

# **Wandsworth Council's Third Local Implementation Plan**

Strategic Environmental Assessment

Environmental Report

December 2018

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# Non-Technical Summary

## SEA Environmental Report of the Wandsworth Local Implementation Plan

This is the Non-Technical Summary for the Environmental Report of Wandsworth's Third Local Implementation Plan (LIP). Under the Environmental Assessment of Plans and Programmes Regulations 2004, a 'Strategic Environmental Assessment' (SEA) of the Wandsworth LIP is considered to be required.

The Environmental Report is available for consultation until 7<sup>th</sup> February 2019, and comments on the document are welcome.

## What is the Wandsworth LIP?

A LIP is a statutory document, which sets out how a London Borough proposes to implement the London Mayor's Transport Strategy (MTS) at a local level. The Wandsworth LIP provides details of the Borough's transport programmes and funding requirements. It covers the same period as the third MTS (up to 2041) and includes specific delivery proposals for the three year period 2019/20 – 2021/22.

## What is an SEA?

European Directive 2001/42/EC (known as the 'SEA Directive') on the assessment of the effects of certain plans and programmes on the environment was adopted into UK law in July 2004 through the SEA Regulations. SEA is a process which aims to integrate environmental and sustainability considerations into the preparation and adoption of plans and programmes in order to promote sustainable development.

A key stage of the SEA process is the preparation of the Environmental Report (this report) in which the likely significant environmental effects of the plan are described. The purpose of this report is to:

- To aid consultation on the LIP by providing consultees with information on the potential environmental effects
- To assist London Borough of Wandsworth with decision making on the LIP by highlighting the potential environmental effects of the plan.

## Coverage of the Environmental Report

The following items have been examined during the course of the assessment and are presented in the Environmental Report:

- Background information on Wandsworth LIP and its main objectives
- Relationship of the LIP to other plans, programmes and environmental protection objectives
- The environmental baseline
- The SEA Framework of objectives
- The compatibility of LIP objectives with the SEA objectives
- Assessment of the environmental effect of the LIP and its alternatives
- Proposed mitigation measures
- Monitoring measures

## Environmental context and baseline

The LIP is influenced by other relevant plans, programmes and strategies at international, national, regional and local levels. At international level, international agreements and EU directives establish requirements and guidance on issues such as sustainable development, climate change, biodiversity, habitats, water and air quality. There are also specific national plans, guidance and strategies on aspects such as transport, planning, climate change, air quality, biodiversity, the historic environment and sustainable development. These have already been considered in the development of the MTS. At the London-wide level, the London Plan and MTS are key policy documents which influence the direction of the LIP. The Mayor also has numerous strategies covering a diverse range of topics, including environment, economic development, housing, culture and tourism. At the local level, Wandsworth's Local Plan and Corporate Business Plan set a framework for the future development of

the Borough. A number of action plans for Wandsworth focus on environmental objectives for the Borough (e.g the Air Quality Action Plan).

Key environmental objectives of these various plans and programmes have been considered in the assessment of the Wandsworth LIP.

The environmental baseline and likely influence of the LIP are described. A review of the environmental data for Wandsworth has revealed a number of environmental characteristics:

- Some 818 ha of the borough is designated as Sites of Importance for Nature Conservation (SINCS). This comprises Sites of Metropolitan Importance: 4 (424 ha), Sites of Borough Importance Grade I: 9 (164 ha), Sites of Borough Importance Grade II: 17 (202 ha), Sites of Local Importance: 8 (28 ha).
- 287 ha are designated as Areas of Biodiversity Importance.
- Special Areas of Conservation (SACs) are Wimbledon Common (part within Wandsworth) and Richmond Park (across the borough boundary).
- There is one Local Nature Reserve (Battersea Park Local Nature Reserve – 2.5 ha). Richmond Park is a National Nature Reserve.
- Within Wandsworth there are two Sites of Special Scientific Interest (SSSIs) in Wimbledon Common (NB not all the common is in Wandsworth). Overall the condition of the common is classed as 95% unfavourable recovering and 5% unfavourable no change (2013/14).
- An Air Quality Management Area (AQMA) for the whole of the borough was declared in 2001 for exceedances of the nitrogen dioxide (NO<sub>2</sub>) annual mean air quality objective limit and the daily mean for particulate matter (PM<sub>10</sub>). An Air Quality Action Plan (AQAP) was put in place.
- Levels of NO<sub>2</sub> have been reducing but are still problematic e.g. in Putney High Street where the annual mean objective (40 µg m<sup>-3</sup>) is still being exceeded.
- Measured concentrations of PM<sub>10</sub> (particulates) at Putney High Street (21 µg m<sup>-3</sup>), Battersea (27 µg m<sup>-3</sup>) and Tooting High Street (23 µg m<sup>-3</sup>) still exceeded the World Health organisation (WHO) limit of 20 µg m<sup>-3</sup>.
- There were 168,900 tonnes of the main greenhouse gas carbon dioxide (CO<sub>2</sub>) emitted from road transport in Wandsworth in 2013. Transport is the source of 24% of total CO<sub>2</sub> emissions in Wandsworth, with road transport comprising 79% of transport CO<sub>2</sub>. Around 57% of Wandsworth's ground based transport CO<sub>2</sub> emissions comes from cars, with 15% from buses/coaches, 12% from heavy goods vehicles and 11% from light goods vehicles
- The greatest generators of road traffic noise are major roads such as the A3 and A214.
- There were 98 people killed or seriously injured (KSI) on roads in Wandsworth in 2016. Pedestrians, cyclists or powered two-wheeler riders made up 91% of all KSI casualties. The highest concentrations of casualties are on the main road network.
- Condition of land in Wandsworth is improving, mainly due to site redevelopments, but also a reduction in industrial land use, and improvements in environmental control at industrial/commercial sites.

There are 45 conservation areas within the borough of differing character and sensitivity to change. The Borough has more than 500 buildings, structures or groups of buildings listed as being of special architectural or historic interest. Five buildings are Grade I (of exceptional interest) and a further 40 buildings or structures are Grade II\*. The Council also maintains a local list of other buildings of interest which may be considered for future listing. Data from 2015 indicated 16 buildings as being "at risk".

- Around 45% of the London Borough of Wandsworth is classified as Archaeological Protection Areas (APAs). APAs have been reviewed in 2016 but are not yet adopted.
- Some 147 ha of the borough is designated as Historic Parks and Gardens. These areas have historic layouts and features which make them of special historic interest.
- In 2017/18 94% of principal roads were in satisfactory or better condition, with the corresponding figure for non-principal roads being 96%.
- 99.98% of drinking water was compliant with chemical and microbiological standards when surveyed in 2010/11.
- The condition of the River Wandle improved between 2008 and 2015, according to assessment by the Environment Agency.
- In 2015 there were 32,204 within Flood Zone 3 (1 in 100 or greater annual probability of flooding) and a further 6,084 properties in Flood Zone 2 (between 1 in 100 and 1 in 1000 annual probability of flooding). Some 7,188 properties were at “high risk” of surface water flooding.

Without the Wandsworth LIP, the provisions of the MTS, London Plan and Wandsworth Local Plan would remain, particularly the new development and transport infrastructure planned within and around the Borough. In addition, the Mayor’s strategies and Wandsworth Council plans on issues such as air quality and the environment would still be in place to focus action on these issues in the Borough. However, without the LIP, coordinated action on transport in the Borough and measures to implement the MTS would be impaired. As a result the international, national and London-wide objectives for transport planning might not be effectively pursued. However, the Council is required by legislation to implement a LIP that helps deliver the MTS.

## SEA framework

An SEA framework of objectives has been used to assess the environmental effects of the Wandsworth LIP. The SEA Directive does not specifically require the use of objectives or indicators in SEA, but objectives can usefully demonstrate how environmental effects can be described, analysed and compared. The following SEA objectives were used to assess the Council’s second LIP and have been considered appropriate to use for the third LIP as well:

1. Conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet residents’ needs.
2. Improve local air quality.
3. Minimise emissions of greenhouse gases from transport.
4. Encourage the efficient use of energy and the use of renewable energy.
5. Prevent and control noise nuisances.
6. Reduce road traffic injuries and fatalities.
7. Minimise the impact of transport on soils.
8. Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment
9. Protect, conserve and enhance the existing varied character and heritage of the Borough.
10. Protect assets of economic value.
11. Protect the water environment.
12. Reduce water pollution by reducing traffic volumes and promoting cleaner fuels.
13. Reduce the risk of flooding.

## Consideration of alternatives for the LIP

Given TfL’s comprehensive LIP guidance and the need for the LIP to contribute to a range of defined MTS goals and desired outcomes, the scope for realistic alternatives is quite narrow. Some alternatives approaches/schemes have however been considered and these have been assessed for likely environmental effects, along with the schemes selected for inclusion in the final draft plan.

## Likely Environmental Effects of the Wandsworth LIP

For the purpose of the assessment, the preferred options for transport initiatives within the LIP were grouped under their respective programmes:

- Corridors and Neighbourhoods
- Cycling
- Safety and Vision Zero
- Environment
- Supporting measures.

Assessment matrices were used to determine the significant environmental effects of each preferred LIP option within the Borough's programme as well as the 'alternative' options identified for further consideration. The assessment findings show that the majority of the LIP programme scores positively in relation to the SEA objectives and few adverse environmental effects are anticipated.

The following effects are identified for SEA topic areas:

**Biodiversity, flora and Fauna:** The assessment findings suggest no significant adverse impacts to biodiversity, flora and fauna from the LIP programme. Several initiatives within the LIP programme should help to reduce the proportion of trips undertaken by car and thus reduce pollution which could negatively impact on biodiversity.

**Air Quality:** Encouragement for mode shift and cleaner fuels proposed by the LIP is anticipated to have positive effects for air quality in the Borough.

**Climatic factors:** Similarly, encouragement for mode shift and cleaner fuels proposed by the LIP is anticipated to have positive effects in terms of reducing CO2 emissions from transport.

**Population and Human Health:** Temporary noise impacts from construction activities are anticipated for some schemes within the LIP programme. Overall, the LIP is anticipated to have a small beneficial effect on preventing and controlling noise nuisance, e.g. by encouraging a switch from petrol or diesel to electric vehicles. Schemes in the LIP are anticipated to have a positive impact on road safety, and the LIP adopts the Mayor's Vision Zero aim of eliminating road death and serious injury by 2041.

**Soil Quality:** In some instances there may be minor disturbance of soil and possible low levels of soil sealing from the construction of LIP schemes. However, overall it is anticipated that the LIP programme will have a beneficial effect on soil quality through measures which result in reduced pollution and emissions from road transport.

**Cultural Heritage:** It is likely that the LIP will have a largely neutral effect on heritage assets within the Borough, though transport initiatives within the LIP programme which result in reducing air pollution, traffic volumes and vehicle speeds should prove beneficial in the long term.

**Landscape and townscape:** The assessment findings suggest that the transport initiatives within the LIP, in particular those focused on public realm and streetscape improvements, should have a largely positive effect on landscape and townscape features within the Borough. A small number of proposals may need mitigation as referred to below.

**Material Assets:** The investment proposed within the LIP will help to preserve and enhance important assets within the Borough. Proposals seek to improve the quality of the built environment with neighbourhood and corridor schemes focused on enhancing the public realm and streetscape, junction improvements, walking and cycling improvements, bus infrastructure, landscaping and street tree planting. Future LIP maintenance programmes are subject to funding from TfL.

**Water environment:** It is anticipated that the LIP will have a beneficial effect on the water environment in the Borough, through reduced levels of traffic pollution. Overall the LIP proposals are anticipated to have minimal impact on flooding and flood risk

## Mitigation

A small number of proposals included in the draft LIP have been assessed as having “Negotiable” environmental effects in sensitive locations. These schemes are:

- Cycle Parking
- Cycling schemes
- Redeployable vehicle-activated signs programme
- Electric Vehicle Charging Points

Proposed mitigation generally includes careful design and placement (e.g. for cycle parking and electric vehicle charging infrastructure) as well as appropriate use of materials.

