

## London gets greener – sustainable transport

The aim of this briefing is to show how London's transport system has become more sustainable since the creation of the greater London Authority in 2000. It does not discuss the actions which have been taken by the Mayor, or TfL, which will damage the environment and which work against the creation of a sustainable transport system.

The first section of this report covers the main areas of TfL's work which have become more sustainable since 2000. It tries to be factual and brief, but still misses large amounts of what TfL has achieved. It starts by covering the main policy initiatives of the Mayor's first term (2000-04) such as congestion charging and bus improvements. It then deals with cycling, walking and travel demand management, which have become a very important part of the green group's work. Road Safety is dealt with at length, before moving onto a series of other initiatives taken by TfL to improve the safety, accessibility and capacity of the transport system.

The second section deals with pilot schemes, innovations and also proposals which are out for public consultation.

### **Traffic reduction**

Central London is the only part of the UK where traffic is reducing and public transport is getting better. In London, a third more people are using buses than they did five years ago and the number of cyclists has increased by 50% since the GLA was created in 2000. Elsewhere in the UK, the number of people on buses, or cycling has barely changed since the 1997 election.

### **The shift to public transport 1999 to 2005**

- Population increased by 5%
- Total trips increased by 9%
- Public transport trips increased by 23%
- Bus travel up by 40%
- Train travel up by 14%
- Tube travel (including DLR) by 7%
- Walking increased by 10%
- Cycling increased by 52%
- Taxi trips increased by 5%
- Car trips decreased by 1%

During this period, public transport increased from about 32% to 36%, whilst cars share fell from 46% to 42%.

### **Congestion Charge**

Since the congestion charging scheme started in February 2003, London has seen:

### Reduced congestion

- Average reduction in traffic in zone since the scheme began is 26% well above the Mayors target of 20%
- Congestion within the zone is 22% lower in 2005 than in 2002
- Casualty rates down with up to 70 fewer personal injuries directly due to congestion charging
- 30% reduction in congestion, a 15% fall in traffic levels and a decline in road deaths and injuries
- An increase in cycling within the zone of 43%
- Direct impact on improving speed and reliability of buses with excess waiting time for buses reduced by 46% within the zone
- Better road allocation space, shows improvement in road safety and assisting pedestrians, cyclists and buses
- A Friends of the Earth poll cited 38% of Londoners used to use their cars once a day, now down to 19%. (Statistics from Friends of the Earth)
- 40% of London households do not own a car compared with 27% of UK household who do not own a car
- The proportion of Londoners owning cars has diminished in 2004 to levels not recorded since 1988
- In central London, cars and vans are only used by 10% of people as the main mode to work. This rises to 64% in outer London and 76% in the rest of the UK.

### Cleaner Air

- A reduction of 13% in Nitrogen Oxide and 15% in Particulate Matter vehicle emissions within the zone
- A reduction in carbon emissions from traffic within the zone of 16%
- Retail footfall now outperforming the rest of the UK and returning to a pattern of year-on-year growth.

### No major adverse affects on business

- The charge has had no identifiable effect on the number of business starting up or closing down within the zone compared to the rest of London and no effect on property prices
- West End is doing well, with figures from the Society of London Theatre showing that theatres took their best ever revenue in 2004 and achieved their second best audience numbers since records began in the 1980s.

### Investment and Extension

- July 2005 increased from £5 to £8, with improvements in monthly and annual discounts and ability to pay the next day
- £122 million being raised, in the financial year 2005/06, to invest back into London's transport system:
  - £100m for bus service enhancements
  - £14m for additional roads and bridges
  - £4m for further road safety measures
  - £4m to encourage more walking and cycling.
- February 2007 extension to wider area of Central London including City of Westminster and most of Kensington and Chelsea

## Buses

In 2005/2006:

### Bus Demand

- London Buses carried 1.8 million passengers, highest number since 1965
- Increase in demand of 40 per cent since 2000 for buses in contrast to declining trends in other parts of the UK

