

## **Appendix C: Strategic Environmental Statement: Environmental Statement**

### **1.0 Introduction**

- 1.0.1 Richmond upon Thames, like all London local authorities, is required under the Greater London Authority Act 1999 to produce a Local Implementation Plan (LIP) showing how the authority intends to implement policies, strategies and programmes over the following five years to implement the objectives of the Mayor's Transport Strategy (MTS). The preparation of the LIP should also take into account the objectives set out in other Mayoral Strategies.

### **1.1 SEA and the Regulations**

- 1.1.1 Under European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, all such authorities must carry out a Strategic Environmental Assessment (SEA) of new plans in certain areas, including transport. This is implemented in England through the Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004 No.1633). National guidelines for preparing an SEA have been issued by the Office of the Deputy Prime Minister (ODPM)- now the Department for Communities and Local Government (DCLG), The Department for Transport (DfT), and by the consultation bodies: the Environment Agency, English Nature, Countryside Agency and English Heritage. The SEA process for LIP's is designed to integrate with the DfT's New Approach To Appraisal (NATA). Advice on the application of SEA to LIPs has been provided through the Association of London Government (ALG) by the Centre for Sustainability.
- 1.1.2 SEA Regulations 16.3(c)(iii) and 16.4 require that a 'statement' be made available to accompany the plan, as soon as possible upon adoption of the LIP. Details of what is required in the statement are provided in Section 2.0 of this document.

### **1.2 SEA Process and Stages Completed to Date**

- 1.2.1 SEA is a process to ensure that the environmental impacts of plans are considered from the earliest stage, and that significant negative impacts are identified, assessed, mitigated, communicated to decision makers, and monitored. The process also provides opportunities for public involvement. The stated objectives of the SEA Directive are to:
- Provide for a high level of protection of the environment; and
  - Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.
- 1.2.2 The SEA process can be divided into five stages (Table 1). Information on stages A and B was included in the SEA Scoping Report, which considered the environmental baseline and problems, alternative LIP strategies, and possible "significant" impacts.
- 1.2.3 The main output of the SEA process is an "Environment Report" in which the likely significant environmental impacts resulting from implementation of the LIP are described. This was included as an Appendix to the draft Local Implementation Plan.

- 1.2.4 Following the completion of the consultation phase of the process and receipt of submissions from the community, stakeholders, and a comprehensive detailed response from Transport for London (TfL) on behalf of the Mayor, an Environmental Statement is now required which details the consultation received and the justification for any changes that have been made to the final updated LIP.

**Table 1: Summary of SEA Stages**

<b>SEA Stage</b>	<b>What is involved</b>
STAGE A	Setting the context, identifying objectives and problems, and establishing the baseline Deciding the scope of the SEA and developing alternatives
STAGE B	A Scoping Report of what will be included in the Environment Report is prepared and sent to statutory environmental bodies for consultation and to consider different approaches and alternatives
STAGE C	Assessing the impacts of the plan and potential mitigation measures Production of the Environment Report Main consultation on the draft LIP and Environment Report
STAGE D	Produce Environmental Statement (post consultation)
STAGE E	Monitor the significant impacts of implementing the plan on the environment

- 1.2.5 This document comprises Stage D of the process and is known as an Environmental Statement. The Environmental Statement identifies the issues that arose through the consultation phase of the draft LIP and justifies the choices made in the updated LIP. This helps to make the process transparent. Chapter 10 of the LIP provides a summary of the consultation, including who was consulted and the feedback received. The Environmental Statement will provide the justification for the decisions.
- 1.2.6 A copy of the Environmental Report (ER) is available on the Council web page at [www.richmond.gov.uk](http://www.richmond.gov.uk) under the Transport Planning section of the web site.

## **2.0 Requirements of the SEA Environmental Statement**

- 2.1 The SEA regulations require 5 aspects to be included in an Environmental Statement (ES) and these are detailed:
1. How environmental considerations have been integrated into the LIP;
  2. How the Environmental Report has been taken into account;
  3. How consultation responses have been taken into account;
  4. Reasons for choosing the LIP as adopted, in light of other reasonable alternatives dealt with;
  5. Measures that are to be taken to monitor the significant environmental effects of the implementation of the LIP.
- 2.2 The Borough is also required to notify the consultees of the adoption of the plan, and the availability of the LIP and accompanying statement. The notification can be via the Borough web site or through a press statement, or both. The structure of the Environmental Statement broadly follows the requirements detailed above.
- 2.3 To avoid repetition the ES should be read in conjunction with the ER.

