

Draft Revised Mayor's Transport Strategy Integrated Impact Assessment: Non-Technical Summary

Report for Transport for London

MVA in Association With ERM and Future Inclusion

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mvaconsultancy

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1 Background

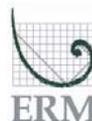
This section introduces the Non-Technical Summary (NTS) of the Integrated Impact Assessment (IIA) Report prepared to accompany the Draft Revised Mayor's Transport Strategy (MTS).

1.1 Background to the IIA

- 1.1.1 In accordance with his statutory duties, the Mayor of London is preparing a revised Mayor's Transport Strategy (hereafter referred to as 'MTS') that will provide strategic direction for transport in London to 2031. The Mayor has delegated authority to Transport for London (TfL) to prepare the Strategy on his behalf. TfL decided to undertake an Integrated Impact Assessment (IIA) to assess relevant considerations and to maximise the contribution which the MTS can make to progressing sustainability¹. The IIA has been undertaken on the contents of the consultation draft of the MTS (the Draft Revised MTS), which will be open to public and stakeholder consultation from 12 October 2009 until 12 January 2010.
- 1.1.2 The IIA integrates the following assessments of the Draft Revised MTS: Strategic Environment Assessment (SEA), Health Impact Assessment (HIA) and Equality Impact Assessment (EqIA). It also includes an Assessment of Economic Impacts (AEI). Community safety, including crime and disorder, is assessed as part of the HIA and EqIA. A Habitats Regulations Assessment (HRA) screening exercise has also been undertaken to determine if there is potential for impacts on the integrity of 'Natura 2000 sites'² potentially affected by the MTS.
- 1.1.3 While the Draft Revised MTS was in preparation, the IIA assessed and influenced the evolution of its collective suite of transport policies and proposals. The assessment focused on how the Draft Revised MTS delivers a high-level strategic direction and policy approach, consistent with the delivery of sustainable transport planning and operation within London. The IIA report also incorporates and integrates assessments covering the Draft Revised MTS proposals for the removal of the Western Extension Zone (WEZ) of the Central London Congestion Charging Scheme and the deferment of Phase 3 of the Low Emission Zone (LEZ).

¹ The Government's Sustainable Development Policy Statement 'Securing the Future' defines sustainability as a 'goal that will be pursued in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment; and a just society that promotes social inclusion, sustainable communities and personal wellbeing. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible'. The guiding principles are: living within environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; using sound science responsibly. <http://www.defra.gov.uk/sustainable/government/publications/uk-strategy/>

² Natura 2000 is a European network of protected sites which represent areas of the highest value for natural habitats and species of plants and animals which are rare, endangered or vulnerable in the European Community.



1.2 This Report

1.2.1 The IIA Report integrates the requirement for, and components of, an Environmental Report under the SEA Regulations. This Report comprises the Non Technical Summary (NTS) of the IIA. As set out in the SEA Regulations³ Section 12(3) and Schedule 2(10), the NTS must provide a summary of the information provided under paragraphs 1 to 9. This information (as it applies to the Draft Revised MTS), and where the information can be found in this NTS, is set out in the following table:

Table 1: Where to find information in this NTS report

NTS Requirement	Where the Information is provided in this NTS
Outline the contents and main objectives of the Draft Revised MTS	Section 2.1
Explain the relationship of the Draft Revised MTS with other plans, policies and programmes	Section 2.3
Summarise the baseline conditions, including the environmental characteristics of London, concentrating on the current state of the transport environment in London, predicted trends and associated issues	Section 2.3, Table 5
Summarise how the transport environment is likely to evolve without the Draft Revised MTS	Table 5
Summarise the environmental objectives established at European Community or UK level which are relevant to the Draft Revised MTS and how those objectives have been taken into account in the strategy	Section 2.3
Summarise the likely significant short, medium, long term, cumulative and synergistic effects of the Draft Revised MTS on the list of matters in Schedule 2 (a) to (m) of the SEA Regulations 2004	Section 3.1, Section 3.2, Section 3.3 and Table 4
Summarise the measures to prevent or off-set significant adverse effects (if any)	Section 3.4
Summarise the reasons for selecting the Options considered and a description of how the assessment was undertaken including difficulties in terms of gathering information (if any)	Section 2.2
Summarise the monitoring measures	Section 3.5

1.2.2 This NTS report therefore includes a summary of all the information required by the SEA Regulations but has included additional aspects of the IIA, rather than just the SEA elements of the assessment.

³ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment



1 Background

- 1.2.3 This document sets out in Section 2 the background information and context for the development of the Draft Revised MTS which is also summarised in Table 5 at the end of this document. Also included in Section 2 is a summary description of the IIA process and methodology.
- 1.2.4 Section 3 provides the main findings of the IIA, including a description of how the Draft Revised MTS delivers upon the Primary Sustainability Objectives of the IIA. It also presents an account of the scope of the IIA recommendations for mitigation and enhancement measures to enhance the sustainable delivery of the MTS and a comment on the recommended monitoring measures.
- 1.2.5 Section 4 provides an explanation of how the IIA has influenced the development of the Draft Revised MTS to date.
- 1.2.6 Finally details of how to participate in the consultation process are presented in Section 5.



2 Assessment Context and Process

This section explains the context for the IIA. It describes the background to the preparation of the Draft Revised MTS. It summarises the review of both the baseline conditions and the relevant objectives, plans, policies and programmes of international, national and regional bodies, as carried out to support the IIA. It sets out the Assessment process and methodology, including an outline description of the Options considered during the development of the Draft Revised MTS, and assessed in the IIA.

2.1 What is The Mayor's Transport Strategy?

- 2.1.1 The MTS is a statutory document required under the Greater London Authority (GLA) Act 1999 and is the Mayor's strategy that deals with transport. The Mayor has a duty to create a series of strategies covering planning, transport, economic development, environment and climate change (amongst others) that set the strategic direction for policy across London. They provide the policy framework for the future development of London and provide guidance for the London Boroughs and other agencies on the shape and direction of London's spatial, economic, environmental and social development.
- 2.1.2 The MTS describes how the Mayor intends to develop and implement policies and proposals for the promotion and encouragement of safe, integrated, efficient and economic transport facilities and services, to, from and within Greater London. The Draft Revised MTS provides the policy backdrop against which many other organisations make their relevant investment decisions. London Boroughs and persons exercising statutory powers in Greater London must have regard to it. Understanding the future plans for transport infrastructure development and the priorities for the operation and management of transport are critical issues for many businesses and individuals. Long term transport strategies help give confidence to investors about the future sustainable development of London, economically, environmentally and socially.
- 2.1.3 The Draft Revised MTS sets out six "goals" which constitute its defining aspirations, the first five of which link in closely with the IIA assessment objectives. The MTS goals are as follows:

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

2.2 Defining Assessment Options

2.2.1 During the course of the evolution of the Draft Revised MTS, the Draft London Plan and Draft Economic Development Strategy (EDS), there has been an examination of strategic options for alternative spatial patterns of development within London. For the Draft Revised MTS, this has involved assessing the impacts of spatial development options in terms of their transport outcomes.