### Bus Accessibility

- Excess Wait Time (EWT) for routes serving the central area improved by more than 30 per cent in the year following charging, and by 20 per cent for other routes.
- Since December 2005, all buses have been accessible to everyone, including those with limited mobility
- Additional bus shelters have been added, now 70% of bus stops have shelters compared to 58% in 1998
- Four new bus priority lanes were completed. Since the start of the investment program in 2004, 101 bus lanes have been created, offering 2.383km hours 'protection' to bus services
- £1.5m has been invested in making the Capital's buses cooler– 20 per cent of the fleet – are now equipped with forced-air ventilation or air-cooling systems and additional upperdeck windows
- Bus stops across the entire network have been fitted with stop-specific timetables and 'spider maps'. The latter now exist at 530 separate locations, a figure that will rise to more than 900 by 2007/2008
- More than 2000 countdown signs have now been installed, with iBus being able to include visual and audio next stop announcements that benefit those with sight and hearing disabilities

### Cleaner Buses

- By December 2005, all London buses met the minimum Euro II emission standard. The entire fleet was also fitted with particulate filters by the same date. These reduce emissions of fine particles, hydrocarbons and carbon monoxide by 90%
- Twenty-four buses have now been fitted with NOx abatement equipment, and initial tests show that this reduces NOx by between 45 and 65%
- Installation of solar technology at bus stops will give London the biggest Solar stops in the world, being introduced over the next 5 years (1400 per year), ensuring better safety and reliability.

### Hybrid Buses

- A pilot of 6 diesel Hybrid single decker buses was introduced in March 2006 – it is hoped that they will produce 40% less carbon dioxide than their diesel powered forbears.
- A pilot of the first hybrid double-decker bus in the world.
- TfL report to the T&E from the MWN showed Hybrid buses can reduce emissions of CO2 by more than 30 per cent, in addition to achieving noise levels that are four decibels below the legal limit.

- TfL have included in their base budget funds for a further exploration stage to increase the volume of hybrid vehicles (with the aim of procuring 40 hybrid buses between now and 2008/09) as well as the type of vehicle (e.g. aiming to trial a double-decker hybrid in August 2006).
- Following this exploratory period TfL have made provisional budgetary options (not yet funded) for rolling out hybrids, with purchase of 100 by 2009/10 and 250 by 2010/11.

### Hydrogen Buses

- GLA set up the London hydrogen partnership to combine the resources of the private and public sectors in adopting this new technology
- Trials of new technology are increasing important as there are currently 7952 buses in the fleets of London Buses' contractors
- MWN provided update on progress with the Hydrogen Transport Plan, which aims to see 10 hydrogen buses and 60 hydrogen cars/vans introduced into London by 2010.
- TfL issued two OJEU tenders in June 2006 (with September 6 2006 deadline) for 1) the 10 single deck buses; and 2) the accompanying fuelling infrastructure to support these buses
- The 10 buses will provide a full operating fleet for the RV1 route. It's expected that the buses will be kept at a garage with the fuelling station on site, with potential that this garage will also be utilised for re-fuelling TfL's other hydrogen vehicles (see below)
- There are three serious bidders for these contracts at present. The contract will include maintenance and sets a challenge of improving the operating range of the hydrogen and hybrid combination buses to 18/19 hours before refuelling
- Budget for the 10 buses is already secured
- Since January 2004 three 'zero emission' hydrogen fuel cell buses have been tested

### Hydrogen cars and vans

By November TfL hope to have completed their evaluation period, including:

- Consultation to understand end user requirements (consulting the GLA Group fleet operators as first priority)
- Competitive dialogue with operators to understand what vehicles can be offered
- Assessment of funding options to finance the procurement of these vehicles (in discussion with functional bodies)

## Travel Demand Management (TDM)

As a result of the budget agreement between the Mayor of London and the Green Party members of the London Assembly, the TDM team has expanded from 6 staff in 2005 to a team of 24 in 2006 staff to deliver the enlarged TDM program. TDM is critical to ensure a greener and more sustainable London. The team is on track to deliver a budget of £24m in 2006/07 and to expand to £30m in 2007/08. This investment will include travel planning products for schools and workplaces and travel demand areas for commuting, car clubs and town centres as well as fostering greater awareness through a number of targeted campaigns. All of these individual initiatives are listed below.