### **3.0 ER Objectives**

These are taken from Table 10: SEA Objectives, Indicators and Targets, on pages 80-85 of the draft LIP SEA Environment Report:

- Minimise the negative health impacts of traffic by encouraging healthy lifestyles involving walking and cycling.
- Increase the proportion of energy from renewable sources consumed through transport.
- Increase the extent to which recycled materials are used in construction and maintenance.
- Improve local air quality.
- Reduce and mitigate noise impacts from transport.
- Minimise irreversible loss of soil as a consequence of development of transport infrastructure.
- Limit surface water and ground water pollution from the transport network to levels that do not damage natural systems.
- Maintain and enhance landscape and townscape character and resources and opportunities for their enjoyment.
- Conserve and enhance historic buildings, archaeological sites and other culturally important features.
- Maintain and where possible enhance biodiversity opportunities in transport planning.
- Reduce greenhouse gas emissions from transport.
- Reduce vulnerability to climate change.
- Promote services and programmes addressing accessibility needs, contributing to neighbourhood renewal.
- Reduce the number of fatal, serious and minor transport-related accidents.

### **4.0 How have environmental considerations been integrated into the LIP?**

- 4.0.1 Environmental Considerations have been integrated into the LIP through the parallel process that took place in preparing both the LIP and SEA at the same time. The initial Scoping Report also enabled issues to be identified. Despite this, there are limitations to how many environmental considerations can be integrated with the LIP, primarily as the LIP specifications are controlled through the Mayor's Transport Strategy which in its own right would need an SEA prepared if it had been prepared after the SEA regulations had applied. Notwithstanding this, environmental considerations have largely been integrated into the LIP through the measures outlined in LIP proposals (known as Form 1's) and also in the objectives of Policy and Strategy documents contained within the LIP.

#### **4.1 Environmental Considerations**

- 4.1.1 The environmental considerations have been developed around the ER objectives detailed in paragraph 3.0 of the ES.
- Air Quality
  - Water
  - Noise
  - Cultural Heritage, Including Archaeological and Architectural Heritage
  - Landscape and Townscape
  - Biodiversity, Flora and Fauna

- Population and Human Health
- Soil
- Climate Change
- Material Assets

4.1.2 Some of the specific ways in which environmental considerations have been taken into account are detailed in section 6 of the ES.

## **5.0 How has the Environmental Report been taken into account?**

5.1 The SEA has enabled improved clarity and direction for the final LIP. The SEA was included as an accompaniment to the draft LIP and was subject to consultation along with the LIP. Specifically, a question was included in the questionnaire accompanying the draft LIP, inviting comments on the SEA. The question asked:

*'Appendix C contains a draft Strategic Environmental Assessment of the main document. This is a new legal requirement for the Council. The Objective is to ensure the best possible care is taken of our environment while implementing the Council's Transport Strategy. Do you have any comments to offer on the Environmental Report?'*

5.2 Comments on the SEA were limited, in terms of a response from the public and other stakeholder groups, although the following comments were provided in response to the question:

- Very lengthy and rather difficult to extract key points.
- Surely cars should have to pay to enter Richmond Park if carrying able-bodied people.
- It would be desirable to make the bus lane barrier at Hammersmith Bridge work better and be less obtrusive.
- The report misses the detrimental effect that fast moving traffic has on communities and individuals, as well as avoiding the non-sustainable future of motorised traffic due to oil availability and global warming.
- A reduction in motor traffic has a linear benefit but this does not seem to be Council policy.
- Protection of the environment should be at the heart of all services delivered by the Council
- Ensuring a high quality and attractive provision for walking and cycling and continuing to make public spaces more accessible and attractive.

5.3 The remainder of the questionnaire results are also relevant in that the feedback resulted in changes being made to the LIP. The justification for the changes is detailed further on in this ES.