## Monitoring

Monitoring helps to keep track of the actual environmental effects of implementing the Wandsworth LIP. The Wandsworth LIP includes proposals to monitor the performance of the LIP against a range of indicators. SEA monitoring is also proposed within the Environmental Report, and these measures will be confirmed in the SEA Statement following adoption of the final LIP which is anticipated in Spring 2019.

## Commenting on the SEA Environmental Report

Public consultation is a key element of the SEA process. This must be undertaken with Natural England, Historic England and the Environment Agency. The SEA Environmental Report is published for consultation alongside the draft LIP. All comments on the SEA will be reviewed and taken into account prior to publication of the final Wandsworth LIP and the preparation of the final SEA Statement. Comments relating to the content of the Environmental Report should be sent to:

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Principal Transport Planner  
Environment and Services Department  
Wandsworth Council  
The Town Hall  
Wandsworth High Street  
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SW18 2PU

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# 1 Introduction

## 1.1 Background

1.1.1 Under the Greater London Act 1999 each London Borough Council is required to prepare a Local Implementation Plan (LIP) detailing how the authority intends to implement the Mayor of London's Transport Strategy (MTS) within its area. Wandsworth's third LIP contains details of the Borough's transport programmes and funding requirements. It covers the same period as the third MTS (up to 2041) and includes specific delivery proposals for the three year period 2019/20 – 2021/22.

1.1.2 Under European Union Directive 2001/42/EC (the 'SEA Directive'), authorities within the UK must carry out an Strategic Environmental Assessment (SEA) of the effects of a wide range of plans and programmes on the environment. The Directive has been implemented in England through Statutory Instrument 2004 No. 1633 on the Environmental Assessment of Plans and Programmes Regulations 2004 (the 'SEA Regulations'). TfL's LIP guidance indicates that LIPs are considered as falling under the scope of the SEA Regulations.

1.1.3 Article B of the Directive 2001/42/EC requires that the Environmental Report and the results of consultation are taken into account in the decision-making process.

## 1.2 Purpose of the Environmental Report

1.2.1 The Environmental Report is the key output of the SEA. It aims to fully document the details of the SEA process, ensure active and transparent consultation on the draft LIP and show how the SEA Regulations' requirements have been complied with.

1.2.2 This Environmental Report has been made available at the same time as the draft LIP and consultees are encouraged to present their views on both documents.

## 1.3 SEA Process to Date

1.3.1 The Council consulted the Environment Agency, Historic England and Natural England on the proposed scope of the SEA. Given the similarities between the process for second and third LIPs, and short timescales for production of the draft LIP, a full new scoping report was not produced. The Council wrote to these three statutory bodies proposing that the SEA Environmental Report should cover the same general scope and methodology as that undertaken for the second LIP.

1.3.2 Table 1.1 provides a summary of the responses in response to this proposed approach, indicating how specific comments have been taken into account in the preparation of this Environmental Report.

Table 1.1: Response from Statutory Bodies to the Proposed Scope of the SEA

<b>Respondent</b>	<b>Summary of Comments Received</b>	<b>How comments have been taken into account</b>
Environment Agency	No response received.	N/A
Historic England (Historic Environment Planning Advisor)	<p>Did not considered this approach to represent an SEA scoping and requested that a new scoping exercise was undertaken.</p> <p>Also included some general advice and guidance to ensure that the historic environment was considered in the process, including a checklist of advice (Appendix 1 to this document).</p>	<p>Although no new scoping exercise was carried out, in line with the SEA directive Historic England was consulted on the proposed scope of the SEA.</p> <p>Baseline data has been updated and Historic England's feedback and advice has influenced the final scope of the SEA, enabling the historic environment to be considered fully in this SEA Environmental Report.</p>
Historic England (Archaeology Advisor – additional non-statutory response)	<p>Referred to the SEA Environmental Report from the second LIP which updated the scoping report by including a revised objective relating to heritage assets and the historic environment. Considered that this should be reflected in the third LIP's SEA.</p> <p>Noted that the borough's Archaeological Protection Areas (APAs) have been reviewed in 2016 and the revised version should be referenced.</p> <p>Suggested the Greater London Historic Environmental Record should also be identified as a source of additional information, as it is likely that individual archaeological records could require detailed consideration.</p>	<p>Table 3.1 reflects this approach.</p> <p>The new APAs have been referred to in Table 3.1 and will be considered where appropriate as schemes in the LIP are brought forward. It is noted that the revised APA list is not yet adopted.</p> <p>The Greater London Historic Environmental Record has not been explicitly referenced given the high-level and strategic nature of the SEA. However, the Council's conservation team will be consulted on the LIP and this SEA Environmental Report to ensure appropriate consideration of local historic/archaeological issues.</p>
Natural England	Stated that they had no comment to make on Wandsworth's LIP.	N/A

## 2 Wandsworth's Third Local Implementation Plan

### 2.1 Background to the LIP

2.1.1 Wandsworth Council's LIP sets out the Council's objectives for transport in the borough and how these relate to the MTS. In addition, the document identifies the transport programme and schemes for implementation in the years 2019/20 – 2021/22. Borough progress and revisions to their TfL funding requirements are submitted to TfL annually.

2.1.2 The Wandsworth LIP initially outlines the local transport challenges and opportunities before identifying a range of objectives and transport initiatives to deliver them.

2.1.3 For the purpose of the SEA assessment, the preferred options for transport initiatives within the LIP have been grouped under their respective programmes:

- Corridors and Neighbourhoods
- Cycling
- Safety and Vision Zero
- Environment
- Supporting measures.

2.1.4 Wandsworth is the ninth most populated borough in Greater London (Office for National Statistics (ONS) Mid-2017 Population Estimates) and is the largest of the 12 Inner London boroughs, occupying an area of 34 sq. km. In the west, it extends to the edge of Richmond Park and Wimbledon Common. While much of Wandsworth is densely populated, almost one quarter (23%) is open space made up of commons, district/local parks and playing fields. Much of the borough and its heritage of buildings and spaces are of particularly distinctive character, and there are 45 conservation areas.

2.1.5 Administratively, the borough is made up of 20 Wards. The London boroughs of Lambeth, Merton and Richmond upon Thames and the Royal Borough of Kingston upon Thames border Wandsworth south of the River Thames, while borders across the Thames to the north are shared with the London Borough of Hammersmith and Fulham, the Royal Borough of Kensington and Chelsea, and the City of Westminster. Parts of the borough therefore share characteristics with central and west London. Wandsworth's location in Greater London is shown in Figure 1.

Figure 1: Wandsworth's Location in Greater London



- 2.1.6 The population of Wandsworth as of 2017 is estimated to be 323,300 (ONS Mid-2017 Population Estimates), in 137,100 households (GLA 2016-based Demographic Projections). Wandsworth is a popular, largely residential borough with many different types of housing, from the leafy suburbs of Putney to the inner-city housing estates of North Battersea. Wandsworth remains a 'collection' of districts giving different characters and identity to each local area. The settlement pattern, coupled with its location on main commuter routes into central London, determines the borough's transport needs, problems and opportunities.
- 2.1.7 The five town centres of Tooting, Putney, Wandsworth, Clapham Junction and Balham provide employment, shopping and leisure activities. Though focused in the town centres, businesses are spread across many parts of the borough. Overall 145,000 people are employed in Wandsworth (ONS 2016 Jobs Density)
- 2.1.8 Population and jobs are forecast to continue growing. Population is expected to increase by 24% by 2041, to 401,600 (GLA 2016-based Demographic Projections), and the number of jobs in the borough is set to rise by 12% over the same period, to 162,000 (GLA Economics 2017 Employment Projections). At Nine Elms, a new community and town centre is taking shape which will eventually have 20,000 new homes and create 25,000 permanent jobs. As well as attracting the likes of Apple UK and the American Embassy to the borough, Nine Elms is bringing wider improvements including two new tube stations, improvements to nearby rail stations, new river services, a 12-acre linear park and a new stretch of Thames River path. The Council is also overseeing major improvements at Wandsworth town centre, Roehampton, including the Alton estate, and the Winstanley and York Road estates in Battersea.
- 2.1.9 There are approximately 440 km of roads in the borough. Some 33.5 km of highway are designated as part of the Transport for London Road Network (TLRN) and are subject to Red Route controls, including the A205 (South Circular Road), A3/A3205, and A24. TfL is responsible for the TLRN and for the side road Red Route extensions from the TLRN. The Council is the Highway Authority for all other public roads within the borough. Approximately 9km of borough roads have been designated as Strategic Roads by the Secretary of State for Transport. These roads are A219 Tippet's Ride-Putney Hill-Putney High Street-Putney Bridge; A217 Merton Road-Garratt Lane-Bridgend Road-Wandsworth Bridge; and Chelsea Bridge-Queenstown Road (to its junction with Battersea Park Road).
- 2.1.10 The road network is constrained by the River Thames and River Wandle, the railways and protected open space. There are five Thames road bridges, two of which - Putney Bridge and Wandsworth Bridge - are the responsibility of the Council. Chelsea Bridge and Albert Bridge are managed by the Royal Borough of Kensington and Chelsea. Battersea Bridge is part of the TLRN and is the responsibility of TfL. The River Wandle that divides the borough north to south has only four road crossings in the borough, restricting movement east to west.
- 2.1.11 Road freight is encouraged to use the Strategic Road Network during the daytime. The night-time and weekend London Lorry Control Scheme operates on most roads in the borough, restricting noise pollution in residential areas.
- 2.1.12 Wandsworth's public transport network is controlled by other agencies, e.g. TfL, train operators and Network Rail. While the borough is generally well served by bus services, some areas are relatively remote from the bus network and some journeys are difficult to make directly by bus (e.g. Balham to Wandsworth Town). The lack of nearby rail or London Underground services makes Roehampton dependent on buses for public transport.
- 2.1.13 The borough is served by national rail links to Victoria and Waterloo through Clapham Junction, the busiest railway station in the country. London Underground services are provided by the Northern and District lines, and the Overground runs via Clapham Junction, clockwise through Willesden Junction to Stratford and anti-clockwise through Peckham and east London.

- 2.1.14 Crowding is a common issue on public transport services within the borough. Population and employment growth, and the Mayor's ambitions to reduce car use, are likely to put increased pressure on the network.
- 2.1.15 The Northern Line extension, serving Nine Elms and Battersea Power Station, is scheduled to open in 2020, thereby improving rail links in the north east of the borough. In the longer term, Crossrail 2 has the potential to ease crowding on some local routes, with the Council's preferred option being for new stations at Clapham Junction and Tooting, though a final decision is awaited on whether the route would run via Balham instead of Tooting. However, these improvements (Figure 3) will only cater for some journeys. Across the borough, bus and rail services will need to offer more capacity and better reliability. Along the River Thames, there is also scope for enhancements to existing riverbus services to serve the growing population in riverside developments. The river is also used for some freight transport, notably the transport of waste.
- 2.1.16 Opportunities for cycling are growing. In addition to the highway network there are more than 8km of off-road cycle routes and paths in the borough, passing through parks and along the riverside. New Quietway cycle routes are being delivered as part of a Londonwide network, and Cycle Superhighway routes 7 and 8 run through the borough to central London from Tooting and Wandsworth respectively.
- 2.1.17 The borough also includes an extensive network of footpaths adjacent to the highway network and numerous public footpaths utilising green corridors. Two of the six London strategic walking routes, the Thames Path and the Capital Ring, pass through the borough. Other traffic-free walking opportunities are afforded by the Wandle Trail and routes passing through the borough's parks and commons.
- 2.2 Objectives of the LIP**
- 2.2.1 In drafting LIP objectives the Council was steered by LIP guidance and the need to contribute to meeting the nine strategic outcomes set out in the MTS, as well as achieving the overarching aim of mode shift, so that 80% of all trips in London are made by walking, cycling or public transport by 2041.
- 2.2.2 The set of objectives included in the draft LIP and their relationship to the MTS outcomes are shown in Table 2.1.

