0/4.0
7.	2,4,5,7	**The school run** percentage of school trips made on foot or by bike	42%	49%	70%

Target 6a relates to local bus performance with targets set for journey time and reliability on two key strategic routes in the borough - the 220 that runs along Fulham Palace Road and the 237 that runs along Goldhawk Road. Significant improvements to both of these roads are planned as part of our delivery plan which are both subject to the uncertainties of major scheme funding.

The targets are explained further in the following tables on pages 76 to 82; NB stands for northbound, SB is southbound, EB is westbound and WB is westbound. The first figure relates to the journey time in minutes and the second figure is the reliability in minutes.

Target 7 relates to the school run. Almost every school in the borough has a school travel plan we have been making good progress managing the impact of the school run on our congested road network.

Local target 1a – Bus route 220 journey time and reliability

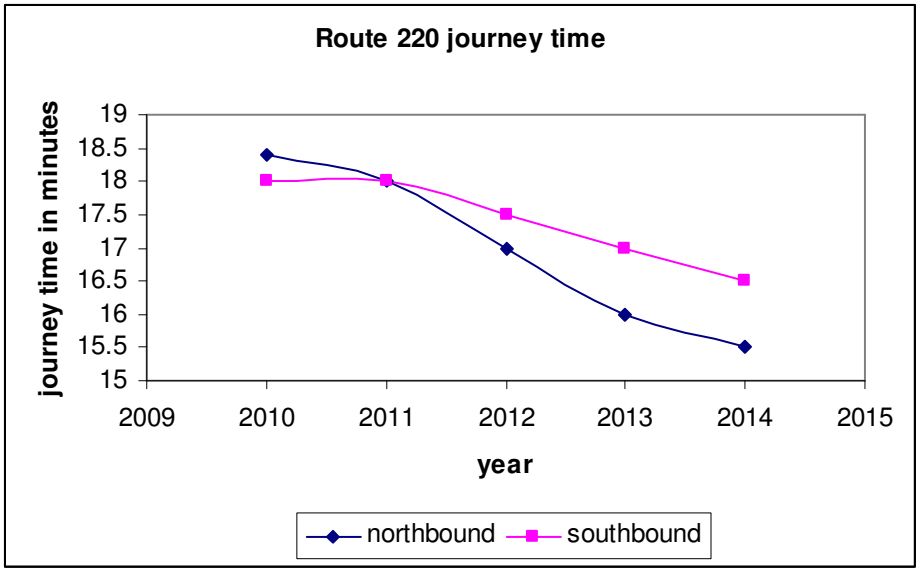
Rationale	We have adopted bus reliability and journey time targets for two corridors in the borough. The first is Fulham Palace Road which forms part of the key north-south route in the borough and has previously been identified as one of the third generation bus priority routes. The second Goldhawk Road, which the council has identified as its main priority for 'Better Streets' treatment
Definition	**A: Average actual bus journey time** **B: Difference between maximum actual journey time and average scheduled journey time (reliability)** For Route 220 northbound and southbound (Fulham Palace Road) monitoring points are between stops on Putney Bridge approach (most southerly stops in the borough) and the most southerly stops on Shepherds Bush Road All day Monday to Friday
Evidence	Baseline data has been supplied by TfL through i-bus Fulham Palace Road has one route which runs its entire length – Route 220, which was recognised in the third generation bus priorities programme.
Data Source	i-bus
Base	March 2010: NB: A 18.4: B: 15.2; SB: A: 18.0: B: 10.2
Interim Target	March 2014: NB: A: 15.5 (-16%),B: 10.0 (-34%): SB: A: 16.5 (-7)B: 7.0(-32%)
Long term target	March 2031: NB: A: 14 (-24%): B: 7(-54%);SB A: 14 (-24%):B: 5
Key Actions - council	1.Implementation of the corridor schemes in Fulham Palace Road which include the majority of the 3G suite of improvements 2. Implementation of the Fulham Palace Road (Major scheme) in 11/12 which is now fully funded. This will see the construction of a slip road at the junction of Fulham palace Road with Hammersmith Gyratory increasing throughput to all traffic and smoothing traffic at this bottleneck
Key Actions – others	TfL – provide funding for above schemes London Buses and bus operators – continue to improve performance management of bus services