5.4 Transport for London (TfL) provided extensive feedback on the LIP. This is understandable given that they are the organisation that provides the recommendation to the Mayor for approval of the LIP. Much of their feedback has resulted in direct adjustments and updating of the LIP as it would be very unlikely to receive approval if these changes are not made. TfL also provided specific comment and feedback on the SEA with suggested inclusion of various matters in the ES.

5.5 The SEA ER was subject to Cabinet, and Overview and Scrutiny Committee approval in January 2005 in order to gain approval for consultation to commence.

5.6 The ER influenced the preparation of the LIP through identification of the different environmental concerns. In particular, the ER Objectives in conjunction with the Mayor's Transport Strategy Objectives and Priority Areas, helped to focus the development of the LIP.

5.7 Lastly, in the period between the SEA and the ES being prepared, there has been a change in political administration at the Borough and this has resulted in a change in direction from a transport policy perspective. This has been taken into consideration when preparing this ES.

## **6.0 How were consultation results taken into account?**

6.0.1 The SEA accompanied the draft LIP to all those who requested a hard copy and was also available on the Council website. This meant that anyone who wanted to look at the document was able to do so.

6.0.2 Chapter 10 of the LIP provides a detailed overview of the LIP Consultation results with a summary of the points raised and a brief response detailing the outcome. The LIP Matrix in Appendix B of the LIP also contains extensive comment on the matters raised by TfL together with the Borough response. The ER helped to identify many of these revised and/or additional measures.

## **6.1 English Heritage**

6.1.1 English Heritage provided specific comment on the SEA ER. In their submission, and in respect of the SEA, they indicated that:

- '1. they would like more defined indicators for further assessment and monitoring of the effects of proposals on the historic environment*
- 2. arrangements for further monitoring of the environmental performance of the LIP objectives should focus on the need for qualitative assessment.*
- 3. the assessment of SEA objectives relating to the historic environment should be assessed on a broader range of historical assets.'*

6.1.2 These matters have been addressed either in the SEA ER or within this SEA ES.

## **6.2 English Nature**

6.2.1 English Nature also provided specific comment on the SEA ER. Their comment stated that:

*'Specific mitigation measures should be identified for each plan or project so that there is no loss of habitat and there should be no impact on the conservation status of protected, national, or Richmond BAP priority species.'*

NB: BAP- Biodiversity Action Plan

6.2.2 The above comment is a consideration in the development of relevant plans and projects. In saying this, wherever a proposal requires planning permission it is also likely that the conservation status of national and Richmond BAP priority species will be protected.

### **6.3 Safer Travel at Night**

- 6.3.1 It was identified that the Borough had very little in the way of Safer Travel at Night (STAN) measures identified in the LIP. As a result, a new proposal form has been prepared for funding to undertake a STAN study, as the Borough would like to gain more information on where it should be targeting such measures in the Borough. The linkage of STAN principles to the objectives of the ER may be tenuous but in this case the longer-term view is that a safe environment reduces the possibility of measures being introduced that may impact on the built heritage of the Borough.

### **6.4 Noise Monitoring**

- 6.4.1 It was identified that the Borough would like to monitor the effects of noise from Heathrow Airport and a proposal has been added to an existing LIP proposal form to monitor the effects of aircraft noise. This would be achieved jointly with neighbouring Borough's also affected by noise from the airport and would help provide information on the noise from aircraft and the effects on Borough residents.

### **6.5 Additional Automatic Traffic Counters**

- 6.5.1 It was identified that more information could be gained from Automatic Traffic Counters (ATC's) on Borough roads to aid monitoring of traffic volumes. This will help with monitoring the targets contained in the ER. It will also potentially help to direct programmes in terms of public transport provision, and provision of cycling and walking measures.

### **6.6 Movement of Waste by Water**

- 6.6.1 It was identified that there were no proposals to transfer waste by water. As a result, a proposal has been prepared that will investigate the potential locations for a vehicle hard standing area by the Thames River in order to facilitate the transfer of waste by means other than road transfer. A successful study will result in measures that will aid the movement of waste and potentially result in less freight on local roads, which will in turn reduce air pollution along major transport corridors.