The Kingston New Malden personalised travel planning pilot is underway, along with Haringey confirmed as the location of the second pilot to start in September. Selection of the Town Centre pilot location has been confirmed as Sutton. This concentrated programme of activity will launch in September. Targets have been set for the new expanded school and workplace travel plan teams, linked to on-going developments in strategy and collateral.

Resources for travel demand management (TDM) activities have increased to £24m in 2006/07 from £14m in 2005/06 (i.e. an increase of over 70%) due to the growing recognition of the benefits these activities in reducing the need for travel and encouraging the use of more sustainable modes. Much of the activity is focused in outer London.

### **Workplace travel plans**

What it is:

- Programme for employment sites, addressing how transport needs can be met with lower car use (e.g. car sharing, teleworking, bike parking)
- Generally see 10-18% reduction in car km's
- Very low market penetration in London at present

What TfL is currently doing:

- Funding 6 regional workplace travel planners and employ 1 central manager
- Focusing on new developments, GLA family, and building private sector contacts (conferences, marketing materials, partnerships, etc.)
- 2 new relationship managers on TfL staff to work with large companies (all other travel plan coordinators work for sub regions of London)
- NHS Forum established to develop and support travel plans in partnership with Strategic Health Authority (includes SHA, TfL, NHS trusts, PCTS and sub regions)
- Target 125 voluntary travel plans across London in 05/06 –exceeded
- Target 06/07 (minimum 25,000 employees covered)
  - Public Sector focus
  - Development of Travel Plan club for SMEs
  - Development of TMA approach (area wide travel plans e.g 4Holborn)
  - Town Centre Project

### **School travel plans (STP)**

What it is:

- Programme for schools, aimed at reducing car mode share for pupil and staff journeys
- Generally see 10-20% reduction in car km's
- Can include infrastructure changes

What TfL is currently doing:

- Funds 6 of the 33 borough-based school travel planners
- Distributes money to boroughs via grants and walking & cycling team (c.£94k per school to date)

- Coordinating uptake of STP's via borough-based school travel advisors
- Target is mayoral commitment to have a travel plan in all schools by 09. There are a total of 3050 schools in London (based on DfES lists)

Achieved by 05/06:

- Total: 1066 travel plans
  - 47% (854) of all London Primary Schools (including Nursery Schools)\*
  - 34% (142) of all London Secondary Schools (including Academies) \*
  - 11% (30) of all London Special Schools (including PRUs) \*
  - 10% (40) of London Independent schools\*
- \*based on DfES lists

One report received so far from Bromley, shows an average modal shift (36 schools) of 13% reduction in single occupancy car use. 32 other boroughs reports expected by Aug 2006.

### **Personalised travel plans**

What it is:

- Individualised tailoring of travel information
- Face to face or telephone conversation between each person and a travel advisor, to determine how that person can best use other options
- Usually involves giving each person travel information specific to their needs (e.g. bike maps for their route to work)

What TfL is currently doing:

- Just started to approach c.150k people in 4 boroughs with postal campaign and telephone calls
- Dedicated call-centre team of travel advisors
- Target is for 20k responses, with 8-12% reduction in car km's travelled
- Cost is c.£1m (average of £50 per respondent), but would fall to c.£35 per respondent in year 2 due to one-off set-up costs

**Personalised Travel Planning (PTP):** delivery of three PTP programmes in Kingston, Sutton and Haringey targeting over 55,000 households this year.

The London Borough of Haringey is launching a 'free personalized advice' service about local travel options. Is this a scheme that is being pursued in all the London Boroughs, and what is the cost of the scheme, both to TfL and the Boroughs?