Table 2.1: Summary of Draft LIP Objectives

<b>MTS Outcomes</b>	<b>Wandsworth LIP Objectives</b>	
Overarching: Mode Shift	MS1	To facilitate a higher proportion of travel on foot by creating more attractive and convenient conditions for walking boroughwide, with a particular focus on town centres
	MS2	To facilitate a higher proportion of travel by bicycle by creating more attractive and convenient conditions for all types of cyclists, especially on corridors with highest potential demand, making use of traffic-free spaces
	MS3	To focus on transferring short car trips to walking and cycling, including for journeys to and from school
	MS4	To give more people confidence to cycle through supporting measures such as cycle training, and provision of more and better cycle parking
	MS5	To support the delivery of rail-based public transport improvements including the Northern Line Extension to Battersea and Crossrail 2 through Clapham Junction and Tooting Broadway or Balham
	MS6	To improve bus journey speeds and reliability, particularly on key corridors
	MS7	To improve public transport interchange by providing better access to stations and bus stops, and improving the waiting environment at stations, town centres and other key locations
	MS8	To increase awareness of transport choices and their impacts

MTS Outcomes	Wandsworth LIP Objectives	
	MS9	To reduce private motorised traffic, including through the use of new technology and innovation
	MS10	To work with partners including TfL, public transport operators, developers and others to deliver these objectives
No 1:-Active	MTS1a	To adopt the Healthy Streets Approach and consider the Healthy Streets indicators in the planning and delivery of infrastructure changes
	MTS1b	To implement the Wandsworth Cycling Strategy, and review it regularly in line with the Healthy Streets approach
	MTS1c	To limit the speed and volume of traffic on residential streets, to make them more pleasant for walking and cycling
	MTS1d	To develop healthy, safe and accessible routes to key destinations – stations, town centres, schools – to enable people to walk or cycle more often
	MTS1e	To develop and promote traffic-free routes including through open spaces as part of the transport network
No 2:- Safe	MTS2a	Focus on reducing vulnerable road user casualties, through street design and reduction of danger from vehicles, especially HGVs
	MTS2b	Work in partnership with the Police, TfL and other agencies to support the boroughwide 20mph limit, review its effectiveness and potentially expand to more roads including parts of the TLRN
	MTS2c	Regularly assess and address collision hotspots through infrastructure improvements, taking a road danger reduction approach to design
	MTS2d	Work with residents to gather information on perceived safety and security issues so that improvements can be made
	MTS2e	Empower people with the skills they need so they can make safe decisions for themselves and others while travelling by all modes of transport
	MTS2f	Reduce fear of crime by adopting the Healthy Streets approach to design of public spaces
No 3:-Efficient	MTS3a	Improve access to town centres, schools and other major trip attractors by non-car modes
	MTS3b	Reduce rat-running on residential streets, thereby improving conditions for walking and cycling
	MTS3c	Reduce travel by car by working with schools and employers, including through travel plans and the provision of facilities to support non-car travel
	MTS3d	Promote and enable car-free or car-lite living through planning policies and the provision of car clubs
	MTS3e	Use parking policies to manage the supply and demand for car parking
	MTS3f	Implement and expand CPZs in the borough where they are proposed and supported by local residents
	MTS3g	Work with freight and delivery firms to develop measures and practice that reduce the impact of freight activity along major roads and in town centres
	MTS3h	Promote and enable best practice for deliveries e.g. through local consolidation centres and last-mile bicycle/low emission delivery
No 4:- Clean & Green	MTS4a	Implement the Air Quality Action Plan
	MTS4b	Monitor and review air quality especially in the five focus areas of Putney, Wandsworth, Clapham Junction, Tooting and York Road
	MTS4c	Introduce measures to complement the expansion of the ULEZ to the A205/A3 South Circular in 2021
	MTS4d	Expand electric vehicle charging infrastructure for both residential use and rapid charging to support ZEC taxis and commercial vehicles

<b>MTS Outcomes</b>	<b>Wandsworth LIP Objectives</b>	
	MTS4e	Reduce the environmental impact of freight transport
	MTS4f	Promote the use of EVs including through best practice in greening the Council fleet
	MTS4g	Use trees and other green infrastructure such as green walls to improve the street environment and reduce levels of pollution
	MTS4h	Lead in the use of new technology and innovation to improve air quality
No 5:- Connected	MTS5a	Support TfL, Network Rail and train operators to improve public transport across the borough, including the introduction of the Northern Line Extension in 2020 and Crossrail 2 in the 2030s
	MTS 5b	Work in partnership with TfL to regularly review bus operations within the borough to ensure capacity meets potential demand
No 6:- Accessible	MTS6a	Work with TfL, train operators and Network Rail to introduce step-free access at stations
	MTS6b	Ensure that all new and relocated bus stops are accessible, and keep other stops under review
	MTS6c	Work with public transport providers to improve the public transport waiting environment including provision of information for passengers
	MTS6d	Review and improve interchange at key locations, including bus-bus interchange where routes intersect
	MTS6e	Develop healthy and accessible routes to stations
	MTS6f	Improve cycle parking at public transport hubs and interchanges
No 7:- Quality	MTS7	Improve bus speeds through traffic management (e.g. bus priority, parking/loading controls) at key locations (corridors/junctions) where buses are delayed the most
No 8:- Sustainable Growth	MTS8	To support active, efficient and sustainable travel at new developments through planning policies in the Local Plan.
No 9:- Unlocking	MTS9	Use the Northern Line Extension, Crossrail 2 and other new transport infrastructure and services as catalysts for development.

## 2.3 Relationship to other relevant plans and programmes

- 2.3.1 The SEA Directive indicates that the Environmental Report should provide information on the LIP's relationship with other relevant plans and programmes as well as the environmental protection objectives established at International, European or National level.
- 2.3.2 A comprehensive review of environmental plans at national and international level was undertaken by TfL for the third Mayor's Transport Strategy. As the LIP is an implementation plan that must be in line with the MTS, it is not considered necessary to repeat that review here.
- 2.3.3 Relevant London-wide and local plans and programmes with environmental protection aims or influence on the environment, including transport, are listed in Table 2.2, along with how the key objectives or requirements are or will be met locally. Generally, the policies and plans relate to the protection of one or more of the SEA topic areas described in the following section, and support each other in protecting and enhancing the environment.

Table 2.2: Relevant Londonwide and Local Plans

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
<b>Londonwide Plans/Programmes</b>		
<p>Mayor’s Transport Strategy 2018</p>	<p>The MTS details policies and proposals with the overarching aim that by 2041 80% of all trips in London will be made on foot, by cycle or by public transport, compared to 63% today. It sets out nine desired outcomes under three MTS goals, as follows:</p> <p>MTS goal: Healthy Streets and healthy people, including traffic reduction strategies</p> <ul style="list-style-type: none"> <li>• London’s streets will be healthy and more Londoners will travel actively</li> <li>• London’s streets will be safe and secure</li> <li>• London’s streets will be used more efficiently and have less traffic on them</li> <li>• London’s streets will be clean and green</li> </ul> <p>MTS goal: A good public transport experience</p> <ul style="list-style-type: none"> <li>• The public transport network will meet the needs of a growing London</li> <li>• Public transport will be safe, affordable and accessible to all</li> <li>• Journeys by public transport will be pleasant, fast and reliable</li> </ul> <p>MTS goal: New homes and jobs</p> <ul style="list-style-type: none"> <li>• Active, efficient and sustainable travel will be the best option in new developments</li> <li>• Transport investment will unlock the delivery of new homes and jobs</li> </ul>	<ul style="list-style-type: none"> <li>• The LIP describes how the MTS will be implemented at a local level.</li> </ul>
<p>London Plan 2010 (including suggested changes 2015) and new</p>	<p>The London Plan provides a framework for land-use management, development and regeneration in London.</p>	<ul style="list-style-type: none"> <li>• The LIP takes due consideration of the adopted and draft London Plans. Much of the response to the London Plan, including how the Council will deliver Good Growth as</li> </ul>

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
London Plan (draft) 2018	<p>Priorities of the existing plan include:</p> <ul style="list-style-type: none"> <li>• Accommodate London’s growth within its boundaries without encroaching on open spaces.</li> <li>• Make London a better city for people to live in.</li> <li>• Make London a more prosperous city with strong and diverse economic growth.</li> <li>• Promote social inclusion and tackle deprivation and discrimination.</li> <li>• Improve London’s accessibility.</li> <li>• Make London a more attractive, well-designed and green city.</li> </ul> <p>A draft new London Plan was published in 2018, and is closely linked to the Mayor’s Transport Strategy.</p>	<p>envisaged in the draft London Plan 2018, will be via Wandsworth’s Local Plan, which is currently being reviewed.</p> <ul style="list-style-type: none"> <li>• The draft London Plan’s links to the MTS mean that it is reflective of the policies that have been considered in the development of the LIP, including support for development in areas accessible by walking, cycling or public transport. The plan identifies five Air Quality Focus Areas – defined as areas with both high levels of NOx and high human exposure – in the town centres of Clapham Junction, Putney, Tooting and Wandsworth, and in York Road. These are referred to in the LIP.</li> </ul>
London Environment Strategy 2018	<p>This integrated strategy covers seven areas:</p> <ul style="list-style-type: none"> <li>• air quality <ul style="list-style-type: none"> <li>○ including an aim for London to have the best air quality of any major world city by 2050</li> <li>○ emphasises the Healthy Streets Approach as a means of improving air quality through a reduction in car trips</li> <li>○ includes a road map to zero emissions from road transport by 2050</li> <li>○ introduction of the Ultra Low Emission Zone and phasing out the use of fossil fuels in the transport system</li> </ul> </li> <li>• green infrastructure <ul style="list-style-type: none"> <li>○ including an aim for London to be the world’s first National Park City, where more than half of its area is green, where the natural environment is protected, and where the network of green infrastructure is managed to benefit all Londoners.</li> <li>○ a key element will be to use the planning</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• These environmental issues are largely considered in the Wandsworth plans and programmes listed below, as well as the LIP. Relevant plans include (amongst others) the Local Plan, Air Quality Action Plan, Sustainable Community Strategy, Parks Management Strategy, Borough Tree Strategy and Local Flood Risk Management Strategy.</li> </ul>

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
	<p>system to protect London's biodiversity, offsetting any reductions caused by new developments, that cannot be mitigated on site, with increases elsewhere.</p> <ul style="list-style-type: none"> <li>• climate change mitigation and energy <ul style="list-style-type: none"> <li>○ including an aim for London to be a zero carbon city by 2050, with energy efficient buildings, clean transport and clean energy</li> <li>○ includes making new developments zero carbon from 2019, with clean supplies of energy and high energy efficiency designed in from the start</li> </ul> </li> <li>• waste <ul style="list-style-type: none"> <li>○ including an aim to make London a zero waste city, with . By 2026 no biodegradable or recyclable waste sent to landfill by 2026 and 65 per cent of London's municipal waste to be recycled by 2030</li> <li>○ includes promoting shared waste collection services so there are fewer vans congesting and polluting London's streets</li> </ul> </li> <li>• adapting to climate change <ul style="list-style-type: none"> <li>○ including aims for London and Londoners to be resilient to severe weather and longer-term climate change impacts</li> <li>○ a key element will be using the planning system to make new developments more water efficient and able to combat increased temperatures and flood risk</li> </ul> </li> <li>• ambient noise <ul style="list-style-type: none"> <li>○ including an aim to improve Londoners' quality of life by reducing the number of people adversely affected by noise and promoting more quiet and tranquil spaces</li> <li>○ one element will be the approach to reducing traffic and car use in the Mayor's Transport</li> </ul> </li> </ul>	