### **6.7 LB Richmond-upon-Thames Transport Strategy**

- 6.7.1 It was identified through feedback that the Council Transport Strategy was not wholly compatible with the objectives of the Mayors Transport Strategy. In addition, a change in political administration at the Council has also contributed to the need to review the Transport Strategy. It is likely that the review will result in greater emphasis being given to sustainable modes of travel such as cycling, walking and the use of public transport. Many of these are also detailed within the manifesto of the new administration and will be key drivers for at least the next 4 years.
- 6.7.2 The implementation of the Borough Transport Strategy was an overarching theme of the draft LIP and was in many places in direct conflict with the Mayors Transport Strategy. Implementation of the Borough Strategy would have been at odds with the MTS to such that approval of the LIP was unlikely and gaining funding potentially difficult also as the funding would be dependent on the ability of the Borough proposals to meet the objectives of the MTS.

6.7.3 The focus on balanced road space was such that cars were likely to remain the significantly dominant user of road space which would mean that the Borough would be very unlikely to achieve a reduction in traffic volumes and unlikely to achieve targets for more sustainable modes of travel such as cycling, walking and bus use. The Borough would also have been unlikely to achieve the objectives set out in the SEA ER.

6.7.4 The SEA and consultation feedback have had a direct impact on the change in focus of the LIP.

## **6.8 Bus Priority**

6.8.1 The LIP needed further information on Bus Priority and a number of additional proposals have been developed. Improving the ability of buses to move through the Borough in an efficient manner will assist with encouraging people in to more sustainable means of travel. Greater use of an efficient bus service resulting from modal shift will aid air quality.

## **6.9 Cycling**

6.9.1 Additional Cycling schemes have been identified as a result of consultation feedback. These will help to enhance the Borough-wide cycling network as well as the Borough component of the London-wide cycle network. Cycling is a key growth area that will assist with reducing air pollution.

## **6.10 Trees**

6.10.1 A proposal has been included for funding to plant trees across the Borough to help clean the air and reduce the levels of particulates as well as make a contribution towards combating climate change. The inclusion of this was in part the result of consultation feedback but also the measures identified in the SEA ER on air quality.

## **6.11 Parallel Initiatives**

6.11.1 Parallel Initiatives focus on making improvements to the transport network that benefit all road users with particular focus on buses, cyclists, and pedestrians together with improvements to the public realm. A new proposal form has been prepared to outline a programme of parallel initiatives. The successful implementation of such schemes will help to reduce pollution and make the road environment a safer and more enjoyable experience for all users.

## **6.12 Signs, Lines and Street Clutter Removal**

6.12.1 This has been included as a result of feedback on the draft LIP from TfL and residents. The purpose of this is to reduce the level of street clutter that is prevalent across not just Richmond but London as a whole. It is hoped that this will have benefits in terms of improving the significant heritage environment of the Borough (identified in the SEA ER) and improve pedestrian safety (also identified in the SEA ER)

## **6.13 Sweltrac**

6.13.1 Sweltrac are an important feature in the sub-regional context of London and the Borough is the lead authority for the programme of works undertaken by Sweltrac. The LIP consultation process revealed that little had been provided about the Sweltrac

programme for the Borough. As a result, the final LIP provides a detailed programme of work within the Borough. In addition, due to the Borough's lead status, the LIP also provides the programme of non-borough specific works. These measures, like the others detailed, will help encourage modal shift with a resultant reduction in air pollution.

## **6.15 Environmental Component of the LIP**

6.15.1 The LIP has been updated to include more about the importance of Environmental matters (e.g. Congestion Hotspot Monitoring, Tree Planting and Aircraft Noise Monitoring- RUTLIP form 5b). The Borough draft AQAP is now included in the LIP as Appendix J. The monitoring of CO<sub>2</sub> levels are very important in determining the level of benefit gained by reducing traffic volumes.

## **7.0 How have alternatives been taken into account?**

7.1 The LIP Scoping Report considered 3 alternative scenario's for the preparation of the SEA. These were:

- The impact of doing nothing
- Congestion relief via demand management against capacity expansion
- Environmental impacts of using traffic calming against dropping this tool

7.2 The decision to consider three alternatives was based on the fact that the environmental considerations have largely been a part of the Borough's objectives for many years, so to divert from an existing well established approach would not be desirable. In light of the role of LIP's in the hierarchy of plans and strategies, e.g. the Mayor's Transport Strategy, there is limited scope to develop alternative meaningful scenarios.