2.2.2 Three strategic transport policy alternatives ('Options') were put forward for the Draft Revised MTS, with the aim of identifying how best to structure and deliver transport within Greater London in the period to 2031. A preliminary assessment was undertaken of these Options and the outputs of this assessment were used to influence the ongoing development and drafting of the preferred strategy now reflected in the Draft Revised MTS as published for public consultation.

2.2.3 The three preliminary Options were as follows:

Option 1: The 'Do Minimum' option. This followed the current London Plan approach to spatial and land use planning. Option 1 is based on the current MTS and included committed transport investment; that is TfL investment as set out in the current TfL Business Plan to 2017/18 and the rail investment set out in the Government's railway investment programme (HLOS) up to 2014⁴.

Option 2: This Option was also based on the current London Plan approach to spatial and land use planning, and incorporating the drafting of Revised MTS policies and proposals broadly in line with this pattern of development.

Option 3: This Option used an approach to spatial and land use development involving greater emphasis on decentralised development, including strategic intervention in Outer London Development Centres together with the drafting of Revised MTS policies and proposals broadly in line with this pattern of development.

2.2.4 Option 1 was discarded as not addressing the likely transport needs of Greater London over the period of the Draft Revised MTS. TfL undertook transport modelling and reviewed other available evidence to measure and compare the relative performance of Options 2 and 3. This review used transport modelling data and other information for 2026, using the best available data at that time. The review provided an understanding of the likely outcomes of pursuing the Options and how these would address identified transport needs. This included consideration of the interim findings of the Outer London Commission⁵.

2.2.5 There were aspects of both Options which had merits in terms of meeting the aspiration for sustainable transport planning and operations across Greater London and the IIA Assessment Framework objectives. These aspects influenced the development of the Preferred Option, which comprises the Draft Revised MTS. During the period when the Preferred Option was being developed, new population and employment data to 2031 were provided by GLA. Modelling was therefore undertaken of a TfL Reference Case and the Preferred Option with

⁴ It includes retention of the WEZ within the congestion charging zone and the continued implementation of the LEZ (including Phase 3 in October 2010).

⁵ See website for outerlondoncommission.org

these new data. For this reason the TfL Reference Case Forecast, which had more up-to-date population and employment figures, has been used as the basis for comparison for the Preferred Option. The process of drafting and refining the Preferred Option has been influenced by the IIA, through a systematic process of ongoing engagement between the IIA team and MTS drafting team.

2.3 Setting the Context for Assessment

Baseline Conditions

- 2.3.1 In order to provide a basis for comparison, the IIA has identified the baseline conditions which would prevail in the absence of the Draft Revised MTS, up to the planning horizon of 2031. The baseline includes the investment planned in the TfL Business Plan to 2017 and the Government's rail investment programme⁶ to 2014. The baseline situation forms the foundation for analysing the possible effects of implementing the Draft Revised MTS.
- 2.3.2 The future year baseline comprises quantitative projections in part based on data from the transport modelling which TfL has undertaken to support the preparation of the Draft Revised MTS. The outputs from the transport model have also been used by TfL to estimate future accessibility levels and climate change emissions which have also been used in the IIA.
- 2.3.3 In brief, the baseline conditions reflect the significant challenges created by projected increases in London's population and employment. Accessibility to employment, education, training, healthcare and other services is predicted to be uneven, with poor accessibility experienced by some of those who are disadvantaged through disability and poverty. This is predicted to persist in the absence of the MTS. The imperative to reduce the carbon footprint from transport use in London provides a further challenge, noting the Mayoral target to reduce London's total CO₂ emissions by 60 per cent from 1990 levels by 2025.
- 2.3.4 During the period when the Preferred Option was being developed, new population and employment data to 2031 were provided by GLA. Modelling was therefore undertaken of a TfL Reference Case and the Preferred Option with these new data. The TfL Reference Case differed from Option 1 in that the Western Extension Zone was excluded. Whilst Option 1 could still have been taken as a basis for comparison, it was decided that the updating of population and employment forecasts was of greater strategic importance than the exclusion of WEZ, which was known to have only a limited effect on London-wide transport and environmental outcomes. Appendix E is devoted to assessment of the WEZ. For this reason the TfL Reference Case Forecast, with more up-to-date population and employment figures, has been used as the basis for comparison for the Preferred Option.

Review of Policies and Plans

- 2.3.5 The MTS may influence and be influenced by a wide range of policies, plans, and programmes, and the sustainability objectives of other international, national and regional and bodies. The context for the IIA is to provide an overarching, holistic approach to assessing the potential impacts of the Draft Revised MTS and the contribution it can make to sustainable transport planning and operations in Greater London. An important aspect of the

⁶ Referred to as the "High Level Output Statement" or HLOS – see DfT website for further details.

IIA has therefore been identifying the international, national, regional and Mayoral policies, plans and programmes and sustainability objectives that could influence or set a context for the preparation of the Draft Revised MTS.

2.3.6 The IIA review of policies, plans and programmes has influenced the preparation of the Draft Revised MTS through the following means:

- Influencing the content of the Draft Revised MTS policies and proposals by reference to relevant strategies and their respective goals;
- Providing a context or checklist of the varied ways (and issues arising) in which transport impacts upon sustainable economic, environmental and social development;
- Identifying issues and outcomes which the Draft Revised MTS should explicitly seek to address and deliver.

The last issue, in particular, has been an important function served by the IIA in the preparation of the Draft Revised MTS.

2.3.7 Table 5 at the end of this document provides a summary of the baseline conditions in the absence of the Draft Revised MTS and includes brief descriptions of the sustainability issues emerging from this analysis and from the review of policies, plans and programmes.

2.4 Assessment Methodology

2.4.1 Assessment objectives and an Assessment Framework have been used to assess the performance of the Draft Revised MTS in terms of its sustainability. In this way the IIA considers whether and how the Draft Revised MTS addresses the challenges that must be met to achieve sustainable transport planning and provision within Greater London in the period to 2031.

2.4.2 An assessment objective in this context is a policy aspiration, specifying a desired direction of change. The Assessment Framework uses six headings under which Primary and Secondary assessment objectives are structured. These objectives are set out in the main IIA Report in Chapter 5. The six IIA Assessment Framework headings are as follows:

- To contribute to and facilitate more sustainable and efficient economic progress⁷ within London;
- To enhance equality and actively mitigate the barriers to this;
- To contribute to enhanced health and wellbeing for all within London;
- To promote safety and security for all working, travelling and using London's transport services and facilities;
- To contribute to the mitigation of, and adaptation to, climate change; and
- To protect and enhance the physical, historic, archaeological and socio-cultural environment and public realm.