The free PTP service is currently being provided in selected wards in the London boroughs of Haringey and Sutton, targeting 28,000 and 6,500 households respectively. The Haringey scheme will cost an estimated £450,000. The costs are borne by TfL.

PTP uses one-to-one contact with customised information to help people use public transport, cycling and walking for some of their trips. Previous PTP schemes in London have been shown to reduce car use by on average 6%. With congestion estimated to cost the Capital in excess of £1.6b per annum the investment in PTP and

the returns it will provide in reducing congestion and improving peoples quality of life represents good value for money.

## **Car clubs**

UK – 26 car clubs with total of 1,300 members

London

- 4 car clubs with total of 1,000 members
- London City Car Club, WizzGo (Camden), My Street Car (Operate in any Borough) UrbiGo (Southwark, Sutton)
- London City car club – 7 boroughs involved, with total of 200 members
- Impact
- 11 boroughs now have a car club, with more planned so that all inner and central London boroughs have something).
- European & UK research suggests an average of 33% reduction in car km's travelled for members
- This rises to 65% for members who owned a car prior to joining

Financing

- TfL funding to date of £490k, plus £200k in research (London City Car Club only)

Resourcing

- TfL – one Part-time Car Club Co-ordinator
- Part-time borough involvement in London City Car Clubs only

## **Cycling**

- Cycle journeys on London's main roads rose by 72% between 2000/01 and 2005/06 and have doubled during the summer months
- Despite this increase, the number of cyclists killed and seriously injured on London's roads has fallen by 34% since the late nineties, although the number of fatalities has not decreased in the same way.
- Network Cycle routes have been improved on 70km of roads, bringing the cycling network up to 500km
- 20% increase within the Congestion Charging zone
- TfL's investment in cycling has increased from £5.5m in 2000 to £24m in 2006/07. Improvements include;
  - New traffic lights and a network of on-street and off street cycle routes have been introduced to reduce casualty rates at roundabouts showing an 80 per cent decrease in the number involving cyclists.
  - In June 2004, a new bike shelter at Walthamstow Central station opened using smart card technology.
  - TfL has also built cycling facilities at Finsbury Park consisting of 125 lockable cycle racks that provide sheltered, secure, 24-hour parking, covered by CCTV cameras and staffed during weekday peak hours.
- In the future there will be key promotion of cycling including 2007 the Tour De France Grand Depart coming to London, bringing the world's greatest cycle race to the world's greatest city.

- TfL and the London Boroughs have established an effective system for the local delivery of modern cycle training to children, teenagers, adults, and families. The process is directed and co-ordinated by TfL and reaches around 10-15% of eleven year olds at school.

## Road Safety

In London we have invested more in road safety and have reduced road casualties far faster than in other urban centres.

London met national road safety targets in 2005 almost five years early. This came after almost reaching the Mayor's original target of 40 percent by the end of 2004, some six years early. This reduction means that 2500 people are saved from death or serious injury every year. TfL will be well placed to sustain the Mayor's new targets of 50% reduction in those killed and seriously injured on the roads (and a 60% reduction in children killed and seriously injured) by 2010.

- Total spending on road safety in London has more than doubled in the last six years (increasing from £20m per annum in 2000 to £46.4m a year in 2006/07).
- London has achieved most of the Government's targets for reducing road casualties five years early. All road casualties by 40% by 2010. It is also ahead of the target for cutting child casualties by half.
- London has adopted far tougher casualty reduction targets than the rest of the country.
- Despite the rapid rise in the number of cyclists in London, the number of cyclists killed or injured has actually gone down in recent years.
- Despite the continuing rise in motorbike casualties in the rest of the UK, London has had a two year fall in powered two wheeler casualties, helped by TfL's Skills Days for riders of powered two wheelers.
- London is currently exploring the use of safety cameras and speed limiters as a way of replacing the need for engineering measures such as road humps.

### **Road safety policing**

- The number of traffic police in London is half of what it was in the 1980s.
- Numbers of traffic police have remained fairly stable since 2003 at around 280 officers.