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
	<p>Strategy, which will lead to less noise</p> <ul style="list-style-type: none"> <li>• low carbon circular economy <ul style="list-style-type: none"> <li>○ The Mayor aims for London to transition to a low carbon circular economy.</li> </ul> </li> </ul>	
<p>London Housing Strategy 2018</p>	<p>The five priorities of the strategy are</p> <ul style="list-style-type: none"> <li>• building homes for Londoners;</li> <li>• delivering genuinely affordable homes;</li> <li>• high quality homes and inclusive neighbourhoods;</li> <li>• a fairer deal for private renters and leaseholders; and</li> <li>• tackling homelessness and helping rough sleepers.</li> </ul> <p>The strategy says housing needs should be met while protecting the Green Belt and open spaces. It identifies the importance of transport to support new housing, and states that potential housing benefits should be a key determinant of which transport schemes and projects are supported and funded in the future.</p>	<ul style="list-style-type: none"> <li>• Transport's role in supporting new housing is included in the LIP. Delivering Good Growth including new housing will be considered fully in the updated Wandsworth Local Plan, which is currently being reviewed</li> </ul>
<p>Economic Development Strategy for London (draft) 2017</p>	<p>The draft strategy stresses the importance of ensuring there is adequate transport capacity to cater for growth in the capital. The strategy also further emphasis the need for growth to be sustainable, and reiterates the Mayor's goal for London to be a zero-carbon city by 2050. The plan includes a commitment of support for high streets and town centres, including improving public transport connections and the public realm, making walking and cycling more appealing.</p>	<ul style="list-style-type: none"> <li>• Transport elements of the strategy are supported via the LIP and other elements via relevant local plans/programmes listed below (e.g. Local Plan, Corporate Business Plan)</li> </ul>
<p>Culture Strategy for London (draft) 2018</p>	<p>One of the draft strategy's four priorities is Culture and Good Growth – supporting, saving and sustaining cultural places and spaces. The strategy highlights the link between culture and public space, and urges that public art is considered as part of</p>	<ul style="list-style-type: none"> <li>• Primarily via the Local Plan and also via the LIP.</li> </ul>

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
	public realm improvements. It also urges that consideration is given to the impact transport projects have on existing culture/ heritage places and spaces.	
A Tourism Vision for London 2017	This document encourages making improvements to London's public realm in order to reduce congestion and improve the visitor experience.	<ul style="list-style-type: none"> <li>Primarily via the LIP and Local Plan, e.g. in considering the needs of many tourists welcomed to Wandsworth throughout the year, ranging from people attending events at Battersea Park, to crowds arriving in Southfields for the Wimbledon tennis championships</li> </ul>
<b>Local Wandsworth Plans/Programmes</b>		
Wandsworth's Local Plan	<p>The current Local Plan (as of November 2018) includes the Core Strategy, setting out a spatial vision for Wandsworth and a strategy for how this vision will be achieved sustainably. The Development Management Policies Document (DMPD) and Site Specific Allocations Document (SSAD) support the strategic objectives set out in the Core Strategy.</p> <p>Transport runs through many parts of the Local Plan and the plan supports numerous aspects of the MTS, for example in ensuring that developments, particularly large trip generating developments, are sited in locations that are accessible by public transport, on foot and by cycle.</p> <p>The plan also requires development proposals to be accompanied by robust Transport Assessments, and for adverse transport impacts of developments to be mitigated (e.g. through infrastructure, and the use of travel plans, construction management plans and servicing plans, where appropriate).</p> <p>The plan includes maximum car parking standards to discourage car use at new developments, and provision of cycle parking is according to minimum standards.</p>	N/A – see left.

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
	Work has begun on a new Local Plan for Wandsworth but this is not expected to be adopted until autumn 2021.	
Wandsworth's Corporate Business Plan 2018	<p>The Corporate Business Plan reflects resident priorities, and other significant policy developments or commitments within the Council. The six strategic objectives (and sub-objectives) in the plan reflect the Council's priorities and its ongoing corporate ambition to deliver high quality, value for money services:</p> <ul style="list-style-type: none"> <li>• Providing the best start in life</li> <li>• Cleaner, safer, better neighbourhoods</li> <li>• More homes and greater housing choice</li> <li>• Helping people get on in life</li> <li>• Encouraging people to live healthy, fulfilled and independent lives</li> <li>• Value for money.</li> </ul>	N/A – see left.
Wandsworth's Air Quality Action Plan 2016-2021	The whole of the borough of Wandsworth has been declared an Air Quality Management Area. The AQAP plan includes a large number of transport-related and other actions aiming to reduce harmful emissions, a theme that is consistent with the MTS and the objectives and measures proposed in the LIP, e.g. reducing use of fossil fuels for transport, encouraging and enabling mode shift to walking and cycling, etc.	N/A – see left.
Active Wandsworth Strategy 2017-2022	The strategy includes numerous transport-related objectives, mainly around active travel (walking and cycling) which is a key theme of the Healthy Streets concept that runs through the MTS and the LIP.	N/A – see left.
Wandsworth Joint Health and Wellbeing Strategy 2015-2020	This strategy includes promotion of active travel, in line with the direction of travel sought by the Mayor in the MTS. Under the Healthy Places priority (Urban Design) the strategy also refers to design of the	N/A – see left.

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
	urban environment in order to promote physical activity and offer opportunities to increase social interaction and community involvement.	
Wandsworth Parks Management Strategy 2011-2020	<p>Identifies three key strategic aims which will assist in achieving the overall vision of the strategy, to deliver the vision of “a place with excellent and diverse parks and green spaces that everyone can enjoy and visit”.</p> <p>There are also detailed management plans for individual parks which are in the process of being updated.</p>	N/A – see left.
Wandsworth Borough Tree Strategy 2001	<p>Includes an Action Plan for Trees, the 19 actions including;</p> <ul style="list-style-type: none"> <li>• Prevent unnecessary loss of trees</li> <li>• Increase community involvement in tree care</li> <li>• Encourage recycling of tree waste</li> <li>• Encourage tree planting</li> <li>• Produce best practice guidance</li> <li>• Promote awareness of trees through environmental education.</li> </ul> <p>A revised version of the strategy is in development.</p>	N/A – see left.
Wandsworth Surface Water Management Plan 2012	Outlines a surface water management strategy for the borough.	N/A – see left.
Wandsworth Local Flood Risk Management Strategy 2016	Outlines the duty of the Council to coordinate flood risk management within the Borough. The strategy’s aim is to set out the approach to managing flood risk from local sources (i.e. surface water, groundwater and ordinary watercourses) in the short and longer term, with proposals for actions that will help to manage the risk in a way that delivers the greatest benefit to its residents, businesses and the environment.	N/A – see left.

Plan or Programme	Key Objective or Requirements	How objective or requirement is being targeted at local level
River Wandle Catchment Management Plan	<p>The plan has four aims:</p> <ul style="list-style-type: none"> <li>• Habitat and wildlife: the river supports a mosaic of habitats with high biodiversity</li> <li>• Water: plentiful and clean, and varied in its flow speeds, widths and depths</li> <li>• Good access: sympathetically managed pathways along the whole river</li> <li>• Engagement: everyone in the catchment aware of the river and knowing how their actions can affect it. Councils, businesses, government agencies and the public working together for the river</li> </ul>	N/A – see left.
Beverley Brook Catchment Plan 2018 (emerging document)	The plan's aim is for a clean river, with rich habitats and biodiversity, that is a resource for an engaged local community	N/A – see left.
Western Riverside Waste Authority Joint Waste Policy Statement	Among its aims this policy seeks to achieve a continued reduction in the amount of waste produced, and an increase in the amount of waste that is re-used, while minimising disruption to others.	N/A – see left.

## 3 Baseline and Context

### 3.1 Introduction

3.1.1 The SEA Directive requires that the current state of the environment, and its likely evolution without the implementation of the plan, be described. The following sections provide a description of the environment in Wandsworth in terms of the individual SEA topic areas and give an indication of future trends taking account of other London-wide and local initiatives which may affect the Borough.

3.1.2 The following topic areas have been considered as required by the SEA Regulations:

- Biodiversity;
- Fauna;
- Flora;
- Air;
- Climatic Factors;
- Soil;
- Water;
- Population;
- Human Health;
- Landscape;
- Cultural heritage, including architectural and archaeological heritage; and
- Material assets.

### 3.2 Environmental baseline

3.2.1 The use of baseline environmental data provides the basis for prediction and monitoring of environmental effects, and helps to identify problems and alternative ways of dealing with them.

3.2.2 Table 3.1 summarises the environmental baseline for Wandsworth, as well as the likely influence of the LIP.

3.2.3 Without the Wandsworth LIP, the provisions of the MTS, London Plan and Wandsworth Local Plan would remain, particularly the new development and transport infrastructure planned within and around the Borough. In addition, the Mayor's strategies and Wandsworth Council plans on issues such as air quality would still be in place to focus action on these issues in the Borough. However, without the LIP, coordinated action on transport in the Borough and measures to implement the MTS would be impaired. As a result the international, national and London-wide objectives for transport planning might not be effectively pursued.

3.2.4 However, the Council is required by legislation to implement a LIP that helps deliver the Mayor's Transport Strategy, so a detailed assessment of changes to baseline conditions in the absence of a LIP is not included here, as this situation cannot arise.

Table 3.1: Wandsworth’s Environmental Baseline, and Likely Influence of the LIP

Environmental Indicator	Environmental Baseline	Likely Influence of the LIP
<p>Biodiversity, Flora and Fauna</p>	<p>Some 818 ha of the borough is designated as Sites of Importance for Nature Conservation (SINCS). This comprises Sites of Metropolitan Importance: 4 (424 ha), Sites of Borough Importance Grade I: 9 (164 ha), Sites of Borough Importance Grade II: 17 (202 ha), Sites of Local Importance: 8 (28 ha).</p> <p>287 ha are designated as Areas of Biodiversity Importance.</p> <p>Considering Special Areas of Conservation (SACs), part of Wimbledon Common is within Wandsworth, while Richmond Park is just across the borough boundary.</p> <p>There is one Local Nature Reserve (Battersea Park Local Nature Reserve – 2.5 ha). Richmond Park (just outside the borough boundary) is a National Nature Reserve.</p> <p>Within Wandsworth there are two Sites of Special Scientific Interest (SSSIs) in Wimbledon Common (NB not all the common is in Wandsworth). Overall the condition of the common is classed as 95% unfavourable recovering and 5% unfavourable no change (2013/14).</p>	<p>The main adverse transport impacts on biodiversity, flora and fauna are construction of new infrastructure (e.g. roads) and the impact of pollution, which may be from tailpipe or other sources (e.g. brakes, tyre friction).</p> <p>No new roads are proposed in the LIP. Any other major infrastructure mentioned in LIP (e.g. Crossrail 2) would be subject to its own environmental assessment to ensure there are no adverse impacts on biodiversity, flora and fauna, or that any adverse impacts can be mitigated.</p> <p>Because the LIP aims to achieve mode shift from car and encourage cleaner vehicles, in line with the MTS, it should not have a negative impact on biodiversity, flora and fauna.</p>
<p>Air Quality</p>	<p>An Air Quality Management Area (AQMA) for the whole of the borough was declared in 2001 for exceedances of the nitrogen dioxide (NO<sub>2</sub>) annual mean air quality objective limit and the daily mean for particulate matter (PM<sub>10</sub>). An Air Quality Action Plan (AQAP) was put in place detailing the actions the Council would be taking to reduce pollutant concentrations to below the objective limits. Many of these actions have been completed and a new AQAP was written and adopted in 2016.</p> <p>NO<sub>2</sub>: recorded annual means at all nitrogen dioxide monitoring sites were lower in 2017 than in the previous year 2016. There have been significant reductions in nitrogen dioxide in Putney High Street, but the annual mean objective (40 µg m<sup>-3</sup>) is still being exceeded. The 1-hour mean air quality objective (200 µg m<sup>-3</sup> not to be exceeded more than 18 times a year) was met at the air quality monitoring station adjacent to the façade of the buildings in Putney High Street for in 2017, recording 9 exceedances. In</p>	<p>The main transport air pollutants in Wandsworth are produced primarily by road traffic, either on high speed routes such as the A214 or in congested areas such as the five air quality focus areas.</p> <p>Improvements in air quality in Putney High Street have coincided with the introduction of cleaner buses and a low emission bus zone.</p> <p>The LIP’s emphasis on mode shift from car and towards cleaner vehicles should lead to improvements in air quality, as suggested by evidence from Putney High Street.</p>