⁷ Sustainable economic progress is taken in its widest sense and not just as measured in GDP or GVA indicators.

- 2.4.3 The IIA assessment of the Draft Revised MTS through the Assessment Framework has been primarily qualitative; however quantitative analysis has also been undertaken, in particular, using TfL’s model estimates to provide predictions of impacts where appropriate. As explained in the main IIA report and its Appendix D, comparison of the performance of Options 2 and 3 was assessed against Option 1, using modelling data to 2026. The assessment of the Preferred Option had the benefit of more recent projections of population and employment through to 2031 and was compared to a TfL Reference Case Forecast. In addition more detailed assessments of two specific proposals, the removal of WEZ and the deferment of LEZ Phase 3, have also been undertaken, and these findings contribute to the overall assessment of the Draft Revised MTS. These assessments are given in Appendices E and F of the IIA report.
- 2.4.4 The significant effects of the Options have been reported in terms of a scale of magnitude, from ‘strong positive’ to ‘strong negative’, as shown in the Table below. All impacts which are greater than neutral or uncertain are taken to be significant, although different impacts have different levels of significance.

Table 2: Terms used in Assessment

Nature and Magnitude of Significant Impact	Colour and Assessment Code	Description of Impact
Strong positive	✓✓	A positive impact of moderate to major magnitude
Positive	✓	A positive impact of minor to moderate magnitude.
Neutral	---	An impact where no change from the current situation is expected.
Uncertain	?	Where uncertainty exists as to the overall impact – or – there are both positive and negative impacts.
Negative	X	A negative/adverse impact of minor to moderate magnitude.
Strong negative	X X	A negative/adverse impact of moderate to major magnitude.

3 Assessment Findings

This section presents the main findings of the IIA in terms of how the Draft Revised MTS delivers the primary objectives of the IIA Assessment Framework. The section also presents the scope of the IIA recommendations for mitigation and enhancement measures to enhance the sustainable delivery of the MTS. Finally it provides comment on recommended monitoring measures.

3.1 Overview

3.1.1 The overall performance of the Draft Revised MTS, against each of the primary objectives of the IIA Assessment Framework, is as follows:

Table 3: Summary of Draft Revised MTS Performance against IIA Criteria

How the Draft Revised MTS Performs	Overall Performance of Draft Revised MTS against Headline Primary Assessment Objective of the IIA
✓	Primary Objective A - To contribute to and facilitate sustainable and efficient economic progress within London Overall significance of impact: Positive and of minor to moderate magnitude.
✓✓	Primary Objective B - To enhance equality and actively mitigate the barriers to achieving equality and inclusion Overall significance of impacts: Positive and of moderate to major magnitude.
✓	Primary Objective C - To contribute to enhanced health and wellbeing for all within London Overall significance of impacts: Positive and of minor to moderate magnitude.
✓	Primary Objective D - To promote safety and security for all working, travelling and using London transport services and facilities Overall significance of impacts: Positive and of minor to moderate magnitude.
✓	Primary Objective E - To contribute to the mitigation of and adaptation to climate change Overall significance of impacts: Positive and of minor to moderate magnitude.
✓	Primary Objective F - To protect and enhance the physical, historical, archaeological and socio-cultural environment and public realm Overall significance of impacts: Positive and of minor to moderate magnitude.



3.2 Summary of how the Draft Revised MTS delivers the Primary Objectives of the IIA

3.2.1 The tables below summarise the ways in which the primary objectives have been met by the Draft Revised MTS.

Table 4a: Primary Objective A - To contribute to, and facilitate, more sustainable and efficient economic progress within London

✓	<p>Overall significance of impacts: Positive and of minor to moderate magnitude.</p> <ul style="list-style-type: none"> ■ The increases in population and employment to 2031 are expected to increase the demand for travel and in the absence of the MTS crowding and congestion are likely to increase. The Draft Revised MTS contains policies to make more efficient use of the highway network, increase public transport provision and encourage greater use of sustainable modes through smarter travel. The Preferred Option is expected to reduce vehicle trips by 3% and congestion by 3%, compared to the Reference Case. The increase in public transport provision is expected to reduce crowding levels by 36% compared to the Reference Case (42% from their current level), encouraging economic activity from increased connectivity, and also increasing ease of access to jobs and training. ■ Policies to support transfer of freight transport from road to rail and water are promoted to secure improved efficiency and more sustainable distribution networks. The proposal for freight quality partnerships to promote servicing and delivery plans also holds out the prospect of the achievement of local improvements in goods delivery and local environmental protection. ■ The transport schemes in the Draft Revised MTS will also help to boost employment within London (e.g. 14,000 Crossrail jobs) and provide an opportunity for skills training. ■ Improving the economy has knock-on effects to health and wellbeing. Supported by appropriate and targeted economic development policies, economic growth should also assist in tackling inequality, deprivation and regeneration, assisting both individuals and businesses, and achieving the social and economic benefits which accompany this. The Draft Revised MTS has provided an appropriate platform with which to facilitate transport's role in delivering this.
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3.2.2 An efficient transport system is a necessary but not sufficient condition for achieving a strong economy. Generally transport represents only a small proportion of business costs, but its perceived importance is often rated highly by business leaders and organisations. The Draft Revised MTS provides good support for the London economy, very much in line with the recommendations of the Eddington Report on transport and the economy which identified improving links to international gateways and reducing congestion in urban areas as being important targets to support the national economy. Explicit attention is given to the capacity and connectivity of key employment locations such as central London and the metropolitan centres of Outer London. The Draft Revised MTS also seeks to reduce traffic congestion and peak period crowding on public transport, improving journey reliability and network resilience, features particularly sought by the business community. The application of leading edge transport technologies in London should develop skills and create business opportunities. Efficient distribution of freight is promoted by measures for roads, rail and waterways.

3.2.3 In delivering the policies and proposals of the Draft Revised MTS, it is important that TfL works closely with other stakeholders including the Boroughs, the GLA and LDA and business, community and voluntary organisations, and that this engagement is influenced by both the Draft Revised MTS and the Draft London Plan and EDS. In particular the contribution of the public, private and voluntary sectors to the economy should be recognised. For example, wider social sustainability is promoted by helping those not currently in work to become economically active, thereby improving London's economic performance and reducing welfare dependence. Hence the priority afforded to proposals to support regeneration of deprived communities should be kept under review.