Risks	Lack of funding for improvement schemes Schemes delayed or not implemented due to unfavourable consultation responses Growth in traffic cancels out benefits of schemes Management and performance of bus operations is not maintained Lack of measures in other boroughs cancels out benefits in this borough (Long term) momentum of policies and investment not maintained Delay due to construction of schemes (which has been taken into account in the short term milestones for 2011)

Milestones – 220 journey time

March 2010	March 2011	March 2012	March 2013	March 2014
NB – 18.4 SB – 18.0	NB – 18.0 SB – 18.0	NB – 17.0 SB – 17.5	NB – 16.0 SB – 17.0	NB – 15.5 SB – 16.5

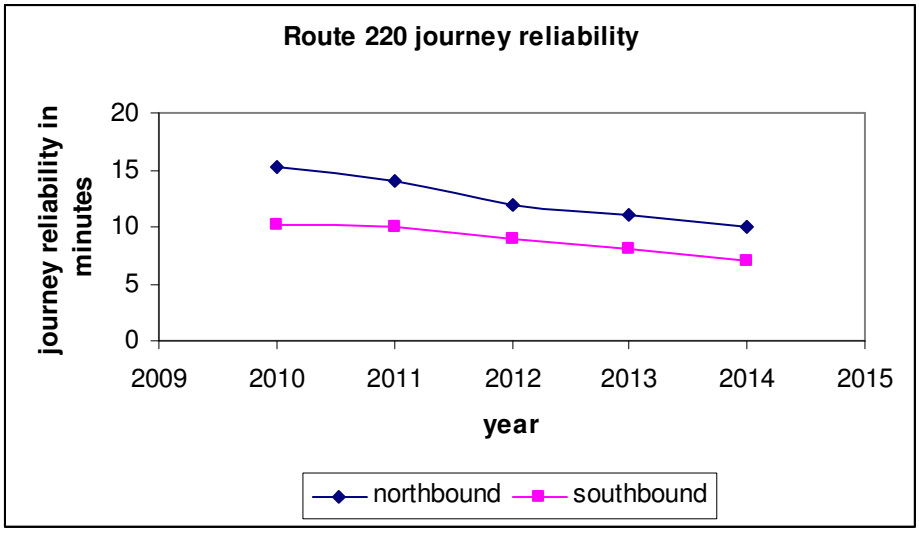
Trajectory – 220 journey time



Milestones – 220 journey reliability

March 2010	March 2011	March 2012	March 2013	March 2014
NB – 15.2 SB – 10.2	NB – 14.0 SB – 10.0	NB – 12.0 SB – 9.0	NB – 11.0 SB – 8.0	NB – 10.0 SB – 7.0

Trajectory – 220 journey reliability


Route 220 journey reliability
journey reliability in minutes
20
15
10
5
0
2009
2010
2011
2012
2013
2014
2015
year
northbound
southbound

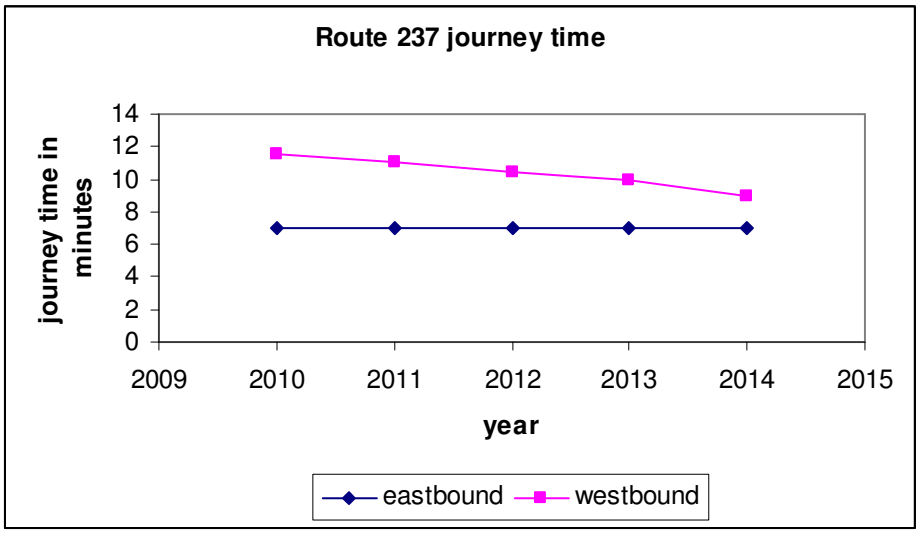
Local target 1b – Bus route 237 journey time and reliability