	<p>comparison there were 403 exceedances in 2016 and 1726 in 2012. The 1-hour mean air quality objective was met at all other locations where monitored.</p> <p>Particulate Matter (PM10): In 2017 the annual mean objective for PM10 (<math>40 \mu\text{g m}^{-3}</math>) was met at all monitoring stations, however the measured concentrations at Putney High Street (<math>21 \mu\text{g m}^{-3}</math>), Battersea (<math>27 \mu\text{g m}^{-3}</math>) and Tooting High Street (<math>23 \mu\text{g m}^{-3}</math>) still exceeded the World Health Organisation (WHO) limit of <math>20 \mu\text{g m}^{-3}</math>.</p> <p>The 24-hour mean objective for PM10 (<math>50 \mu\text{g m}^{-3}</math> not to be exceeded more than 35 times a year) was met at all monitoring stations within the borough. The number of exceedances of the 24-hour mean in Battersea reduced considerably to 16 in 2017, from 43 in 2016.</p>	
Climate change	<p>Data provided by TfL for LIP preparation indicates that there were 168,900 tonnes of the main greenhouse gas carbon dioxide (<math>\text{CO}_2</math>) emitted from road transport in Wandsworth in 2013.</p> <p>The latest (interim) data for 2016 from the London Energy and Greenhouse Gas Inventory (LEGGI) shows that transport is the source of 24% of total <math>\text{CO}_2</math> emissions in Wandsworth, with road transport comprising 79% of transport <math>\text{CO}_2</math>. Around 57% of Wandsworth's ground based transport <math>\text{CO}_2</math> emissions came from cars, with 15% from buses/coaches, 12% from heavy goods vehicles and 11% from light goods vehicles.</p>	<p>The LIP's emphasis on mode shift from car and towards cleaner vehicles (including goods vehicles and buses) should lead to reductions in <math>\text{CO}_2</math> from transport.</p>
Population and Health: Noise	<p>Road traffic noise levels away from major roads tend to be below 60 dB(A). The greatest generators of road traffic noise are the A3 and A214. Noise levels tend to fall rapidly with distance from the road in built up environments. However, noise levels remain relatively high with distance from the road over open space such as Clapham Common and Wimbledon Park.</p> <p>Aircraft noise affects Wandsworth as the Borough is due east of the southern runway at Heathrow.</p>	<p>The LIP's emphasis on mode shift from car to the quiet modes of walking and cycling should lead to reductions in road traffic noise. Further, LIP objectives and proposals that encourage electric vehicles in preference to those fuelled by petrol or diesel will result in improved noise levels.</p> <p>The future use of Heathrow airport is a national and regional issue, not within the scope of the LIP.</p>
Population and Health: Road Traffic Collisions	<p>Data provided by TfL for LIP preparation showed there were 98 people killed or seriously injured (KSI) on roads in Wandsworth in 2016.</p> <p>In common with London as a whole, vulnerable road users account for the majority of deaths and serious injuries from road collisions in the borough. In 2016 KSI casualties who were pedestrians, cyclists or</p>	<p>The LIP includes objectives and measures aiming to achieve road casualty reduction, including the Mayor's Vision Zero of there being no people killed or seriously injured on London's roads by 2041. It is therefore expected that the LIP will have a positive impact in this area.</p> <p>It will however be challenging to</p>

	<p>powered two-wheeler riders made up 91% of all KSI casualties. The proportion of total KSI casualties who are pedestrians, cyclists or powered two-wheeler riders has been steadily growing as improvements to vehicle safety have helped protect occupants of vehicles.</p> <p>The highest concentrations of casualties are on the main road network.</p>	<p>achieve while increasing mode share of some of the most vulnerable road users.</p>
Soil	<p>The majority of Wandsworth's underlying geology is clay, with superficial deposits of gravel/sands and alluvial/silt from historic and existing floodplains. Little detailed information on soil type, quality and condition is available. However, London Plan data suggests that much of Wandsworth's soil is acidic, which may in part relate to pollution from historic land uses and development, with wet soil adjacent to watercourses. Condition of land in Wandsworth is improving, mainly due to site redevelopments, but also a reduction in industrial land use, and improvements in environmental control at industrial/commercial sites.</p>	<p>The main adverse transport impacts on soils are construction of new infrastructure (e.g. roads) and the impact of pollution, which may be from tailpipe or other sources (e.g. brakes, tyre friction).</p> <p>No new roads are proposed in the LIP. Any other major infrastructure mentioned in LIP (e.g. Crossrail 2) would be subject to its own environmental assessment to ensure there are no adverse impacts on soils, or that any adverse impacts can be mitigated.</p> <p>Because the LIP aims to achieve mode shift from car and encourage cleaner vehicles, in line with the MTS, it should not have a negative impact on soils.</p>
Landscape, Townscape and Cultural Heritage	<p>There are 45 conservation areas within the borough of differing character and sensitivity to change.</p> <p>The Borough has more than 500 buildings, structures or groups of buildings listed as being of special architectural or historic interest. Five buildings are Grade I (of exceptional interest): Church of St. Mary, Battersea Church Road, SW11; Mount Clare, Minstead Gardens, SW15; Granada Cinema (Gala Bingo), Mitcham Lane, SW17; Parkstead (Manresa) House, Roehampton Lane, SW15; and Roehampton House, Roehampton Lane, SW15. A further 40 buildings or structures are Grade II*.</p> <p>The Council also maintains a local list of other buildings of interest which may be considered for future listing. Data from 2015 indicated 16 buildings as being "at risk".</p> <p>Wandsworth contains no Scheduled Ancient Monuments (SAMs) or World Heritage Sites (WHS). However, around 45% of the London Borough of Wandsworth is classified as an Archaeological Protection Area (APA). This includes much of Putney, Roehampton,</p>	<p>People's enjoyment of heritage or historic areas can be negatively impacted by traffic factors such as noise, vibration and pollution. There is also risk of erosion and damage to historic or archaeological features due to pollution (e.g. from road transport).</p> <p>Because the LIP aims to achieve mode shift from car and encourage cleaner vehicles, in line with the MTS, it is expected to reduce the risk of noise, vibration and pollution, and damage associated with these factors.</p> <p>Without adequate mitigation or careful design, some infrastructure proposed in the LIP could have an adverse impact on sensitive historic buildings or structures, or more generally in conservation areas.</p>

	<p>Wandsworth and Battersea, as well as parts of Upper Tooting. The borough's APAs have been reviewed in 2016 but the new designations (which will use a tier system) have not yet been adopted.</p> <p>Some 147 ha of the borough (Battersea Park, Wandsworth Park, Putney Vale Cemetery, Wimbledon Park and part of the grounds of Grove House, Roehampton and Springfield Hospital) are designated as Historic Parks and Gardens under the National Heritage Act 1983. These areas have historic layouts and features which make them of special historic interest.</p>	
Material Assets	<p>Condition of the road network varies from year to year according to factors such as extreme weather conditions. Latest data reported to the Council's Community Services Overview and Scrutiny Committee (Paper No. 18-177) in June 2018 indicate that 94% of principal roads were in satisfactory or better condition in 2017/18, with the corresponding figure for non-principal roads being 96%.</p>	<p>Without regular investment in maintenance of highway and other transport assets they will decrease in quality over the timespan of the plan. The current freeze on LIP principal road maintenance funding allocated by TfL may have an adverse impact on this measure. However other schemes in the LIP (corridors and neighbourhoods programme) include elements of renewal in terms of streetscene and urban realm so will have a positive impact in this regard.</p>
Water Quality	<p>99.98% of drinking water was compliant with chemical and microbiological standards in 2010/11.</p> <p>The River Wandle was graded by the Environment Agency in 2015 as follows:</p> <p>Overall: moderate Ecological: moderate Chemical: good.</p> <p>Overall and Ecological assessments represented improvements from 2008 when they were assessed as "poor". The Chemical grading was unchanged.</p>	<p>Road traffic has a negative impact on water quality from diffuse sources such as traffic emissions, vehicle and tyre corrosion and abrasion of road surfaces and vehicle parts.</p> <p>The LIP's emphasis on mode shift from car and towards cleaner vehicles should lead to reductions in pollution from road transport and consequently a positive impact on water quality.</p>
Flood Risk	<p>In 2015 there were 32,204 within Flood Zone 3 (1 in 100 or greater annual probability of flooding) and a further 6,084 properties in Flood Zone 2 (between 1 in 100 and 1 in 1000 annual probability of flooding). Some 7,188 properties were at "high risk" of surface water flooding.</p>	<p>The LIP is not expected to have any direct impact on flood risk.</p>

### 3.3 SEA framework

3.3.1 The SEA Directive does not specifically require the use of objectives or indicators in SEA, but objectives can usefully demonstrate how environmental effects can be described, analysed and compared. A plan's performance against objectives can be measured using indicators. The SEA objectives are meant to be separate from the LIP objectives, though there may be some overlap.

3.3.2 DfT's guidance on SEA recommends the use of the New Approach to Appraisal (NATA) when developing objectives. NATA requires the assessment of transport strategies, plans and projects in relation to the Government's key objectives for transport: environment; safety; economy; accessibility and integration. The relationship between the NATA objectives and the topics set out in the SEA Regulations is summarised in Table 3.2 below.

Table 3.2: NATA and SEA Objectives

<b>NATA Objective</b>	<b>NATA Sub-Objective</b>	<b>SEA Topic</b>
Environment	Noise	Human health, population and inter-relationships
	Local Air Quality	Air, human health, population
	Greenhouse Gases	Climatic factors
	Landscape	Landscape
	Heritage	Cultural heritage including archaeological heritage
	Biodiversity	Biodiversity, flora, fauna, soil
	Water Environment	Water
	Physical Fitness	Human health, population
Safety	Accidents	Human health
	Security	
Accessibility	Community Severance	Population
	Access to Transport System	
Economy	Public Accounts	Material Assets
	Business Users and Providers	
	Consumer Users	

3.3.3 To fulfil the requirements of the SEA Directive, the objectives must cover the SEA topics outlined above. In developing the SEA objectives for the LIP, the NATA environmental objectives along with other environmental objectives and policies from various Wandsworth plans and strategies have been adopted.

3.3.4 The proposed SEA objectives and indicators are outlined in Table 3.3.

Table 3.3: Proposed SEA Objectives and Possible Indicators

<b>SEA Topic</b>	<b>SEA Objective</b>	<b>Possible Performance Indicators</b>
Biodiversity, flora and fauna	1. To conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet the residents needs.	Number of sites affected by LIP proposals.
Air	2. Improve local air quality	Emissions from roadside air quality monitoring.
Climatic factors	3. Minimise the emissions of greenhouse gases from transport.	% of CO <sub>2</sub> emitted from transport
	4. Encourage the efficient use of energy and the use of renewable energy.	
Population and human health	5. To prevent and control noise nuisances	Number of transport related noise complaints.
	6. Reduce road traffic injuries and fatalities.	Number of road casualties including progress towards Vision Zero for KSI casualties
Soil	7. Minimise the impact of transport on soils	Number of transport schemes affecting soil.
Cultural heritage	8. Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment	Number of cultural and heritage sites affected by LIP proposals.
Landscape and townscape	9. To protect, conserve and enhance the existing varied character and heritage of the Borough	Number of projects aimed at improving landscape/streetscape.
Material assets	10. Protect assets of economic value.	Frequency/number of road maintenance or improvement projects.
Water	11. To protect the water environment.	Number of schemes affecting water environment.
	12. To reduce water pollution by reducing traffic volumes and promoting cleaner fuels.	Number of water pollution incidents attributed to transport.
	13. Reduce the risk of flooding	Total area at risk of flooding

## 4 Assessment of Environmental Effects

### 4.1 Introduction

4.1.1 This chapter describes:

- The compatibility of LIP objectives when compared against the SEA objectives.
- The development of alternatives and assessment of options against the SEA objectives.
- The assessment of the significant environmental effects of implementing the Wandsworth LIP and its realistic alternatives.
- The consideration of cumulative impacts and the interrelationship of effects.

### 4.2 Compatibility appraisal of LIP objectives

4.2.1 The LIP objectives listed in Table 2.1 above have been assessed against the SEA Objectives shown in Table 3.3.

4.2.2 **Error! Reference source not found.** below considers the compatibility of the LIP objectives when compared against the SEA objectives. It was felt that none of the LIP objectives were incompatible with the SEA objectives. However, there could be potential conflicts between SEA objective 8 (Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment) and LIP Objectives MS5 and MTS5a, which both relate to new major public transport infrastructure, including stations. Such major new rail infrastructure could potentially have an adverse impact on the character and heritage of the stations such as Clapham Junction, unless considered carefully in the design process. There is also scope for such changes to have a positive impact and enhance the enjoyment of the historic environment. These schemes are promoted by third parties rather than the Council and they are subject to their own independent environmental assessments.