Despite this, road traffic enforcement work done by the Met Police has grown in recent years:

- The number of prosecutions for drivers in London using mobile phones reached nearly 20,000 last year;
- The Met Police increase their capacity to seize and store the vehicles of illegal drivers from 4,000 per annum to 9,000 per annum (many of these are subsequently crushed);
- A half day speed awareness course has been set up to handle a 140,000 drivers in London each year who go just over the speed limit;
- A total of 3312 Fixed Penalty Notices issued to cyclists from 1 August 2005 to 30 July 2006.

Fixed Penalty Notices (FPNs) for the offence of driving with no valid insurance were first introduced in early 2003, and numbers issued are as follows:

- 2003/04 = 997
- 2004/05 = 2945
- 2005/06 = 6178

### **Digital cameras**

New digital speed cameras will be introduced at up to 10 sites initially in order to assist the introduction of the new speed awareness courses, with up to 56 further digital cameras likely to be introduced on the capital's roads within the next six months. Digital cameras are successful at helping to identify who was driving a speeding vehicle.

Speed cameras installed by London Safety Camera Partnership have on average seen a 40 percent reduction in the number people killed or seriously injured since the late 90s. The partnership estimates that 66 new cameras would lead to a reduction of 80 people killed or seriously injured every year in London.

### **Education**

- The Safety and Citizenship Programme managed by the Transport Museum reached 93,000 school children, aged 10 or 11, in its first year of operation.
- TfL have helped reduce casualties on London's roads by more than 45% since 1994–98. By the end of 2004, TfL had met the UK's national 40% casualty reduction targets some five years early.
- In March 2006 the Mayor announced a new 50% casualty reduction target – with a 60% decrease for children. The 2005 casualty figures indicated that TfL is well on the way to meeting these.
- Award-winning publicity campaigns such as 'Don't Die Before You've Lived' aimed at teenagers, and the introduction of the Children's Traffic Club for three-year-olds. Road Safety Forum to oversee joint working, development and dissemination of best practice to reduce accidents.

## **Other major projects and initiatives**

### **Tube and climate change**

TfL is working with ERM to explore options for greening TfL's energy supply, achieving efficiencies, and incorporating these improvements into the PPP contracts and rolling stock upgrades. There will be a detailed action plan by end of 2006. In the last 12 months concepts e.g. of combined heat and power, have become initial plans. Re-negotiations of PPP contracts will include incentivising infracos to be more energy efficient. Regenerative braking is being extended to all lines as planned PPP upgrades take place over the coming 15 years.

- An extra seventh carriage has been added to all Jubilee line trains, increasing capacity by a further 3,000 passengers every morning and evening during peak hours. The fleet itself has also been increased, from 59 to 63, boosting passenger capacity by 17 per cent.

- An environmentally friendly cooling system for Victoria line platforms is expected into service later this year support of the DfT.
- More than 80 stations have been refurbished and renovated since 2002.
- Ticket halls have been built at King's Cross station, doubling it's capacity to ease congestion in the peak, now handling 250 000 passengers a day.
- Interchange facilities have been upgraded at Finsbury Park and Greenwich stations during 2006
- TfL has already cut energy use at London underground stations by a quarter and they aim to save more energy at stations by:
  - Turning off lights and escalators during engineering hours
  - Reducing air conditioning use
  - The regenerative braking system, which transforms the heat produced by braking into new energy.
  - 18% of the energy brought by LU is now sourced from renewable energy

Since 2000, the planning system has been changed to dramatically increase the density of developments in London, with more offices, commercial properties and dwellings being built on available sites, especially those sites accessible to public transport. Many local authorities have encouraged virtually car free developments with only a few parking spaces for disabled drivers and some allowed for car clubs. To be properly enforced, these developments have to be within areas with residential parking – these now cover most of inner London, as well as some areas near to popular 'suburban' rail/tube stations.