7.3 To assist the development of the draft LIP, further alternatives were considered on a case-by-case basis and these are detailed in the ER on pages 88-89.

7.4 For the final LIP and this ES, the alternatives can be considered quite broadly. It is considered that the alternatives are:

- To update the draft LIP so that it complies with the Mayors Transport Strategy
- To make no changes and submit the draft LIP for adoption
- To update the draft LIP so that it complies with the Mayors Transport Strategy insofar that it can be, and provide clear justification where it is not possible to comply at this point in time or if circumstances to not enable compliance

7.5 The overarching approach to updating the LIP has been to achieve its approval. In some cases, it has been possible to update the LIP to allow for compliance with the MTS, whilst in other cases an explanation has been provided as to why it is not possible.

7.6 Examples of the above include cycling and freight distribution centres. For the final LIP, cycling has been broken into three separate proposal forms, those being LCN+; Non-LCN+; and, Cycle Training Programme and Cycling Strategy update. A clearer explanation has been provided in the LIP Matrix as to what the Borough proposes to do with cycling. The alternative to this was to make no changes but it would have been unlikely to gain approval and potentially be unlikely to gain funding.

7.7 The TfL feedback indicated that the Borough should provide an indication of suitable locations for freight distribution centres. The Borough response to this has been that the



Borough is located in a very lightly industrialised part of London and as far as it is aware, there is no demand for such a facility. Notwithstanding this, the Borough would be willing to consider locations should there be future demand. The alternatives to this were that the Council ignores the request, or that it found a location for a freight distribution centre. By ignoring the request, on the face of it the Borough would not be satisfactorily addressing the MTS policy. By finding a location, the Borough would be identifying a location for a facility for which there is no known demand. Neither of these alternatives would be acceptable.

- 7.8 It is considered that the updated LIP meets the objectives of the MTS and it is unlikely the alternative approaches would achieve the same outcome. The ER Objectives will also not be achieved to the same level by using an alternative approach such as maintaining the status quo.

## **8.0 How is the ES to be monitored?**

- 8.1 The first portion of this section of the ES is taken from the relevant ER Chapter and the remainder builds on what was started in the ER. Monitoring is a legal requirement of the SEA process. Its purpose is to measure the performance of a plan against the environmental objectives or targets set out in the Environmental Report. Monitoring can help to address the following questions:

- Is the plan contributing to the desired environmental targets?
- Is the plan performing as well as expected?
- Are mitigation measures performing as expected?
- Are there any undesirable environmental effects? Is remedial action required?
- Are the environmental effect predictions of the SEA accurate?

- 8.2 For the Borough of Richmond upon Thames the SEA has identified the following areas where information necessary to establish or monitor SEA targets is either incomplete or missing.

- Carbon dioxide emissions from transport broken down by mode of transport.
- Total energy use and proportion supplied from renewable sources.
- Quantities of aggregates used in construction and maintenance and proportion recycled.
- Life cycle analysis of material resources.
- Number of transport-related noise complaints and requests for compensation (other than air traffic).
- Quality and number of footpaths and cycle paths to community facilities, parks and open spaces.
- Percentage of population within an area of deficiency for access to a site of nature conservation value.
- Number of bus stops that are accessible to people with disabilities.
- Biodiversity Action Plan priority species and habitats, designated sites and Sites of Importance for Nature Conservation impacted by the transport network.
- Number and types of flooding incidents impacting on transport network.
- Number and types of flooding incidents directly related to runoff from the transport system.

- 8.3 Where the Borough is the responsible agency, the Council is committed to ensuring that the necessary information will be obtained within one year of adoption of the LIP. Where

missing information, or the establishment of targets, relates to the LIP, guidance is being sought from TfL or ODPM as appropriate.