4.2.3 There are numerous instances where the link between the LIP objective and SEA objective is uncertain. Most notably these are in relation the SEA Objective 9 (Protect, conserve and enhance the existing varied character and heritage of the Borough), where new infrastructure at any scale could detract from the character of the borough unless considered carefully in design (e.g. the design and positioning of electric vehicle charging infrastructure, or cycle parking).

4.2.4 LIP objectives relating to improving bus services, including speeds, also tend to have uncertain impacts on SEA objectives. Buses can add to local noise and air pollution, and higher speeds could risk more, and more severe, road casualties; but provision of better buses will also encourage mode shift from private car which in itself would have air quality, noise and road safety benefits.

4.2.5 The compatibility appraisals below have been helpful to ensure consistency between the SEA objectives and the aims of the LIP. It is useful in clarifying trade-offs that may exist or become apparent during implementation between, for example, social or economic benefits and environmental costs. It should be noted that the purpose of SEA is to inform the decision-making process rather than make decisions and, as such, SEA assessment should not be drawn into any “balancing” or judgement about accepting harm to some criteria for the sake of benefits on other criteria.

Table 4.1: Compatibility of SEA and LIP Objectives

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MS1	To facilitate a higher proportion of travel on foot by creating more attractive and convenient conditions for walking boroughwide, with a particular focus on town centres	Y	Y	Y	-	-	Y	Y	Y	-	-	Y	Y	-
MS2	To facilitate a higher proportion of travel by bicycle by creating more attractive and convenient conditions for all types of cyclists, especially on corridors with highest potential demand, making use of traffic-free spaces	?	Y	Y	-	-	Y	Y	-	?	-	Y	Y	-
MS3	To focus on transferring short car trips to walking and cycling, including for journeys to and from school	-	Y	Y	-	Y	Y	Y	Y	-	-	Y	Y	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MS4	To give more people confidence to cycle through supporting measures such as cycle training, and provision of more and better cycle parking	-	Y	Y	-	-	Y	Y	-	-	-	-	Y	-
MS5	To support the delivery of rail-based public transport improvements including the Northern Line Extension to Battersea and Crossrail 2 through Clapham Junction and Tooting Broadway or Balham	?	?	?	-	?	Y	?	X	?	Y	?	Y	-
MS6	To improve bus journey speeds and reliability, particularly on key corridors	-	Y	?	-	-	?	?	?	-	-	-	Y	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MS7	To improve public transport interchange by providing better access to stations and bus stops, and improving the waiting environment at stations, town centres and other key locations	Y	Y	Y	-	-	Y	Y	?	-	-	-	Y	-
MS8	To increase awareness of transport choices and their impacts	-	Y	Y	-	-	-	-	-	-	-	-	Y	-
MS9	To reduce private motorised traffic, including through the use of new technology and innovation	-	Y	Y	Y	Y	Y	Y	Y	-	-	Y	Y	-
MS10	To work with partners including TfL, public transport operators, developers and others to deliver these objectives	-	-	-	-	-	-	-	-	-	-	-	-	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS1a	To adopt the Healthy Streets Approach and consider the Healthy Streets indicators in the planning and delivery of infrastructure changes	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	Y	-
MTS1b	To implement the Wandsworth Cycling Strategy, and review it regularly in line with the Healthy Streets approach	-	Y	Y	-	-	Y	Y	-	-	-	-	Y	-
MTS1c	To limit the speed and volume of traffic on residential streets, to make them more pleasant for walking and cycling	-	Y	Y	-	-	Y	-	-	-	-	-	-	-
MTS1d	To develop healthy, safe and accessible routes to key destinations – stations, town centres, schools – to enable people to walk or cycle more often	Y	Y	Y	-	-	Y	Y	Y	-	-	-	Y	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS1e	To develop and promote traffic-free routes including through open spaces as part of the transport network	?	Y	Y	-	-	Y	Y	?	?	-	-	Y	-
MTS2a	Focus on reducing vulnerable road user casualties, through street design and reduction of danger from vehicles, especially HGVs	-	-	-	-	-	Y	-	-	-	-	-	-	-
MTS2b	Work in partnership with the Police, TfL and other agencies to support the boroughwide 20mph limit, review its effectiveness and potentially expand to more roads including parts of the TLRN	-	?	?	-	Y	Y	-	-	-	-	-	-	-
MTS2c	Regularly assess and address collision hotspots through infrastructure improvements, taking a road danger reduction approach to design	-	-	-	-	-	Y	-	-	-	-	-	-	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS2d	Work with residents to gather information on perceived safety and security issues so that improvements can be made	-	-	-	-	-	Y	-	-	-	-	-	-	
MTS2e	Empower people with the skills they need so they can make safe decisions for themselves and others while travelling by all modes of transport	-	-	-	-	-	Y	-	-	-	-	-	-	
MTS2f	Reduce fear of crime by adopting the Healthy Streets approach to design of public spaces	Y	-	-	-	-	-	-	?	?	-	-	-	
MTS3a	Improve access to town centres, schools and other major trip attractors by non-car modes	Y	Y	Y	-	Y	Y	Y	Y	-	-	Y	Y	
MTS3b	Reduce rat-running on residential streets, thereby improving conditions for walking and cycling	-	Y	Y	-	Y	Y	Y	-	-	-	Y	Y	

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS3c	Reduce travel by car by working with schools and employers, including through travel plans and the provision of facilities to support non-car travel	-	Y	Y	-	Y	Y	Y	-	-	-	Y	Y	-
MTS3d	Promote and enable car-free or car-lite living through planning policies and the provision of car clubs	-	Y	Y	-	Y	Y	Y	-	-	-	Y	Y	-
MTS3e	Use parking policies to manage the supply and demand for car parking	-	Y	Y	-	Y	-	-	-	-	-	-	-	-
MTS3f	Implement and expand CPZs in the borough where they are proposed and supported by local residents	-	Y	Y	-	Y	-	-	?	?	-	-	-	-
MTS3g	Work with freight and delivery firms to develop measures and practice that reduce the impact of freight activity along major roads and in town centres	-	Y	Y	-	Y	Y	Y	Y	-	Y	Y	Y	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS3h	Promote and enable best practice for deliveries e.g. through local consolidation centres and last-mile bicycle/low emission delivery	-	Y	Y	Y	Y	Y	Y	-	-	-	Y	Y	-
MTS4a	Implement the Air Quality Action Plan	Y	Y	Y	Y	Y	-	Y	-	-	-	Y	Y	-
MTS4b	Monitor and review air quality especially in the five focus areas of Putney, Wandsworth, Clapham Junction, Tooting and York Road	-	Y	Y	Y	-	-	-	-	-	-	-	-	-
MTS4c	Introduce measures to complement the expansion of the ULEZ to the A205/A3 South Circular in 2021	-	Y	Y	Y	-	-	-	-	-	-	Y	Y	-
MTS4d	Expand electric vehicle charging infrastructure for both residential use and rapid charging to support ZEC taxis and commercial vehicles	-	Y	Y	Y	Y	-	Y	?	?	-	Y	Y	-
MTS4e	Reduce the environmental impact of freight transport	-	Y	Y	Y	Y	-	Y	-	-	-	Y	Y	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS4f	Promote the use of EVs including through best practice in greening the Council fleet	-	Y	Y	Y	Y	-	Y	?	?	-	Y	Y	-
MTS4g	Use trees and other green infrastructure such as green walls to improve the street environment and reduce levels of pollution	Y	Y	Y	-	-	-	Y	-	-	-	Y	Y	-
MTS4h	Lead in the use of new technology and innovation to improve air quality	Y	Y	Y	Y	-	-	Y	-	-	-	Y	Y	-
MTS5a	Support TfL, Network Rail and train operators to improve public transport across the borough, including the introduction of the Northern Line Extension in 2020 and Crossrail 2 in the 2030s	?	Y	Y	-	?	-	?	X	?	Y	?	?	-
MTS 5b	Work in partnership with TfL to regularly review bus operations within the borough to ensure capacity meets potential demand	-	?	?	-	?	-	?	?	?	-	-	-	-

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS6a	Work with TfL, train operators and Network Rail to introduce step-free access at stations	-	Y	Y	-	-	-	-	-	-	-	-	-	
MTS6b	Ensure that all new and relocated bus stops are accessible, and keep other stops under review	-	Y	Y	-	-	-	-	-	-	-	-	-	
MTS6c	Work with public transport providers to improve the public transport waiting environment including provision of information for passengers	-	Y	Y	-	-	-	-	-	-	-	-	-	
MTS6d	Review and improve interchange at key locations, including bus-bus interchange where routes intersect	-	Y	Y	-	-	-	-	-	-	-	-	-	
MTS6e	Develop healthy and accessible routes to stations	Y	Y	Y	-	-	Y	-	Y	-	-	Y	Y	
MTS6f	Improve cycle parking at public transport hubs and interchanges	-	Y	Y	-	-	-	-	?	?	-	-	-	

LIP Objectives		SEA Objectives (summarised)												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
MTS7	Improve bus speeds through traffic management (e.g. bus priority, parking/loading controls) at key locations (corridors/junctions) where buses are delayed the most	-	?	?	-	?	?	?	-	-	-	-	-	-
MTS8	To support active, efficient and sustainable travel at new developments through planning policies in the Local Plan.	-	Y	Y	-	Y	Y	-	-	-	-	Y	Y	-
MTS9	Use the Northern Line Extension, Crossrail 2 and other new transport infrastructure and services as catalysts for development.	?	?	?	-	?	-	?	?	?	-	?	?	-

Y	Compatible
?	Uncertain
X	Potential Conflict
	Incompatible
-	No Link

### 4.3 Development of alternatives

4.3.1 The SEA Directive requires that the Environmental Report identifies the alternatives considered for achieving the LIP's objectives. Plan-making invariably involves choices between different options for addressing particular issues within the remit and geographical scope of the plan.

4.3.2 Given TfL's comprehensive LIP guidance and the need for the LIP to contribute to a range of defined MTS goals and desired outcomes, the scope for realistic alternatives is quite narrow. Some alternatives approaches/schemes have however been considered and these have been assessed along with the schemes selected for inclusion in the final draft plan, as shown below.

### 4.4 Methodology for assessing the plan and its alternatives

4.4.1 The LIP programme and its alternatives have been assessed for their likely effects in relation to the SEA objectives. Assessment matrices have been used to determine the significant environmental effects of each preferred LIP option within the Borough's programme as well as 'alternative' options identified for further consideration. A matrix has therefore been developed for each of the SEA topic areas identified in Chapter 3 as likely to be affected by the LIP (namely Biodiversity, flora and fauna, Air Quality, Climatic Factors, Population and Human Health, Soil Quality, Cultural Heritage, Landscape and Townscape, Material Assets and Water Environment).

4.4.2 Each of the identified LIP options (both those in the programme and those identified as 'alternatives') were appraised using the SEA framework of objectives for the identified SEA topic areas and were compared to the established baseline data to make a judgement on the significance of the impact and the magnitude of the effect on the environment. Predictions were then identified according to an overall significance score highlighting the anticipated scale of environmental impact.

4.4.3 Each LIP option and alternative has been allocated a symbol and colour, denoting how it performs against the particular SEA objective using a seven-point grading system incorporating positive, negative, neutral and unknown impacts. This system identifies the key problems (i.e. grade red, the potential show-stopper or grade orange, a critical issue, and grade yellow, issues requiring mitigation) which will need to be considered to achieve the best environmental outcomes. Light green and dark green are used to denote LIP options which are assessed as having a positive effect on the SEA objective. Blue indicates a neutral effect and a ? symbol is used to denote uncertain or unknown effects which may depend on how an option is implemented.