Table 4b: Primary Objective B - To enhance equality and actively mitigate the barriers to equality

✓ ✓	<p>Overall significance of impacts: Positive and of moderate to major magnitude.</p> <ul style="list-style-type: none"> ■ Overall the Draft Revised MTS aims to enhance equality and inclusion and seeks to mitigate actively many of the practical and perceived barriers to travel. In particular, enhancing inclusion for deaf, disabled and older people, and enhancing access to opportunity for those experiencing socio-economic disadvantage are positive effects. ■ Improving the inclusivity of the transport system, through improving the physical accessibility, the provision of information, the attitudes of transport staff and travellers and the cost of travel will help to remove barriers to accessibility. ■ Reducing crime and fear of crime, which affects some equality groups more than others, for example hate crime, will also increase accessibility to and inclusiveness of the transport system. ■ Improving transport conditions in areas of deprivation is expected to have a positive impact on removing inequalities. ■ Proposals to promote the use of walking and cycling are expected to assist those who are less able to afford public and private transport. ■ Engagement with different groups of people throughout the course of the preparation and implementation of Draft Revised MTS policies and programmes will help to ensure that the needs of different groups are being taken into account. ■ The Draft Revised MTS would be strengthened by further explicit reference to the equality agenda throughout the document, particularly where policies are likely to have disproportionate impacts on specific groups of people.
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3.2.4 It is a legal requirement that the Draft Revised MTS should include proposals for providing transport that is accessible to mobility impaired people. However, there are a wide variety of other non-physical barriers to transport use that can prevent different people from participating fully in society including, for example, affordability, access to and understanding of information and apprehension about encountering anti-social behaviour. The Mayor's Equality Framework "Equal Life Chances for All" seeks to ensure that equality considerations are taken into account in all decisions – the principle of "mainstreaming". The Draft Revised MTS has established a high level goal to improve transport opportunities for all Londoners



which encompasses this wider definition of inclusivity. However, there is still opportunity to further mainstream equality and inclusion, particularly through the delivery of the Draft Revised MTS at sub-regional and local levels.

Table 4c: Primary Objective C - To contribute to enhanced health and wellbeing for all within London

✓	<p>Overall significance of impacts: Positive and of minor to moderate magnitude.</p> <ul style="list-style-type: none"> ■ The Draft Revised MTS recognises the importance of the role which transport plays in enhancing health and wellbeing. This policy approach is predicated upon the growing recognition of the role of transport services and infrastructure have not just within the physical and socio-cultural environment of which it forms a part, but in relation to its contribution to the general quality of life, and specifically health and wellbeing. ■ The Draft Revised MTS includes a number of measures to improve health and wellbeing for Londoners, notably through measures to improve air quality, reduce noise, increase levels of physical exercise and promote regeneration through improving streetscapes and transport links. ■ Policies to bring about smarter travel, including physical activity, are expected to have a direct positive impact upon health and wellbeing, in particular, upon cardiovascular health and diabetes. <p>Air Quality</p> <ul style="list-style-type: none"> ■ Road transport is a major contributor to emissions of key air pollutants in London, notably PM₁₀ and NO_x. The Draft Revised MTS provides specific measures to reduce these emissions and thereby assist the Mayor in achieving compliance with air quality limit values and also improving the health of Londoners through reduced exposure to these pollutants. ■ Draft Revised MTS and the Draft MAQS will deliver around a 25-30% reduction in PM₁₀ emissions by 2012 and a 60-65% reduction in NO_x emissions by 2015, compared to 2006, from road transport across Greater London. ■ The Low Emission Zone is an important part of the overall strategy for reducing emissions of pollutants, especially PM₁₀. The deferment of LEZ Phase 3 until 2012 defers air quality benefits for two years. This is an adverse effect, although it is assessed as a minor adverse effect because 80-90% of the benefits are expected to be retained, the limited timeframe of deferment, and the role which natural turnover of vehicles and other policies in the Draft Revised MTS will continue to have in promoting reductions in emissions of air quality pollutants. ■ The proposal to remove WEZ is not anticipated to give rise to any significant impact in respect of air quality or its impact upon health and wellbeing. TfL estimates show negligible change in PM₁₀ and NO_x emissions across London as a whole. <p>Noise</p> <ul style="list-style-type: none"> ■ The Draft Revised MTS includes a range of specific measures by which to reduce transport noise. These include measures aimed at embedding noise mitigation
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within scheme developments and operation, and introducing new technology such as quieter buses and service vehicles. Other proposals of relevance include a road maintenance programme to replace road surfaces with low noise road surfacing and use of noise barriers.

- Wider proposed measures to tackle source specific noise emissions, including those related to aircraft, also have the potential to make a positive contribution. The proposal to develop the London Lorry Control Scheme will also assist in targeting noise emanating from freight and commercial use, this addressing another key source of noise emissions which has London-wide application.
- Mitigation and enhancement measures, including protection and enhancement around delivery of new schemes and proposals, are embedded within the Draft Revised MTS. Further opportunities for enhancement are identified within Chapter 7.

Physical Activity and Other Determinants of Health and Wellbeing

- 3.2.5 In terms of health and wellbeing it is now well understood that transport is a major determinant of health, providing access to services, health care, education and employment opportunities, all of which are themselves determinants of health. In addition, social capital⁸ is also recognised as an important determinant of health and a good transport system provides a means of enhancing social capital, by allowing people to meet friends and relatives. Many of these influences on health are difficult to measure and are not directly obvious. Nevertheless, it is likely that, in combination, they contribute to the health status of a population and a transport strategy provides an opportunity to enhance health in the future. This Draft Revised MTS provides a boost to health by improving capacity in London and making the system more efficient. It also sets out to encourage economic development, which has a clear benefit for the health of the wider population.
- 3.2.6 A particular aspect of health that is recognised as being especially significant is physical activity. Increasing levels of physical activity has direct benefits, in terms of reducing obesity and the incidence of related diseases. The Draft Revised MTS has specific measures designed to increase physical activity, notably through the encouragement of walking and cycling as modes of transport.
- 3.2.7 Transport can also exert a stress on health, through the severance of communities, the effect of emissions of noise and airborne pollutants and by causing injury and death in collisions. In contrast to the factors that boost health, these adverse consequences are very visible and quantifiable. The Draft Revised MTS has specific measures and proposals that will reduce these adverse impacts of transport.

Air Quality

- 3.2.8 Air quality is a prominent health issue for London and road transport in particular is a major contributor to emissions of the key pollutants. The Draft Revised MTS, along with the Draft Mayor's Air Quality Strategy (MAQS), is an opportunity to improve tangibly air quality over the next twenty years, with associated health and environmental benefits. There are two

⁸ Social cohesion and personal engagement in community networks, active citizens.

principal ways in which the Draft Revised Strategy will reduce emissions and improve air quality.