Rationale	We have adopted bus reliability and journey time targets for two corridors in the borough. The first is Fulham Palace Road which forms part of the key north-south route in the borough and has previously been identified as one of the third generation bus priority routes. The second Goldhawk Road, which the council has identified as its main priority for 'Better Streets' treatment
Definition	**A: Average actual bus journey time** **B: Difference between maximum actual journey time and average scheduled journey time (reliability)** Route 237 eastbound and westbound for Goldhawk Road All day Monday to Friday
Evidence	Baseline data has been supplied by TfL through i-bus Route 237 will be monitored along the whole length of Goldhawk Road
Data Source	i-bus
Base	March 2010: EB: A 7.0:B: 4.3;WB: A11.6:B:7.9.
Interim Target	March 2014: EB: A: 7 (0);B: 3 (-30%): WB: A:11.6 (0) B: 5.5 (-30%)
Long term target	March 2031: EB A:6(14%): B:3(-33%): WB: A:9(-24%):B:4 (-56%)
Key Actions - council	Implementation of Goldhawk Road major project as per the study detailed on page 35. It is anticipated that major funding submission will be submitted in 2011 following detailed design and engagement. Construction will follow post Olympics in 2012 and 2013
Key Actions –others	TfL – provide major project and funding for above schemes London Buses and bus operators – continue to improve performance management of bus services
Risks	Lack of funding for improvement schemes Schemes delayed or not implemented due to unfavourable consultation responses Growth in traffic cancels out benefits of schemes Management and performance of bus operations is not maintained Lack of measures in other boroughs cancels out benefits in this borough (Long term) momentum of policies and investment not maintained

Milestones – 237 journey time

March 2010	March 2011	March 2012	March 2013	March 2014
EB – 7.0 WB – 11.6	EB – 7.0 WB – 11.0	EB – 7.0 WB – 10.5	EB – 7.0 WB – 10.0	EB – 7.0 WB – 9.0

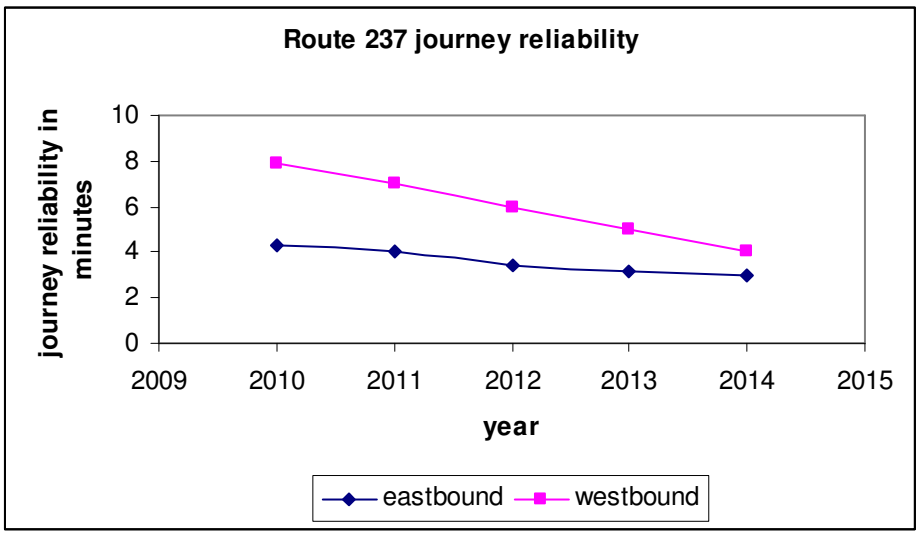
Trajectory – 237 journey time



Milestones – 237 journey reliability

March 2010	March 2011	March 2012	March 2013	March 2014
EB – 4.3 WB – 7.9	EB – 4.0 WB – 7.0	EB – 3.4 WB – 6.0	EB – 3.2 WB – 5.0	EB – 3.0 WB – 4.0

Trajectory – 237 journey reliability



Local target 2 – school run - to increase the percentage of journeys to schools in LBHF made on foot or by bicycle from 42% in 2004/5 to 49% by 2013/14.