4.4.4 The scoring criteria can be seen in Table 4.2 below.

Table 4.2: SEA Assessment Matrix: Scoring Criteria

Symbol/Colour	Environmental Effect
<b>++</b>	<i>Excellent</i> - the SEA objective/criteria is fully satisfied. (The proposed action should be actively encouraged as it would resolve an existing environmental issue).
<b>+</b>	<i>Good</i> - the SEA objective/criteria is generally adequately satisfied, at least to the level we would currently consider best practice. (The proposed action is acceptable as there are no environmental constraints).
<b>0</b>	Neutral effect.
<b>?</b>	Uncertain or unknown effects.
<b>-</b>	<i>Negotiable</i> – the SEA objective/criteria is not adequately satisfied. There are potential environmental issues with the proposed action; but mitigation and/or negotiation are possible.
<b>--</b>	A highly <i>problematic</i> level:- the SEA objective/criteria is not likely to be satisfactorily fulfilled without major reassessment, a change in the basic development assumptions, or action in a related (but independent) decision area. (Improbably as there are known environmental issues).
<b>X</b>	An <i>unacceptable</i> level:- the SEA objective/criteria cannot be satisfied. (Absolute environmental constraints)

#### 4.5 Assessment findings

4.5.1 The following matrices detail assessment of the LIP programme and its alternatives against the SEA objectives. The measures have been grouped into topic areas and a commentary of their assessment is provided.

4.5.2 Table 4. overleaf provides a summary of the assessment findings for the LIP programme and its alternatives. It can be seen from Table 4. that the majority of LIP programme scores positively in relation to the SEA objectives. There are no schemes outlined within the LIP proposals which are considered problematic or unacceptable due to environmental issues or constraints.

4.5.3 Tables 4.4 to 4.18 provide detailed commentary on the assessment findings for each SEA topic area.

Table 4.3: Wandsworth LIP SEA Assessment Matrix Summary

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Corridors and N'hoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	+	+	+	0	0	+	+	0	+	+	0	+	0
<b>Corridors and N'hoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	0	+	+	0	0	+	0	0	0	+	0	+	0
<b>Corridors and N'hoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	0	+	+	0	0	+	+	0	0	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Corridors and N'hoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	+	+	+	0	0	+	+	0	+	+	0	+	0
<b>Corridors and N'hoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	+	+	+	0	0	+	+	0	+	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Corridors and N'hoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	+	+	+	0	0	+	+	0	+	+	0	+	0
<b>Corridors and N'hoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	0	+	+	0	0	+	+	0	+	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
Corridors and N'hoods	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	0	+	+	0	0	+	+	0	+	+	0	+	0
Corridors and N'hoods	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	0	+	+	0	0	+	+	0	+	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Corridors and N'hoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	0	+	+	0	0	+	+	0	0	+	0	+	0
<b>Corridors and N'hoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	0	+	+	0	+	+	+	0	0	+	0	+	0
<b>Corridors and N'hoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	0	+	+	0	0	+	+	0	0	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
Cycling	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	0	+	+	0	0	0	+	-	-	+	0	+	0
Cycling	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	-	+	+	0	0	+	-	-	-	+	0	+	-
Cycling	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	0	+	+	0	0	+	+	0	0	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	0	+	+	0	0	+	+	0	0	+	0	+	0
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	0	+	+	0	0	++	+	0	0	+	0	+	0
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	0	?	?	0	+	++	0	0	-	0	0	0	0
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	0	0	0	0	0	++	0	0	0	0	0	0	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	0	0	0	0	0	++	0	0	0	0	0	0	0
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	0	0	0	0	0	++	0	0	0	0	0	0	0
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	0	0	0	0	0	++	0	0	0	0	0	0	0
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	++	++	0	0	0	+	0	0	0	0	0	+

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)													
			1	2	3	4	5	6	7	8	9	10	11	12	13	
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk	
Environment	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	++	++	0	0	0	+	0	0	0	0	0	+	0
Environment	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	++	++	0	0	0	+	0	0	0	0	0	+	0
Environment	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	++	++	0	0	0	+	0	0	0	0	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)														
			1	2	3	4	5	6	7	8	9	10	11	12	13		
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk		
Environment	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	+	++	++	+	0	0	0	+	0	0	0	0	0	+	0
Environment	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	+	++	++	+	+	0	+	0	-	0	0	0	0	+	0
Environment	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	+	++	++	0	0	0	0	+	0	0	0	0	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)													
			1	2	3	4	5	6	7	8	9	10	11	12	13	
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk	
Environment	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	++	++	++	0	0	0	+	0	++	0	0	0	0	+
Environment	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	+	++	++	+	+	+	+	0	+	+	0	+	0	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	0	+	+	0	0	+	+	0	0	+	0	+	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
Supporting Measures	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	0	0	0	0	0	0	0	0	0	0	0	0	0
Supporting Measures	Car Club	Ongoing funding for bay reviews and traffic management orders	0	+	+	0	0	0	+	0	?	+	0	+	0
Supporting Measures	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	0	0	0	0	0	0	0	0	0	0	0	0	0

LIP Programme/Scheme for Assessment			SEA Objectives (summarised)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
			Biodiversity	Air quality	Greenhouse gases	Energy efficiency	Noise	Road traffic injuries	Soils	Culture, heritage and historic environment	Character and heritage	Protect assets	Protect the water environment	Reduce water pollution	Reduce flood risk
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	+	++	++	0	+	+	+	+	+	+	0	+	0
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	+	+	+	0	0	+	+	0	0	+	0	+	0
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	0	0	0	0	0	0	0	-	-	0	0	0	0

Table 4.4: SEA Objective 1 Assessment Matrix

<b>SEA Objective 1: Conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet residents' needs.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>+</b>	Scheme includes improvements to public realm/space. May also contribute to mode shift from private car leading to less pollution, which has an adverse impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>+</b>	Scheme includes improvements to public realm/space. May also contribute to mode shift from private car leading to less pollution, which has an adverse impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>+</b>	Scheme includes improvements to public realm/space. May also contribute to mode shift from private car leading to less pollution, which has an adverse impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>+</b>	Scheme will include improvements to public realm/space. May also contribute to mode shift from private car leading to less pollution, which has an adverse impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Likely to have minimal impact on biodiversity.

<b>SEA Objective 1: Conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet residents' needs.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>-</b>	New cycle routes through parks and open spaces could have a potential adverse impact on biodiversity by providing hard surfacing instead of grass/soil. This will be mitigated via design e.g. choice of appropriate materials for cycle routes that do not harm biodiversity or the quality of open spaces, e.g. permeable surfacing.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	Likely to have minimal impact on biodiversity.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	Likely to have minimal impact on biodiversity.

**SEA Objective 1: Conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet residents' needs.**

Programme	Scheme	Description	Impact	Commentary
Safety and Vision Zero	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	0	Likely to have minimal impact on biodiversity.
Safety and Vision Zero		ALTERNATIVE:		
Environment	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	+	Improvements to air quality will have a positive impact on local biodiversity
Environment	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	++	Provision of additional trees will have a direct positive impact on biodiversity and the quality of public space
Environment	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	+	Improvements to air quality will have a positive impact on local biodiversity

**SEA Objective 1: Conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet residents' needs.**

Programme	Scheme	Description	Impact	Commentary
Supporting Measures	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	0	Likely to have minimal impact on biodiversity.
Supporting Measures	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	0	No impact - meetings only.
Supporting Measures	Car Club	Ongoing funding for bay reviews and traffic management orders	0	Likely to have minimal impact on biodiversity.
Supporting Measures	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	0	No impact - gathering of information only.
Alternative Proposals (not included in draft LIP)	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	+	Scheme includes improvements to public realm/space. May also contribute to mode shift from private car leading to less pollution, which has an adverse impact on biodiversity.
Alternative Proposals (not included in draft LIP)	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	+	Scheme includes improvements to public realm/space. May also contribute to mode shift from private car leading to less pollution, which has an adverse impact on biodiversity.
Alternative Proposals (not included in draft LIP)	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	0	Likely to have minimal impact on biodiversity.

Table 4.5: SEA Objective 2 Assessment Matrix

<b>SEA Objective 2: Improve local air quality.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.

<b>SEA Objective 2: Improve local air quality.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	+	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	?	Evidence on the overall impact of speed reduction measures on local air quality is mixed. Consequently the impact of this proposal is uncertain.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	0	Likely to have minimal impact on local air quality.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	0	Likely to have minimal impact on local air quality.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	0	Likely to have minimal impact on local air quality.

<b>SEA Objective 2: Improve local air quality.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	Likely to have minimal impact on local air quality.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Scheme is directly aimed at improving local air quality.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Scheme is directly aimed at improving local air quality.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Scheme is directly aimed at improving local air quality.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Scheme is directly aimed at improving local air quality.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>++</b>	Scheme is directly aimed at improving local air quality.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>++</b>	Encouragement for zero-tailpipe emission vehicles has a direct positive impact on local air quality.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>++</b>	Scheme is directly aimed at complementing the ULEZ which is being introduced to improve local air quality.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>++</b>	Provision of street trees has a positive impact on local air quality. Trees absorb dust and nitrogen compounds in the air that are harmful for the human body through the pores of leaves or make them stuck to the surface of their leaves, through which they purify the air
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>++</b>	Encouragement for zero-tailpipe emission vehicles has a direct positive impact on local air quality.

<b>SEA Objective 2: Improve local air quality.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>+</b>	Drivers who are car club members use cars less frequently than drivers who are not, leading to lower emissions from lower car use. In addition, the car club fleet is on average cleaner and newer than the average private vehicle, resulting in lower emissions and better local air quality.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>++</b>	Likely to drastically reduce levels of local pollutants from road transport
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to have a positive impact on local air quality.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Broadly neutral - may encourage mode shift but some buses are among the bigger pollutants

Table 4.6: SEA Objective 3 Assessment Matrix

<b>SEA Objective 3: Minimise emissions of greenhouse gases from transport.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.

<b>SEA Objective 3: Minimise emissions of greenhouse gases from transport.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	?	Evidence on the overall impact of speed reduction measures on greenhouse gas emissions is mixed. Consequently the impact of this proposal is uncertain.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	0	No anticipated impact on greenhouse gas emissions.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	0	No anticipated impact on greenhouse gas emissions.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	0	No anticipated impact on greenhouse gas emissions.

<b>SEA Objective 3: Minimise emissions of greenhouse gases from transport.</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	No anticipated impact on greenhouse gas emissions.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>++</b>	Proposal aims to encourage switch from petrol/diesel vehicles to electric vehicles which will have an overall positive impact on greenhouse gas emissions.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>++</b>	Trees absorb CO <sub>2</sub> and emit oxygen. Therefore an increase in street trees will absorb some of the CO <sub>2</sub> emissions from transport and have a positive contribution to the total amount of greenhouse gases in the area.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>++</b>	Proposal is directly aimed at reducing emissions from transport, which will also have a positive impact on greenhouse gas emissions.

### SEA Objective 3: Minimise emissions of greenhouse gases from transport.

Programme	Scheme	Description	Impact	Commentary
Supporting Measures	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
Supporting Measures	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	0	No impact - meetings only.
Supporting Measures	Car Club	Ongoing funding for bay reviews and traffic management orders	+	Drivers who are car club members use cars less frequently than drivers who are not, leading to lower emissions from lower car use. In addition, the car club fleet is on average cleaner and newer than the average private vehicle, resulting in lower emissions of greenhouse gases.
Supporting Measures	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	0	No impact - gathering of information only.
Alternative Proposals (not included in draft LIP)	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	++	Likely to reduce levels of greenhouse gases from road transport
Alternative Proposals (not included in draft LIP)	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in greenhouse gas emissions.
Alternative Proposals (not included in draft LIP)	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	0	Broadly neutral - may encourage mode shift but buses also emit greenhouse gases

Table 4.1: SEA Objective 4 Assessment Matrix

<b>SEA Objective 4: Encourage the efficient use of energy and the use of renewable energy</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	No anticipated impact on use of energy.

<b>SEA Objective 4: Encourage the efficient use of energy and the use of renewable energy</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>0</b>	No anticipated impact on use of energy.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	No anticipated impact on use of energy.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>0</b>	No anticipated impact on use of energy.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>0</b>	No anticipated impact on use of energy.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	No anticipated impact on use of energy.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	No anticipated impact on use of energy.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	No anticipated impact on use of energy.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>0</b>	No anticipated impact on use of energy.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	No anticipated impact on use of energy.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	No anticipated impact on use of energy.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	No anticipated impact on use of energy.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	No anticipated impact on use of energy.