- 3.2.9 Firstly, it will seek to reduce the distance travelled by vehicles on the road network. Secondly, it will promote and facilitate the accelerated uptake of vehicles into the fleet that have reduced emissions per vehicle. In particular, the Draft Revised MTS will facilitate the introduction of electric vehicles. The accelerated introduction of cleaner vehicles into the vehicle fleet has already been initiated through the introduction of the Low Emission Zone and the strategy provides for further initiatives of this kind in the future, targeted at locations where air quality is especially poor.
- 3.2.10 The problem of improving air quality is a hard one to solve and it will require substantial and concerted measures to drive down concentrations of the key pollutants to levels that are compliant with air quality standards in all locations. Recent history has demonstrated that concentrations of some pollutants remain stubbornly high, despite substantial reductions in emissions.
- 3.2.11 There is a clear benefit to reducing airborne concentrations of pollutants. It is widely understood that the population's health status improves with reductions in exposure to pollutants regardless of the absolute value of the concentration. By 2031, the anticipated reductions in concentrations of pollutants such as PM₁₀ and nitrogen dioxide (NO₂) will have contributed to worthwhile health improvements, as measured by loss of life years and hospital admissions.

Noise

- 3.2.12 In recent years the health effects of noise have become better understood, although there remain great uncertainties in terms of many aspects of noise and health. Health impact assessments now routinely quantify community annoyance, sleep disturbance and effects on children's learning and there is growing evidence of other effects linked to stress including cardiovascular disease and hypertension. Environmental noise therefore affects the wellbeing of great numbers of people in London. Major roads pass through communities throughout London, and it is possible that there are inequalities in noise exposure. While some people choose to live in locations with high noise levels, others such as individuals who are placed in social housing, for example, may live in areas with high noise levels without choosing to do so.
- 3.2.13 There are elements of the Draft MTS which address noise-related health inequalities, primarily through considering the use of noise reduction measures for the noisiest residential areas. The Draft Revised MTS also includes a range of specific measures by which to reduce transport noise. This has the potential to make a tangible contribution to tackling noise in specific areas within London, and across London generally. In turn, this has the potential to make a positive contribution to enhanced health and wellbeing, in particular, for those communities surrounding noise 'hotspots' and by generally reducing the exposure of London's population to particular sources of noise, and ambient noise more broadly.

Table 4d: Primary Objective D - To promote safety and security for all working, travelling and using London's transport services and facilities

✓	<p>Overall significance of impacts: Positive and of minor to moderate magnitude.</p> <ul style="list-style-type: none"> ■ Transport Safety and Security is one of the six identified major challenges facing the transport system and, as such, safety and security are afforded a very high priority in the Draft Revised MTS. ■ Within the Draft Revised MTS there is a strong positive emphasis on improving both road and public transport safety in London. ■ Similarly the high profile positive policies aimed at reducing crime and fear of crime on the transport system will help to increase the accessibility and inclusiveness of the transport system. ■ Some of the policies in the Draft Revised MTS have the potential to increase road casualties, for example encouraging walking and cycling increases the exposure to risk of accidents for those road users, and measures identified to mitigate casualties are of increased importance. ■ The Draft Revised MTS includes plans to prepare for major incidents, responding to changing risks and threats, but delivery should also ensure consideration of the specific needs of different equality groups in these plans (e.g. deaf, disabled and older people during emergency evacuations).
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- 3.2.14 Achieving a safe transport system is an element of the Mayor's overarching vision for London as set out for the Draft London Plan, Draft EDS and Draft Revised MTS. Ensuring the safety and security of all Londoners is also one of the six identified major challenges facing the transport system. These issues have been given a high profile by the Mayor and hence safety and security are afforded a high priority in the Draft Revised MTS.
- 3.2.15 The policies and proposals to improve safety on roads and public transport and tackle crime and fear of crime on or near the transport system have merit in their own right. Additionally they contribute significantly to the achievement of other goals including health and wellbeing and addressing social inequality.
- 3.2.16 Within this strong context set out in the Draft Revised MTS there are some minor concerns that will need to be taken into account during the delivery of the Draft Revised MTS proposals. Policies to increase walking and cycling will inevitably increase the exposure to accident risks for these modes and pedestrians and cyclists are inherently more vulnerable to injury in any collision with motorised vehicles. The needs of disabled people need to be recognised when designing changes to the public realm, and when considering emergency procedures in the case of service interruptions, for whatever cause. Continued engagement with representatives of user groups, disabled people and ethnic minorities should help to ensure effective and inclusive delivery.

Table 4e: Primary Objective E - To contribute to the mitigation of and adaptation to climate change

✓	<p>Overall significance of impacts: Positive and of minor to moderate magnitude.</p> <ul style="list-style-type: none"> ■ The integration of transport and land use planning will help deliver sustainable transport outcomes. The Draft Revised MTS will promote more sustainable travel patterns through the suite of smarter travel initiatives. It will also reduce the need to travel in the longer term through enhanced and localised provision of services, employment and housing. These measures should reduce vehicle-kilometres on the highway network, thereby reducing emissions. ■ The Draft MTS also proposes positive measures to accelerate the introduction of vehicles with lower carbon dioxide (CO₂) emission rates into the London vehicle fleet. ■ Overall the Draft Revised MTS is predicted by TfL to reduce CO₂ emissions in 2031 by 17% compared to the Reference Case. ■ The dual emphasis upon mitigation and adaptation measures is central to effective planning in this context. Integration between the measures identified within the Draft Revised MTS and the forthcoming Climate Change Mitigation and Energy Strategy (MCCMES) is important. ■ Enhancement measures such as risk assessments and carbon footprinting analysis has already been embedded within the Draft Revised MTS. Opportunities for further enhancements are identified in the full IIA.
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- 3.2.17 Climate change is the single greatest long term problem faced by the population of London and the Draft Revised MTS has an important role in reaching the Mayoral long-term target of a 60% in CO₂ emissions by 2025 and in adapting to the inevitable climate change that will occur up to 2031 and beyond.
- 3.2.18 The Draft Revised MTS explains how the carbon footprint of London's road transport will be reduced substantially by a number of measures designed to reduce vehicle use and replace the use of fossil fuels, up to the period 2031. These measures will 'lock in' this reduction for the future.
- 3.2.19 The Draft Revised MTS also sets out a number of measures that will be taken to increase the transport system's resilience to climate change so that it is able to withstand the effects of higher temperatures in summer and the extreme rainfall events that will be a feature of London's climate by the end of the time horizon for this strategy.
- 3.2.20 Good planning for these changes is essential to ensure that the measures are implemented in good time and at least cost. The proposal to prepare adaptation strategies are valuable and will reduce the scale of future impacts to infrastructure and transport users. Reacting late to climate change will be less effective and more costly. The Draft Revised MTS, by including such early measures, sets out a positive platform which can be built upon in conjunction with the forthcoming MCCMES.