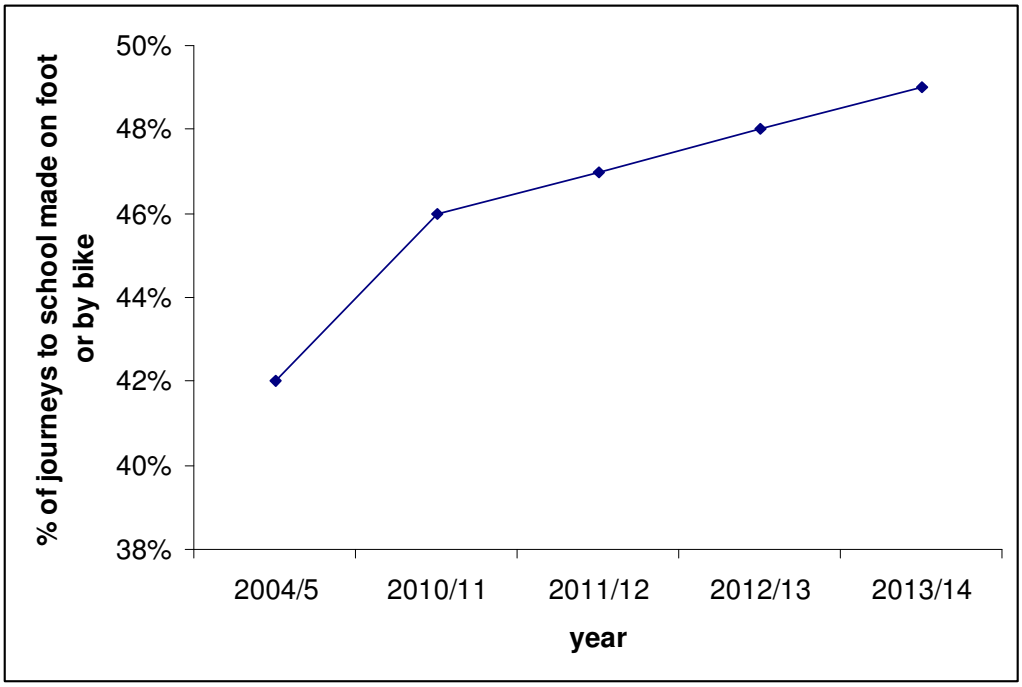
Rationale	Monitoring the proportion of personal trips to school by mode of travel gives a broad indication of the general travel behaviour of children in the borough.
Definition	Proportion of walking and cycling trips to H&F schools, expressed as a percentage of all trips to school. NB: main mode only, and some of these trips will begin outside H&F.
Evidence	1. The 2005 baseline of 42% was well below the 2005 London-wide average of 51%. However, most trips to H&F schools are less than one mile and well suited to walking or cycling. 2. All schools in the borough, with the exception of Hurlingham & Chelsea have done a school travel plan (STP) which is designed to cut driving to school and to increase the use of alternative modes, as well as improve road safety for pedestrians and cyclists travelling to school. 3. Most schools (60 out of 72 in September 2010) are keeping their STPs active, i.e. a review completed every year including new targets and action plan. 4. The predicted rising trajectory of walking or cycling to school is based on previous performance.
Data Source	iTRACE
Base	**2004/5 – 42%**
Interim Target	**2013/14 – 49% (7% increase)**
Long term target	**2030/31 – 70% (28% increase)**
Key Actions - council	1. Continue to encourage walking and cycling to school through the school travel plan programme 2. Continue to deliver 'walk on Wednesday' and 'walk to school week' campaign materials into schools 3. Continue to deliver cycle training and the Bike-It project into schools 4. Continue to provide funding for schools to install and improve cycle parking and pedestrian shelters and other capital expenditure to enhance walking and cycling to school 5. Continue to maintain our footways to a high standard 6. Continue to improve the cycling environment (safe cycle routes and increasing levels of secure cycle parking)
Key Actions –others	1. TfL – to continue to provide budget for school travel advisor 2. TfL – to continue to review traffic signal timings in favour of cyclists and pedestrians 3. Police – to continue to carry out enforcement and education initiatives with schools 4. PCT – to continue to work with the council to educate children and parents about the health benefits of walking and cycling 5. Schools – to continue to keep their travel plans active and current.