The changes to planning policy have contributed towards a reversal of the historic trend towards car ownership. In the last five years, the number of households without a vehicle has increased from 35% to 40%. This has been perfectly mirrored by a drop in the number of one car households from 45% to 40%. If this trend continued over the next five years, then we would return to the situation where over half of London's households do not own a car. This contrasts with the rest of the country where the number of households without a vehicle has declined to 25% and the number of households with two vehicles is going up.

## **DLR**

The DLR London City Airport extension opened in December 2005, and, already, more than 80,000 journeys are being made each day. Further construction is underway to extend the line to Woolwich Arsenal. The 2.5km of extra track, due to be operational in 2009, triggering regeneration. The new route will provide essential DLR cross-river connections to the shooting venues for the 2012 Olympics. It will also offer a fast and frequent service to the City and Docklands, offering easy access to London City Airport and the Channel Tunnel Rail Link.

The capacity of the DLR will be enhanced by lengthening its trains from two-car to three-car on its busiest route Bank/Tower Gateway to Lewisham, by 2009. By 2010, an extra car will be added to train services to and from Stratford well in time for the Olympics. This will provide an increase in capacity of up to 50 per cent.

## **East London Line Project and Crossrail**

The line is being extended and upgraded to a new high-frequency service running north with phase one aiming for 12 trains an hour from Dalston Junction to New Cross, to Crystal Palace, and to West Croydon. This will revitalise some of London's most deprived areas, improving access to work and leisure opportunities for more than 75,000 people in north east, south east and south London.

### **Croydon Tram Link**

During the past year of operation, 21 million passenger journeys were made on its 28-km network. In 2002, a TfL and DfT study showed that more than 7,000 car journeys per day had 'transferred to the Tramlink since its introduction.

### **Freight**

The London Construction Consolidation Centre (LCCC) pilot was launched in September 2005. Serving four construction sites in Central London, to make freight distribution more reliable, efficient and environmentally-friendly. By March 2006, the LCCC had helped to achieve a 60 percent reduction in road journeys to and from the four sites that were taking part in the pilot, with 91 percent reaching the right destination at the right time.

### **Accessibilty**

Currently 45 stations out of 274 have step-free access from street to platform with work underway on a further four. By 2010, 25% of Tube stations will have step-free access, and this will increase to one-third by 2013. Since September 2005, all children under the age of 16 have been able to travel on London buses and trams free of charge.

In 2005 TfL put 83 new Dial-a Ride vehicles at their disposal, now including better suspension, more space and electric swiveling seats.

The DLR recruits 'Ambassadors' work within communities to disseminate travel and safety information and provide guidance on issues such as ticketing and personalized travel planning. The 'Out and About' scheme helps people with learning difficulties to make journey's independently.

### **Oyster Card**

In 2004/05, 32 million fewer tickets needed to be issued, as Oyster accounts for more than 60 per cent of the 4.6 million trips made each day on London's transport system. Its use has cut cash transactions on buses and queuing time at ticket offices, which in turn reduces waiting time for passengers. Also, having fewer customers at ticket offices frees up staff time, which can then be used to provide better customer service. More than 7 million have been issued , since being launched in 2003 and they are used for 2.9 million bus journeys and 1.7 million tube trips. It is the only card in the world to offer daily price capping. In 2008 it will be rolled out across the national rail network with in greater London, allowing better ease of movement across different modes of public transport in London

## **Fares**

Age limit for free travel on buses and trams extended from 5 to 11 in 2004. This was further extended to 16 years of age in September 2005, and in 2006 to all 16 and 17 year olds in full time education who are now eligible for free travel on buses and trams. Free travel on the Tube at off-peak times was granted to all under 11's in April 2006 accompanied by adult fare payers.

In addition TfL operator the following concession schemes:

1) 18+ Photocard scheme: Student Oyster photocard entitle the holder to get 30% off the adult rate on Bus Passes and Travelcards valid for seven days, one month or longer periods of up to one year.