Table 4f: Primary Objective F - To Protect and Enhance the Physical, Historical, Archaeological and Socio-cultural Environment and Public Realm

✓	<p>The overall impact is expected to be positive and minor to moderate in magnitude.</p> <p>Built Environment</p> <ul style="list-style-type: none"> ■ The Draft Revised MTS recognises the important role that it can play in protecting and enhancing built heritage and streetscape by inclusive design, improving the layout of streets, in particular by providing clear, easily understandable routes and balanced streets, taking into account local context and the needs of those using the transport network. <p>Historic and Archaeological Environment</p> <ul style="list-style-type: none"> ■ The policies and proposals described in the Draft Revised MTS to enhance the built environment and streetscape recognise the importance of heritage and cultural context and the enjoyment that Londoners and visitors derive from them. Its policies and proposals will also make it easier for people to access and enjoy areas which are important for their heritage. <p>Natural Environment, Biodiversity</p> <ul style="list-style-type: none"> ■ The Draft Revised MTS includes a specific policy to work with other agencies and stakeholders to make the most of open spaces across the transport system to improve the quality and diversity of London's natural environment. ■ As recognised by the Draft Revised MTS, the delivery of new proposals and schemes should be undertaken in accordance with the established practice of due consideration of impacts to the physical, socio-cultural and historical environment. Assessment will be undertaken at appropriate stages and should reaffirm the importance of the integrity of designated sites (as per the HRA Directive), but also non-designated assets such as streetscapes and the general public realm. <p>Resource Management</p> <ul style="list-style-type: none"> ■ The Draft Revised MTS is looking to achieve greater use of Smarter Travel Options, to reduce the need for travel and to reduce journey distances in London, and to encourage walking, cycling and public transport use, all of which will make a contribution to more efficient sustainable resource use. ■ It is also anticipated that policies in the Draft Revised MTS and investment in new public transport brought about by the Draft Revised MTS will contribute to regeneration in areas of relative deprivation, so helping to bring brownfield sites back into active use. It is considered that this will make a contribution to more efficient and sustainable resource use.
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3.2.21 With respect to the built, historic and natural environment, the Draft Revised MTS is expected to make a positive contribution. Achieving bold improvements to London's street spaces is stated as one of the Mayor's priorities and the Draft Revised MTS includes specific policies to support this. It is anticipated that the proposals in the Draft Revised Strategy, which will implement TfL's 'better streets' approach, will serve to enhance the setting of

historic structures and areas and will contribute to an improved public realm. This in turn is expected to contribute to bringing communities together, encouraging physical activity, and attracting business and employment to those areas.

- 3.2.22 The Draft Revised MTS, through a specific policy provision, will also ensure that opportunities are taken to enhance biodiversity in open spaces across the transport system. In terms of implementing and delivering these policies, the Draft Revised MTS recognises the importance of working closely with other organisations such as the boroughs and other transport operators to achieve the desired outcomes.

3.3 Cumulative/Synergistic Impacts

- 3.3.1 There are expected to be positive cumulative effects from wider strategic delivery, in particular, the joint effects of the Draft London Plan and Draft EDS in conjunction with the Draft Revised MTS. Changing patterns of land use development contained in the Draft London Plan will complement the proposals contained in the Draft Revised MTS. Investment in job creation and training described in the Draft EDS will bring changes in employment to be served by the proposals of the Draft Revised MTS. For example new development should achieve more sustainable transport performance than previously established land uses.
- 3.3.2 Collectively, there is expected to be significant positive cumulative effects from the promotion and incentivisation elements of the Draft Revised MTS where people will be encouraged to choose more sustainable patterns of activity and travel – to live and travel smarter. When combined with improved sources of information on which to make these choices in real time, significant cumulative effects are anticipated.
- 3.3.3 The role of the Draft MAQS and the forthcoming MCCMES will also be critical in providing a strong overarching strategic context for transport's contribution to improving air quality and tackling climate change.

3.4 Temporal Impacts

- 3.4.1 The timescale for the Draft Revised MTS is up to 2031. It is important to bear in mind that the Draft Revised MTS is being implemented against a backdrop of ongoing strategic activity and in the context of certain initiatives already in place; the Draft Revised MTS is not, therefore, 'starting from scratch'. The potential exists, therefore, for certain predicted impacts to emerge early in the timetable of Draft Revised MTS implementation, a prime example of this being the drive for a modal shift away from car use through increasing the uptake of cycling and walking amongst Londoners.
- 3.4.2 The Draft Revised MTS contains a detailed overview of the timetable for implementation of proposals and schemes. Delivery has been phased into short, medium and longer term implementation stages with specific measures included under the respective headings. These phases are then sub-divided into respective modes including rail, Underground, bus, river and roads. This provides the reader with a useful guide to assess when the projected introduction of specific proposals is envisaged. Again self-evidently, short-term proposal implementation has the potential to deliver projected benefits rapidly, these being built upon through the subsequent phased delivery of schemes and proposals.

3 Assessment Findings

- 3.4.3 It is important to note that the phased delivery of the proposals identified is dependent upon funding provision and, therefore, whilst certain stakeholders may wish to see specific proposals brought forward, this is not always financially feasible. The suite of schemes identified under the 'short term' phase, however, does include measures across all modes, providing wide-ranging positive impacts. Equally importantly, it is apparent under the 'short term' phase that initiatives which potentially require the longest timeframe to generate significant benefit should be begun early in the delivery programme.

3.5 Summary of Findings

- 3.5.1 The Draft Revised MTS provides a clear strategic direction and framework for facilitating delivery of a more sustainable transport network, as articulated in its opening sections. It therefore progresses sustainability in line with the review of identified issues, DfT's Delivering a Sustainable Transport System (DaSTS) report and UK sustainability policy more broadly. By taking the framework of DaSTS and applying this within the specific context of London, the Draft Revised MTS facilitates a strategic approach that addresses the challenges facing London's transport network and its users.