Risks	1. Reduced funding for school travel initiatives 2. Reduced funding for capital grants available to schools to improve their cycle parking arrangements for example.

Milestones

Base 2004/5	**2010/11**	**2011/12**	**2012/13**	**2013/14**
42%	**46%**	**47%**	**48%**	**49%**

Trajectory



Locally specific targets for mandatory indicators

Borough:

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	Financial	%	2006/7 - 2008/9	36.9	2013/144	37.5	2010/11	2011/12	2012/13	2013/14	LTDS
								37.05	37.2	37.35	37.5	
Mode share of residents	% of trips by cycling / no of trips	Financial	%	2006/7 - 2008/9	3.9	2013/14	4.5	2010/11	2011/12	2012/13	2013/14	Specify LTDS or b screenline counts
								4.05	4.2	4.35	4.5	
Bus service reliability	Excess wait time in mins	Financial	Mins	2009/10	1.2	2013/14	1.2	2010/11	2011/12	2012/13	2013/14	iBus
								1.2	1.2	1.2	1.2	
Asset condition - principal roads	% length in need of repair	Financial	%	2009/10	8.4	2013/14	8.4	2010/11	2011/12	2012/13	2013/14	Detailed Visual In data supplied for TfL by LB Hamme Fulham
								8.4	8.4	8.4	8.4	
Road traffic casualties	Total number of people killed or seriously injured	Calendar	Number	2006-2008	110	2013	99	2010	2011	2012	2013	London Road Saf
								108	105	102	99	
Road traffic casualties	Total casualties	Calendar	Number	2006-2008	721	2013	649	2010	2011	2012	2013	London Road Saf
								703	685	667	649	
CO2 emissions	CO2 emissions	Calendar	Tonnes/ year	2008	155	2013	130	2010	2011	2012	2013	GLA's London En Greenhouse Gas Inventory (LEGGI
								144	140	135	130	

Additional (non-mandatory) local targets

Local indicator	Definition	Year type	Units	Base year	Base year value	Target year	Target year value	Trajectory data				Data source
bus route 220 journey time	average actual bus journey time	calendar	mins	March 2010	N- 18.4 S-18.0	2014	N-15.5, S16.5	March 2011	March 2012	March 2013	March 2014	ibus
								N-18, S-18	N-17, S-17.5	N-16, S-17	N-15.5, S-16.5	
bus route 220 reliability	difference between maximum actual journey time and average scheduled journey time	calendar	mins	March 2010	N-15.2, S-10.2	2014	N-10, S-7	March 2011	March 2012	March 2013	March 2014	ibus
								N-14, S-10	N-12. S-9	N-11, S-8	N-10, S-7	
bus route 237 journey time	average actual bus journey time	calendar	mins	March 2010	E-7, W-11.6	2014	E-7, W-9	March 2011	March 2012	March 2013	March 2014	ibus
								E-7, W-11	E-7, W-10.5	E-7, W-10	E-7, W-9	
bus route 237 reliability	difference between maximum actual journey time and average scheduled journey time	calendar	mins	March 2010	E-4.3, W-7.9	2014	E-3, W-4	March 2011	March 2012	March 2013	March 2014	ibus
								E-4, W-7	E-3.4, W-6	E-3.2, W-5	E-3, W-4	
school travel modal share	% of school trips by cycling and walking	Financial	%	2004/05	42	2013/4	49	2010/11	2011/12	2012/13	2013/14	hands up classroo
								16	47	48	49	