2) Freedom Pass: Freedom Passes allow older and eligible disabled people who live in a London borough to travel free on London's public transport network. Freedom passes are available to permanent London residents aged 60 years and over, and those who have eligible disabilities.

3) New Deal: New Deal is a Government programme that aims to give unemployed people the help and support they need to get into work. People on the New Deal scheme can apply for a New Deal photocard that enable them to buy the following tickets at reduced rates:

- \*Buy and use child-rate Tube and DLR cash single and return tickets
- \*Get an Oyster card to buy Travelcards and reduced-rate Bus Passes
- \*Use Oyster to pay as you go at 50 per cent of the adult Oyster rate

4) School Party Travel Scheme: The Transport for London School Party Travel scheme is open to all schools located within the Greater London area. It offers free travel on Tube, DLR, bus, tram and National Rail services (within Greater London only) to venues of an educational and cultural interest that enhance, support and supplement teaching as part of the National Curriculum.

## **Safety**

### Walking

- TfL has invested in Controlled crossings and footbridge and subway improvements, Better lighting and security at more than 50 sites including the opening up of railway arches for walkers, together with new sections of riverside and additional canal paths and increased traffic calming within residential areas.
- A 78 mile 'Capital Ring' Strategic Walking Route around London has been completed and TfL is also funding the Walk to School Week.

### Buses

- The number of night bus routes serving central London and suburban town centres has risen from 57 in 2000 to 100 in 2006.
- Every bus is fitted with a CCTV camera, and a dedicated team of police officers patrols the routes. Drivers have the support of CentreComm, London Buses' 24/7 emergency communications centre.

### Trains and Stations

- TfL has invested £20m on security improvements on trains and at stations. The installation of more CCTVs, passenger Help-points, enhanced lighting, information systems and anti-vandal shelters, as well as greater on-board security on trains. A Campaign to tackle graffiti is helping to make passengers feel safer.
- The introduction on the DLR of a 12-member strong team of Travel Safe Officers, which patrols stations and trains (predominantly late at night) to stamp out anti-social behaviour.

### Taxis

- In October 2004 TfL trialed a marshaled taxi rank in London's West End.
- Since 2005 all minicab companies and minicab vehicles have been licensed.
- The licensing of 40 000 private hire drivers will now complete the final stage of this process. The 2005 launch of a text service CABWISE allows people to use their mobile phones to text 'HOME' to 60835 and receive the numbers of licensed minicab and black cab firms in the area from which they are texting.

## **Sustainable transport innovations**

There is a long list of reasons why London can claim to be doing more on sustainable transport than any other region of the UK. However, many of the most radical and cutting edge projects are either being consulted upon or at pilot stage. These will be the schemes which will make London a world leader in sustainable transport. They can be divided into four areas:

- 1) Traffic reduction
- 2) Climate change and emission reduction
- 3) Transport infrastructure
- 4) Road Safety.

### **1) Traffic reduction**

TfL want to pilot a satellite based system of road pricing in London. The Government have a timetable of introducing road pricing from 2014 onwards. TfL are promoting a bill through Parliament to enable them to introduce a tag and beacon system in certain areas, such as bridges, tunnels and town centres.

If the town centre pilots of the Travel Demand Management approach are successful then this will be applied across all ten 'town centres' in London. The aim of this approach is to apply all the various measures in a concentrated way, including:

- school travel plans;
- workplace travel plans;
- car clubs;
- cycle training and improved facilities;
- personalized advice on travel habits and options.

It is hoped that Travel Demand Management will eventually reduce traffic in London by 8% or more as it encourages modal shift towards more sustainable forms of transport. This approach will be particularly important in outer 'suburban' London, where improvements to the public transport system are going to take longer to get established.

### **2) Climate Change and emission reduction**

The Mayor's aim is to reduce London's carbon emissions by 20% by 2020, rising to 60% in 2050, levels which are in line with the Government targets.

The Congestion Charging area will be doubled in size in February 2007, when it is expanded to cover Kensington and Chelsea.