- 8.4 The consultation feedback from TfL suggested that *'the ER should [also] provide information as to how the monitoring will be conducted, by whom etc, as well as what will be monitored. For example, this may be achieved by giving information on how such indicators will be analysed, e.g.: examination of patterns of change; change against baseline position and predicted effects etc.'*
- 8.5 The feedback from TfL indicated that the monitoring component required more information. The Indicators detailed in the ER are derived from the ER Objectives and are detailed in *'Table 3: SEA Objectives, Indicators and Targets'*. The indicators have changed from the version contained within the ER as on closer analysis it was revealed that either the Borough did not have the information and/or it was not data that was practical to obtain. *'Table 2: Changes to Indicators from ER to ES phases of SEA'*, below, shows those indicators that have changed:

**Table 2: Changes to Indicators from ER to ES phases of SEA**

Obj	Old Indicator	Explanation of Information required	New Indicator/target	Reason for change
1a		Target required	25% by 10%	Target now included as it was not previously specified
1c	Increase in number of journeys involving walking or cycling	Target also required	Proportion of non-car travel 7% by 2011 (to 63%)	Individual target not monitored. This target is being sought through LIP also so data will be available
2				
5		Target required	10% reduction by 2010 (baseline includes: delivery noise; road and rail traffic noise; music from cars). Some noise is exempt from statutory nuisance powers	Target now included as it was not previously specified
6	Reduce area of soil lost to transport infrastructure	New roads, vehicle hard standing, and car parking details including areas and whether they were built on a greenfields site in order to measure soil loss.	Deleted	The Borough does not monitor this at all accurately as not every action requires Council permission therefore it is impossible to know what is happening. The Borough does aim to minimise the impacts of new transport infrastructure.
9a	Number of Listed Buildings of Townscape Merit or their settings adversely affected as a consequence of transport activities	No explanation required	Number of Listed and locally listed Buildings of Townscape Merit or their settings adversely affected as a consequence of transport activities	Included locally listed buildings following receipt of feedback from English Heritage
11	CO <sub>2</sub> emissions attributable to transport system	CO <sub>2</sub> emissions from transport broken down by mode of transport.	CO <sub>2</sub> emissions from transport	The Borough has no way of gathering data on emissions from different modes of transport
12	Reduction in		Deleted	This is a repeat of

	frequency of flooding events impacting on the transport network			Objective 7b
13a		Target required	25% in cycle paths by 2010 and 5% in footpaths by 2010	Target now included as it was not previously specified

## **9.0 Analysis of monitored indicators**

- 9.1 The primary purpose of the indicators and the gathering of information are to monitor changes over time of key environmental pointers and by establishing a baseline level of information it is possible to measure change over time. The degree of change may impact on how the Council chooses to respond to the various matters. For example, the monitoring of CO<sub>2</sub> emissions in the Borough over time may show that there is a steady trend upwards which will mean that the Borough (and probably the rest of London) will have to continue to implement methods to reduce CO<sub>2</sub> emissions. However, if the information gathered was able to identify the level of CO<sub>2</sub> emissions from different sources over time, it may show that the Borough is doing all that can be done and that other sources, such as aircraft travel or national emissions should be considered. This is still possible despite the change to the indicator detailed in Table 2.
- 9.2 The results of monitoring can be used to help form the basis for the preparation of future Local Implementation Plans and Strategic Environmental Assessments by providing a basis and justification for proposed works. They can also be used in the preparation and formulation of policies and strategies at a Borough and regional level.