3.6 Recommended Measures

- 3.6.1 The Draft Revised MTS has set out a strong vision for progressing sustainable transport planning and operation within London. Central to the efficacy of this vision is the manner within which the Draft Revised MTS is implemented – the need for integrated delivery being as critical as integrated policy development in this respect. Chapter 7 of the IIA Report identifies those measures which are considered necessary to guide implementation of the Draft Revised MTS and maximise the sustainability of what it achieves through further mitigation or enhancement measures.
- 3.6.2 Mitigation can take different forms, but the main way in which mitigation has been applied is by identifying potential impacts at an early stage so that relevant policies or proposals can be revised in the drafting process so as to mitigate the potential impact. This is known as 'embedded' mitigation. Residual adverse impacts may require further mitigation if impacts are to be offset completely. Enhancements seek to maximise the positive sustainability outcomes of the MTS through exploiting policy and programme synergies.
- 3.6.3 In line with SEA Guidance, the IIA therefore highlighted scope for further opportunities in respect of mitigation or enhancement measures, to enhance delivery of the central vision and principal goals. These 'recommendations' relate to the following issues:

Mitigation

- Air Quality
- Decarbonised Electricity
- Smoothing Traffic, Road Network Development and Parking Control
- Riverscapes and the Blue Ribbon Network
- Additional Airport Capacity

Enhancements

- Integrated Delivery
- Implementation Plan
- Governance at Sub-regional and Local Level
- Stakeholder Engagement
- Future Technological Developments
- Developing a Health Plan for Transport
- Mainstreaming Equality and Inclusion
- Demand Management Measures
- Reducing Welfare Dependence
- Sustainability Reporting
- Monitoring of New Initiatives

3.7 Monitoring and Implementation

- 3.7.1 Monitoring is an important mechanism for ensuring that implementation of policies and proposals is consistent with the sustainability aspirations of the Draft Revised MTS. The SEA Regulations state that monitoring must be undertaken of the likely significant environmental effects of the implementation of plans and programmes in order to identify unforeseen negative effects at an early stage and be able to undertake appropriate remedial measures. In the IIA Report, in line with the integrated approach to impact assessment, these objectives include all aspects of sustainability: environmental, economic and social.
- 3.7.2 TfL already undertakes substantial monitoring and reporting of transport system performance and has included within the Draft Revised MTS its further proposals for monitoring outcomes. As part of the IIA process these proposals have been reviewed to ensure they are both adequate and appropriate to progressing sustainability. The IIA has identified, where appropriate, further suggestions for how these indicators might be amended to better reflect sustainability principles. These included greater use of TfL's ATOS model to measure accessibility to opportunities, particularly with respect to areas of deprivation, and inclusion of indicators on affordability and public transport safety.
- 3.7.3 The IIA also recommended detailed monitoring of the impacts of innovative measures such as the proposed initiatives on traffic smoothing, cycling and walking.



4 Influencing the Evolution of the Draft Revised MTS

This section describes how the IIA has influenced the evolution of the Draft Revised MTS to-date and the role of engagement with wider stakeholders in this process.

4.1 How the IIA Process Has Influenced the Development of the Draft Revised MTS To-Date

4.1.1 From the outset, the IIA has sought to actively influence the drafting of the Draft Revised MTS, in order to enhance the sustainability outcomes of the MTS. To facilitate this, there has been close and ongoing interaction between the TfL MTS drafting and IIA teams, with the aim being to provide continuing review and advice on the sustainability of the Draft Revised MTS policies and proposals in preparation.

4.1.2 The central components of the interrelationship between the IIA and the preparation of the Draft Revised MTS were:

- Early engagement between the IIA and MTS drafting teams to determine the issues and challenges for progressing sustainable transport planning and development in Greater London;
- Workshops undertaken jointly with the MTS drafting team to provide feedback and review on policy direction and the development of proposals;
- Written feedback on iterations of the MTS from 'Working Groups' and preliminary assessment of the Draft Revised MTS;
- Ongoing review of iterations of proposed sections of the Draft Revised MTS and meetings between relevant policy drafters and the IIA team; and
- IIA personnel sitting in house with the MTS team to input into the drafting of the strategy and ensure ongoing liaison between TfL MTS drafting and IIA teams.

4.2 Stakeholder Consultation Undertaken during the IIA

4.2.1 Stakeholder engagement has been carried out alongside the evolution of the Draft Revised MTS, to inform its development. The activities undertaken to date, and the ways in which these have influenced, and continue to influence, the MTS drafting process, are as follows:

1) Statutory Consultation

There are two prescribed periods of formal consultation in the IIA process; the first was a consultation period of five weeks which followed the publication of the Scoping Report to SEA statutory consultees; and the second will be the period of formal consultation following publication of the Draft Revised Mayor's Transport Strategy and the IIA Report. The responses coming from both of these consultation exercises have been and will be taken into account in finalising the Draft Revised MTS. In addition, meetings have been held with

individual representatives of statutory consultee bodies, which have been used to refine elements of the IIA.

2) Selected engagement with wider stakeholders

As well as undertaking formal consultation with statutory consultees (Natural England, English Heritage and the Environment Agency) in compliance with SEA/IIA practice, ongoing consultation has also been undertaken throughout the duration of the IIA. This has included both scheduled meetings/events with stakeholders including the London Sustainable Development Commission (LSDC) and the London Health Commission (LHC). Consultation events were undertaken collaboratively by the MTS consultation team and the IIA team, to streamline the engagement process and capitalise upon joint opportunities, to demonstrate alignment between the drafting of the Revised MTS and the IIA assessment and to avoid consultation fatigue amongst stakeholders.

3) Joint Strategy Engagement

TfL and the IIA team engaged with the GLA teams and LDA teams concerned with making revisions to the Draft London Plan and the Draft EDS on policy development.

This engagement took the form of joint stakeholder workshops held at City Hall:

- Environment and sustainability workshop on 29th June 2009; and
- Social, community and voluntary sector workshop on 2nd July 2009.

4) MTS Team Engagement

The responses to consultation undertaken by TfL on the documents 'Way to Go!' and the 'Statement of Intent' have been taken into account in the preparation of the Draft Revised MTS and in the IIA exercise.

5) Ongoing engagement

TfL has a programme of ongoing engagement with a broad range of stakeholders through both pre-existing mechanisms including the 'Environment Roundtable'⁹ and meetings with disability groups and individual stakeholders. The responses received in this continuing consultation exercises have also been taken into account in the preparation of the Draft Revised MTS and in the IIA exercise.

4.3 IIA Statement

- 4.3.1 It is a requirement under the SEA Directive that a Post Adoption Statement is produced. The purpose of this statement is to demonstrate how the SEA, or in this case the IIA, has served to influence the drafting of the revised MTS.
- 4.3.2 The IIA Statement will be produced after the findings of the twelve week consultation period have been taken into account and the MTS completed. This IIA Statement will meet all the requirements of an SEA Post Adoption Statement but will additionally seek to reflect the wider scope of the assessment, in respect of its coverage of sustainability.

⁹ TfL established mechanism for engagement with Environmental stakeholders.

5 Feedback

This section provides details of where the Draft Revised MTS, IIA Report and NTS can be accessed, and how to participate in the consultation process

- 5.1.1 Copies of the Draft Revised MTS, the IIA Report and the NTS can be obtained from TfL and are available on its website: london.gov.uk/shaping-london.
- 5.1.2 Any comments relating to the findings of the IIA presented in this Report, or the Draft Revised MTS, would be welcomed. Please send all correspondence either to the postal address below or via email to MTS@london.gov.uk:

Mayor of London (Transport Strategy)
PO Box 65064
LONDON
SE1P 5GE

- 5.1.3 The deadline for receipt of comments for consideration is 12 January 2010.