The Mayor will be consulting Londoners on a new proposal to discourage cars producing high levels of CO<sub>2</sub> emissions by charging higher fees for more polluting vehicles. Low CO<sub>2</sub> cars will be charged less than the current £8 fee, whilst the biggest polluters could be charged up to £25 for entering central London.

The Low Emission Zone will effectively ban the most polluting lorries from London. From 2008 diesel lorries, coaches and buses that fail to meet minimum standards (Euro 3) for particulate emissions will have to pay a large daily charge, which will be between £100-£200. This will then be extended to lighter lorries and mini buses by 2010. Lorries, coaches and buses could then have tighter standards (Euro 4) in 2012.

Taxis are currently estimated to be responsible for 18 per cent nitrogen oxide (NOx) and 34 per cent particulate matter (PM10) of road transport emissions in central London. The Mayor has decided that by July 2008, all taxis in London will be required to be of Euro 3 standard for NOx and PM10.'

London's 8,000 buses will all become hybrids in future years. Different types of buses are currently being piloted in London and once they are 'approved' by TfL for regular use, the aim is to have all replacement buses purchased in London being hybrids – 500 a year. The Mayor has made clear that once a manufacturer has won approval for their hybrid design, then they will win the bus replacement contract until other bus manufacturers start producing hybrids and can compete. An entirely hybrid fleet would produce 200,000 fewer tones of carbon each year.

The procurement process for the expansion of hydrogen buses and other vehicles is placing more emphasis upon the link with the local production of hydrogen. A report commissioned for the Mayor shows that the entire bus fleet could be powered from the methane/hydrogen produced by waste in London. The Mayor's responsibilities for waste and recycling in London make this an obvious link up.

### 3) Transport infrastructure

The aim of the 100 public spaces program is to create exemplary public spaces such as Trafalgar Square, where the Mayor paved over the road dividing the square and the National Gallery. Much of this involves pedestrianisation and/or reclaiming the space from vehicle traffic. 24 projects have been launched since 2002 and ten more are planned for the next couple of years.

TfL are currently considering major re-designs of 12 of the 15 largest one way systems in London. Many of these could become two way roads again, which would benefit cyclists and deal with the problems of local community severance. This happened with the Shoreditch one way system on the borders of the Congestion Charge area.

The East London Line Extension (ELLX) will link many areas of North East London covered by the rail system, with the tube network. The ELLX costs around a £1 billion and is the first stage of plans for creating an orbital rail system. This is important as radial travel by rail into and out of London is quite well served, but orbital travel by rail in and around London is not. The ELLX is part of the Silverlink service which is being managed directly by TfL. TfL aim to have a metro style level of service provision (i.e. six trains an hour, or a train every 10 minutes or less). Metro services usually serve all stations. At this frequency passengers do not need to worry about timetables, they can just turn up and go. London Underground provides metro frequency services on almost all of its lines in London and TfL are aiming to use their influence on the train operator franchise process to establish this across the whole of the London rail network.

Water freight is taking lots of small steps in the right direction. TfL should get to the point within the next year of identifying the scale of investment needed to maximise freight traffic on the canal system and to have a sense of where the money could come from. However, we do recognize that 2m tonnes of freight off the roads every year is not going to be a big hit, when London freight is due to increase from around 140-150m tonnes to 155-170m tonnes.

One useful innovation is putting waste onto canal vehicles - trials start in Hackney/Haringey in November. Trials elsewhere have shown a 20-25% reduction in operating costs for local waste operators and a similar saving in CO2 emissions.

#### 4) Road Safety

The pilot of speed limiter technology in London could lead to it being installed on buses, taxis, mini cabs and other public service vehicles. The aim is to create a critical mass of vehicles which are traveling at, or below, the legal speed limit in London, so that all other vehicles are forced to do the same.

Money for 20mph zones has been increased. These zones both reduce road casualties and the fear of road danger. There is a pilot of camera enforcement of 20mph zones in residential areas, using technology which measures the speed over the distance, rather than individual points.