**Table 3: SEA Objectives, Indicators and Targets**

Topic	Indicators	Targets	Trends	Problems / Constraints	Information	Source of information
<b>Human health</b>						
<i>Objective 1:</i>	<i>Minimise negative health impacts of traffic by encouraging healthy lifestyles involving walking and cycling</i>					
	Increase in total length of recognised cycle and pedestrian routes	Increase by 25% by 2010	In 2004, 100% of footpaths and other PROW were easy to use by members of the public	River Thames creates a natural barrier	Current length of recognised cycle and pedestrian routes and ease of use	BVPI monitoring
	Improved maintenance of cycle and pedestrian routes	Increase planned maintenance of highways and footpath maintenance by an average of 5% annually over 3 years (current target)	Most roads already have footway. Most signal controlled junctions have pedestrian phase		Current maintenance plans for cycle and pedestrian routes	BVPI monitoring
	Proportion of non-car travel	Increase by 7% by 2011 to 63%	Undefined	Cycle theft and personal security	Number of journeys involving walking or cycling	Screenline monitoring/LATS data
<b>Material assets</b>						
<i>Objective 2:</i>	<i>Increase the proportion of energy from renewable sources consumed through transport.</i>					
	Reduced total energy use and increased proportion of supply from renewable sources	Increase in percent of total supplied from renewable sources of **% by 2010.	Undefined	Incomplete information	Total energy use and proportion supplied from renewable sources	To be determined. The source of information for this target is still being determined.
<i>Objective 3:</i>	<i>Increase the extent to which recycled materials are used in construction and maintenance.</i>					
	Increased use of recycled materials	Increase percentage of recycled aggregates used for road building and maintenance to 75%	Undefined	Incomplete information	Quantities of aggregates used in construction and maintenance and proportion recycled	(2005 LA21 target) To be determined
	Lifecycle assessments completed	Gather available information on the lifecycle of resources	Undefined	Incomplete information	Life cycle analysis of material resources	(LA21 objective) To be determined

Topic	Indicators	Targets	Trends	Problems / Constraints	Information	Source of information
<b>Air Quality</b>						
<i>Objective 4:</i>	<i>Improve local air quality</i>					
	Reduction in number of days that pollution guidelines are exceeded for particulates and nitrogen dioxide	Zero (LA21 target) Meet TfL targets for reduction of PM <sub>10</sub> and NO <sub>2</sub> within the LEZ.	Expected to improve with introduction of LEZ	Measures need to integrate with existing AQAP and proposed LEZ. Contribution to air pollution from outside the Borough	Number of times per year that daily NO <sub>2</sub> and PM <sub>10</sub> levels exceed relevant limits	TfL LEZ monitoring
<b>Noise</b>						
<i>Objective 5:</i>	<i>Reduce and mitigate noise impacts from transport.</i>					
	Reduced number of complaints due to noise from traffic and road works	Reduce number of complaints by 10% from current baseline by 2010	Expected to improve with introduction of LEZ	May conflict with clear road ahead policy. Freight is a significant contributor. Some transport noise is exempt from statutory noise powers	Number of transport related complaints and requests for compensation other than due to air traffic)	To be determined
<b>Water</b>						
<i>Objective 7:</i>	<i>Limit surface water and ground water pollution from the transport network to levels that do not damage natural systems.</i>					
	Water quality of water bodies affected by the transport network	No detrimental impact	Generally improving	Difficult to separate transport-related effects from those due to other activities	Water quality monitoring (chemical, physical and biological parameters).	Environment Agency
	Reduced frequency of floods attributable to the transport network	Aim to minimise where practicable	Undefined	Surface water discharges can overwhelm treatment works after heavy rain	Number and types of flooding incidents directly related to runoff from the transport system	Environment Agency

Topic	Indicators	Targets	Trends	Problems / Constraints	Information	Source of information
<b>Landscape and townscape</b>						
<i>Objective 8:</i>	<i>Maintain and enhance landscape and townscape character and resources and opportunities for their enjoyment.</i>					
	Percentage of suitable sites improved.	Increase percentage of suitable sites improved to 35%	70 Conservation Areas designated as at March 2004. 4,890 Buildings of Townscape Merit in 2004	Increasing use of public open spaces	Number of projects where townscape, urban design and an improved public realm are among the primary impacts.	(2005 LA21 target) Conservation Area Statements. Heritage Counts UDP monitoring.
	Improved accessibility	LA21 objective but no target set	Undefined	Improved access can lead to problems with visitor pressure. Lack of accessible local parks for children and the elderly.	Percentage of population within an area of deficiency for access to a site of nature conservation value.	Borough
<b>Cultural heritage</b>						
<i>Objective 9:</i>	<i>Conserve and enhance historic buildings, archaeological sites and other culturally important features</i>					
	Number of Listed and locally listed Buildings and Buildings of Townscape Merit or their settings adversely affected as a consequence of transport activities	No transport related loss or damage to Listed Buildings or Buildings of Townscape Merit	Number of buildings on Buildings on "At Risk" Register decreased in 2004	Difficult to separate out effects of transport	Number and location of Listed Buildings	UDP monitoring/ English Heritage Regional Reports
	Number of SAMs or other nationally important archaeological sites or their settings damaged or destroyed by transport activities	No loss or damage to SAMs	Currently 4 SAMs in Borough and 1,130 Buildings of Special Architectural and Historic Interest	Primary, secondary and synergistic effects	Number and location of archaeological sites on SMR (including number and location of SAMs)	UDP monitoring/ English Heritage Regional Reports