Table 5: Baseline Data

The baseline projections below are in the absence of the Draft Revised MTS (apart from population and employment projections which come from the GLA). (Issues identified in the last column come from both the Baseline Review and Review of Policies, Plans and Sustainability Objectives at International, National and Regional Level)

Baseline Issue	Current Characteristics	Predicted Trends to 2031	Issues Identified
Economic Development and Population Growth			
Population	7.6 million people in 2007	Population expected to increase to 8.9m in 2031	Increase in population will increase demand for travel within London
Employment	4.7 million people in 2007	Number of jobs expected to increase to 5.5m in 2031	Increase in jobs will increase demand for travel within London, particularly during the peak time periods
Road Travel	With around 40% of trips being made by car, there are high levels of road congestion with an estimated delay rate of 1 minute per kilometre due to congestion alone	With an increased population and limited expected increase in highway capacity, there is expected to be an increase in road congestion of 17%, although mode share by car will decrease with increases in public transport capacity and promotion of walking and cycling as part of the TfL Business Plan and HLOS	Increase in road congestion will have adverse effects on economy, with increased journey times and reduced reliability for movements of both staff and goods
Public Transport	Almost a third of all trips in London are made by public transport, with good coverage of bus, Underground and rail routes across London. 55% of Rail/Underground travel in the am peak is in crowded conditions	The public transport mode share is expected to stay more or less static but with predicted increases in public transport capacity by over 30% through the implementation of HLOS and the TfL Business Plan, the levels of Rail/Underground crowding is expected to	Increased capacity and improved connectivity will help to facilitate growth and regeneration



Table 5: Baseline Data

Baseline Issue	Current Characteristics	Predicted Trends to 2031	Issues Identified
		decrease to 50% by 2031 ¹⁰	
Equality			
Inclusivity	<p>There are some Underground and rail stations with step-free access, and all Underground stations have an induction loop and PA systems</p> <p>Journey planner information available by phone and internet</p>	More stations will have step-free access as part of TfL Business Plan	<p>Addressing physical barriers to access: proximity and inclusive design of vehicles and infrastructure</p> <p>Communication and information provision for all</p>
Affordability	Free public transport travel is available for Londoners aged over 60, disabled Londoners, young people aged 18 or under in full-time education and half price travel on buses and trams is available for Londoners on income support	The number of people in groups who are currently eligible for fare discounts is forecast to increase	<p>Addressing affordability barriers to access</p> <p>Role of transport in tackling social exclusion</p> <p>Use of targeted fare concessions to reduce inequalities in income</p>
Health and Wellbeing			
Road traffic	There was an estimated 31.8 billion vehicle kilometres in Greater London in 2007	Increase in road vehicle trips and vehicle kilometres	Exposure to increased air pollution (leading to respiratory diseases) and noise (leading to annoyance and the potential for sleep disturbance and ultimately health effects)
Walking and Cycling	<p>About a quarter of all trips are made by walking or cycling</p> <p>There were around 1,300</p>	Increase in number of walking and cycling trips due to the measures and schemes in TfL Business	<p>Increased physical activity</p> <p>Increase in risk from road collisions</p>

¹⁰ Employment and population growth would have increased this to 67% without this capacity increase



Table 5: Baseline Data

Baseline Issue	Current Characteristics	Predicted Trends to 2031	Issues Identified
	pedestrians and 450 cyclists killed or seriously injured in London in 2007	Plan	
Safety and Security			
Road traffic accidents	There were 3,300 serious injuries and 200 killed on London's roads in 2008 and there has been a declining trend in casualties in recent years	With increases in road vehicle kms, there are likely to be increases in collisions With increases in walking and cycling, there are likely to be increases in the number of people killed and seriously injured	Accidents and casualties on all transport modes
Crime on the transport system	There are 13 crimes on the Underground and DLR for every million passenger journeys, with the equivalent rate of 12 on buses in London	With increased use of the public transport system, there are expected to be increases in crime	Crime discourages the use of transport by all people, with disadvantaged groups often being adversely affected
Major incidents	TfL staff are trained in dealing with disruption caused by major incidents such as terrorist attacks or extreme weather conditions	Likely to be an increase in major incidents related to climate change such as flooding, very hot or very cold weather	Contingency planning and preparedness for major incidents – communication for all travellers
Climate Change			
CO ₂ Emissions	Approximately 22% of London's CO ₂ emissions (including ground based aviation) are from transport Car-based modes emit up to half as much again in CO ₂ per passenger kilometre as the public transport modes Per capita, CO ₂ emissions associated with transport in London are 45% lower	Improvements in vehicle fleet fuel efficiency are anticipated to reduce emissions at a faster rate than traffic growth increases emissions Mode shift from car to lower carbon modes Increased awareness of environmental impact of travel behaviour Progress towards decarbonisation of	Energy sources and efficiency Freight transport Car dependency Security of supply of energy Tackling congestion Acceleration of uptake and development of low-carbon vehicles Adaptation measures to mitigate impacts from



Table 5: Baseline Data

Baseline Issue	Current Characteristics	Predicted Trends to 2031	Issues Identified
	than the UK average	<p>electricity supply and further development of sustainable bio-fuels</p> <p>Overall expectation is CO₂ emissions reduced by 16% from 2006</p> <p>Climate change will result in various impacts (flooding, heat waves and reduced water availability) which could significantly affect transport in London</p>	climate change on transport network and services
The Physical Environment and Public Realm			
Physical Environment	London has a rich and diverse built heritage with many locations and areas that are especially important due to their historic, architectural and cultural heritage. These places are rendered less attractive, accessible and enjoyable by high levels of traffic, congestion, and traffic-related air pollution and noise	With increase in traffic, it is likely that the amenity of areas and locations of historical, architectural and archaeological significance will reduce	<p>Impact of physical planning and operation of transport services on physical environment, biodiversity, greenscape, trees etc.</p> <p>Effect of traffic on streetscape, historic and cultural environment and public realm</p> <p>Transport facilities and role in design of built environment</p>
Air Pollution	London's air quality is the worst in the UK, particularly in central and inner London, with Government and EU air quality targets not being met	Improvements in vehicle technologies (despite increasing traffic levels) are expected to result in a reduction in total emissions.	<p>Adverse health and wellbeing impacts from air pollution</p> <p>Role of low / cleaner emissions road vehicles in improving air quality</p>
Noise	Road traffic noise is of more concern to the population than any other noise source	Increase in traffic will result in an increase in road traffic noise	<p>Increased annoyance and anxiety stemming from noise pollution</p> <p>Impact on noise climate from quieter road vehicles</p>