Topic	Indicators	Targets	Trends	Problems / Constraints	Information	Source of information
<b>Biodiversity, flora and fauna</b>						
<i>Objective 10:</i>	<i>Maintain and where possible enhance biodiversity opportunities in transport planning. (SINC= Sites of Importance for Nature Conservation)</i>					
	Biodiversity maintained	No loss or damage to BAP priority habitats, designated sites or SINCS.	Variable according to species and habitat	Need to consider habitats not traditionally associated with wildlife sites	BAP priority species and habitats, designated sites and SINCS impacted by the transport network	Richmond Biodiversity Partnership London Biodiversity Partnership database
	SINCS enhanced	Increase percent of SINCS surveyed / monitored to 30%	Undefined	Incomplete information	Percentage of sites of nature conservation importance surveyed/ monitored	(2005 LA21 target) Greenspace Information for Greater London
	Transport-related issues incorporated into nature conservation objectives	Increase percent of SINCS with recognised/ known Management plans/briefs to 30%	Undefined	Incomplete information	Percentage of sites of nature conservation importance with recognised/known management plans / briefs	(LA21 medium term target)
<b>Climate</b>						
<i>Objective 11:</i>	<i>Reduce greenhouse gas emissions from transport</i>					
	CO <sub>2</sub> emissions attributable to transport system	Reduce CO <sub>2</sub> emissions by more than 12% from 1990 baseline by 2011	CO <sub>2</sub> emissions increasing	Road traffic responsible for 80% of CO <sub>2</sub> emissions	CO <sub>2</sub> emissions from transport broken down by mode of transport.	GLA Local Atmospheric Emissions Inventory 2003
<b>Accessibility</b>						
<i>Objective 13:</i>	<i>To promote services and programmes addressing accessibility needs, contributing to neighbourhood renewal</i>					
	Improved access to community facilities for pedestrians and cyclists	Increase by 25% in length of cycle paths and 5% in number of footpaths by 2010.	Undefined	Poor accessibility restricts freedom of choice of mode of transport	Quality and number of footpaths and cycle paths to community facilities, parks and open spaces	Partially covered by BVPI 178. BVPI 127 (violent crimes) is also relevant

Topic	Indicators	Targets	Trends	Problems / Constraints	Information	Source of information
	Improved access to transport facilities for the disabled	Increase the number of bus stops that are accessible to people with disabilities by **% from current baseline by 2010	Undefined	Requires availability of accessible buses	Number of bus stops that are accessible to people with disabilities	BVPI 156 Awaiting development of TfL target
		100% of pedestrian crossings with disabled facilities by 2006/07	On target?		Number of pedestrian crossings with facilities for the disabled	BVPI 165
	Improved access to schools	100% of schools having travel plans developed and implemented by 2008	Undefined	Incomplete information	Number of schools where a review of travel has taken place and where a school travel plan has been implemented	Borough
<b>Safety</b>						
<i>Objective 14:</i>	<i>To reduce the number of fatal, serious and minor transport-related accidents.</i>					
	Number of fatal, serious and minor transport related accidents	40% reduction in killed and seriously injured (KSI) by 2010	Has reduced from 135 for 1994-98 to 124 for 2003		Serious fatal injuries by road user group	Borough casualty figures
		50% reduction in child KSI by 2010	Has reduced from 14 for 1994-98 to 11 for 2003	Need to cut traffic speed and volume	Yearly average KSI for children	Borough casualty figures
		10% reduction in slight rate	Has reduced from 715 for 1994-98 to 664 for 2010		Yearly average of slight casualties	Borough casualty figures
		40% reduction in KSI for pedestrians, cyclists and powered two-wheelers by 2010	Has reduced from 135 for 1994-98 to 109 for 2003	Number of casualties attributed to powered two wheelers has increased		Borough casualty figures