<b>SEA Objective 4: Encourage the efficient use of energy and the use of renewable energy</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated impact on use of energy.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated impact on use of energy.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated impact on use of energy.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated impact on use of energy.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>+</b>	Innovation anticipated to include efficient use of energy including renewables.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>+</b>	Proposal involves efficient use of electricity.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	No anticipated impact on use of energy.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>0</b>	No anticipated impact on use of energy.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>+</b>	Proposal involves efficient use of electricity.
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>0</b>	No anticipated impact on use of energy.

<b>SEA Objective 4: Encourage the efficient use of energy and the use of renewable energy</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>0</b>	No anticipated impact on use of energy.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>0</b>	No anticipated impact on use of energy.
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>0</b>	No anticipated impact on use of energy.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	No anticipated impact on use of energy.

Table 4.10: SEA Objective 5 Assessment Matrix

<b>SEA Objective 5: Prevent and control noise nuisances</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	No anticipated noise impact.

<b>SEA Objective 5: Prevent and control noise nuisances</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	No anticipated noise impact.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>+</b>	Reduction in traffic in residential streets will result in less noise experienced by residents.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	No anticipated noise impact.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>0</b>	No anticipated noise impact.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>0</b>	No anticipated noise impact.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	No anticipated noise impact.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	No anticipated noise impact.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	No anticipated noise impact.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>+</b>	Reduction in vehicles speeds is anticipated to result in less noise impact.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	No anticipated noise impact.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	No anticipated noise impact.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	No anticipated noise impact.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	No anticipated noise impact.

<b>SEA Objective 5: Prevent and control noise nuisances</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>+</b>	Encouragement for electric vehicles in preference to diesel/petrol will result in less noise from vehicles.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>0</b>	No anticipated noise impact.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>+</b>	Emission-free (e.g. EV) freight will result in less noise from vehicles.
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>0</b>	No anticipated noise impact.

<b>SEA Objective 5: Prevent and control noise nuisances</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>0</b>	No anticipated noise impact.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Vehicle restrictions will reduce noise from traffic
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>0</b>	No anticipated noise impact.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Neutral - some mode shift from cars but buses are relatively noisy

Table 4.11: SEA Objective 6 Assessment Matrix

<b>SEA Objective 6: Reduce road traffic injuries and fatalities</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.

<b>SEA Objective 6: Reduce road traffic injuries and fatalities</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	0	No anticipated road safety impact.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	+	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	+	Dr Bike aims to ensure cyclists have safe working equipment and therefore contributes to road safety.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	++	Proposal is directly aimed at improving road safety.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	++	Proposal is directly aimed at improving road safety.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	++	Proposal is directly aimed at improving road safety.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	++	Proposal is directly aimed at improving road safety.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	++	Proposal is directly aimed at improving road safety.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	++	Proposal is directly aimed at improving road safety.

<b>SEA Objective 6: Reduce road traffic injuries and fatalities</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>0</b>	No anticipated road safety impact.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>+</b>	Fewer heavy lorries making deliveries in busy areas will contribute to improved road safety.
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>+</b>	Proposal includes measures to improve road safety and contribute to Mayor's Vision Zero.

<b>SEA Objective 6: Reduce road traffic injuries and fatalities</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>0</b>	No anticipated road safety impact.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Fewer vehicles will contribute to improved road safety.
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>+</b>	Fewer vehicles will contribute to improved road safety.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Broadly neutral - potential for mode shift and fewer cars, and better interchange reducing exposure to traffic; but bus involvement in collisions tends to be more severe

Table 4.12: SEA Objective 7 Assessment Matrix

<b>SEA Objective 7: Minimise the impact of transport on soils</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	Unlikely to have an impact on soils.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.

<b>SEA Objective 7: Minimise the impact of transport on soils</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	+	
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	-	New cycle routes through parks and open spaces could have a potential adverse impact on soil by providing hard surfacing instead of grass/soil. This will be mitigated via design e.g. choice of appropriate materials for cycle routes that minimise the adverse impact on open spaces. There is also a positive benefit for soils as the proposal contributes to mode shift from car leading to reduced levels of pollution reaching soil.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	+	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	0	No anticipated impact on soils.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	0	No anticipated impact on soils.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	0	No anticipated impact on soils.

<b>SEA Objective 7: Minimise the impact of transport on soils</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	No anticipated impact on soils.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	No anticipated impact on soils.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>+</b>	Proposal is aimed at reducing pollutants from transport and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>+</b>	Proposal is aimed at reducing pollutants from transport and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>+</b>	Proposal is aimed at reducing pollutants from transport and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>+</b>	Proposal is aimed at reducing pollutants from transport and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>+</b>	Proposal is aimed at reducing pollutants from transport and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>+</b>	Proposal is aimed at reducing use of petrol/diesel vehicles and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>+</b>	Proposal is aimed at reducing pollutants from transport and therefore should result in lower levels of pollution reaching soils.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>+</b>	Streets trees have a positive impact on soils.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>+</b>	Proposal is aimed at reducing use of heavy diesel vehicles and therefore should result in lower levels of pollution reaching soils.

<b>SEA Objective 7: Minimise the impact of transport on soils</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>+</b>	Drivers who are car club members use cars less frequently than drivers who are not, leading to lower emissions from lower car use. In addition, the car club fleet is on average cleaner and newer than the average private vehicle, also resulting in lower emissions. As a result the proposal is anticipated to result in lower levels of pollution reaching soils.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Removal of local pollution from vehicles will have positive impact on soils
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>+</b>	Scheme contributes to mode shift from private car, which is likely to result in a reduction in pollutants reaching soils.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Broadly neutral - may encourage mode shift but buses also pollutants that can reach soils

Table 4.13: SEA Objective 8 Assessment Matrix

<b>SEA Objective 8: Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 8: Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	Minimal impact anticipated.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>-</b>	Cycle parking in public places could detract from the character of an area, e.g. in historic parks or in the vicinity of listed buildings or structures . This will be mitigated by appropriate design and placement of parking infrastructure.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>-</b>	New cycle routes through parks and open spaces could have a potential adverse impact on historic or cultural assets (e.g. historic parks, commons) by providing hard surfacing instead of grass/soil. This will be mitigated via design e.g. choice of appropriate materials for cycle routes that minimise impact on open spaces, e.g. permeable surfacing.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	Minimal impact anticipated.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 8: Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 8: Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>0</b>	Minimal impact anticipated.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>0</b>	Minimal impact anticipated.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Heritage and historic assets enhanced by removal of traffic in area
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>0</b>	Minimal impact anticipated.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>-</b>	New stations will have an impact on historic and heritage settings; this can be mitigated through good design (and can lead to a positive impact).

Table 4.14: SEA Objective 9 Assessment Matrix

<b>SEA Objective 9: Protect, conserve and enhance the existing varied character and heritage of the Borough</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>+</b>	Public realm improvements aim to enhance character of the area.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>+</b>	Public realm improvements aim to enhance character of the area.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>+</b>	Public realm improvements aim to enhance character of the area.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>+</b>	Public realm improvements aim to enhance character of the area (partly in Clapham Junction conservation area).
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>+</b>	Public realm improvements aim to enhance character of the area.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>+</b>	Public realm improvements likely to form part of proposals, aiming to enhance character of the area.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>+</b>	Public realm improvements likely to form part of proposals, aiming to enhance character of the area.

<b>SEA Objective 9: Protect, conserve and enhance the existing varied character and heritage of the Borough</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	Minimal impact anticipated.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	-	Cycle parking could detract from the character of an area, including conservation areas. This will be mitigated by appropriate design and placement of parking infrastructure.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	-	Cycling infrastructure could detract from the character of an area, including conservation areas. This will be mitigated by appropriate design.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	No impact.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	No impact.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	-	Signage and camera infrastructure could have a negative impact on the character of an area; however this proposal is for temporary signs to be redeployed in different areas of the borough so any adverse impact would only be for a short period.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 9: Protect, conserve and enhance the existing varied character and heritage of the Borough</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>-</b>	Electric vehicle charging infrastructure could detract from the character of an area, including conservation areas. This will be mitigated by appropriate design and placement.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>++</b>	Provision of additional street trees will have a direct positive impact on the character of the borough.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>+</b>	Reduction in large lorries making deliveries will enhance the quality of the street scene.

<b>SEA Objective 9: Protect, conserve and enhance the existing varied character and heritage of the Borough</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>0</b>	Minimal impact anticipated.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>?</b>	Provision of new car club bays and associated signage could detract from the character of a street; however most bays are provided where there is already signage and bay markings. Car clubs also contribute to fewer cars being parked overall in an area, which improves the quality of the street scene.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Local character enhanced by removal of traffic in area
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>0</b>	Minimal impact anticipated.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>-</b>	New stations will have an impact on the character and heritage of a location; this can be mitigated through good design (and can lead to a positive impact).

Table 4.15: SEA Objective 10 Assessment Matrix

<b>SEA Objective 10: Protect assets of economic value</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.

<b>SEA Objective 10: Protect assets of economic value</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>+</b>	Proposal will reduce through traffic and hence lengthen the life of roads in residential areas.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 10: Protect assets of economic value</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>+</b>	Reduction in large lorries making deliveries will reduce damage to roads and lengthen the life of the highway asset.

<b>SEA Objective 10: Protect assets of economic value</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>+</b>	Proposal likely to reduce overall car use and thereby lengthen life of highway asset.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Removal of vehicular traffic will lengthen life of the highway asset.
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>+</b>	Scheme likely to promote mode shift from private car to modes that have less impact on road infrastructure, lengthening the life of the road asset.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Broadly neutral - some mode shift from car but buses are heavy vehicles creating wear and tear on carriageway asset.

Table 4.16: SEA Objective 11 Assessment Matrix

<b>SEA Objective 11: Protect the water environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Minimal impact.

<b>SEA Objective 11: Protect the water environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>0</b>	Minimal impact.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	Minimal impact.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>0</b>	Minimal impact.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>0</b>	Minimal impact.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	Minimal impact.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	Minimal impact.
<b>Cycling</b>		ALTERNATIVE:	<b>0</b>	Minimal impact.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	Minimal impact.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>0</b>	Minimal impact.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	Minimal impact.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	Minimal impact.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	Minimal impact.

<b>SEA Objective 11: Protect the water environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	Minimal impact.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	Minimal impact.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>0</b>	Minimal impact.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	Minimal impact.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>0</b>	Minimal impact.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>0</b>	Minimal impact.

<b>SEA Objective 11: Protect the water environment</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>0</b>	Minimal impact.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>0</b>	Minimal impact.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>0</b>	Minimal impact.
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>0</b>	Minimal impact.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Minimal impact.

Table 4.17: SEA Objective 12 Assessment Matrix

<b>SEA Objective 12: Reduce water pollution by reducing traffic volumes and promoting cleaner fuels</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	+	Positive impact by promoting mode shift and reducing traffic.

<b>SEA Objective 12: Reduce water pollution by reducing traffic volumes and promoting cleaner fuels</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	+	Positive impact by promoting mode shift and reducing traffic.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	+	Positive impact by promoting mode shift and reducing traffic.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	0	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	0	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	0	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	0	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	0	Minimal impact anticipated.

<b>SEA Objective 12: Reduce water pollution by reducing traffic volumes and promoting cleaner fuels</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	+	Positive impact by promoting cleaner fuels.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	0	Minimal impact anticipated.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	+	Positive impact by promoting cleaner fuels.
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	+	Positive impact by promoting mode shift and reducing traffic.

<b>SEA Objective 12: Reduce water pollution by reducing traffic volumes and promoting cleaner fuels</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>+</b>	Positive impact by reducing overall car use.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>+</b>	Positive impact by promoting mode shift and reducing traffic.
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>+</b>	Positive impact by promoting mode shift and reducing traffic.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Broadly neutral - may encourage mode shift but some buses are among the bigger pollutants

Table 4.18: SEA Objective 13 Assessment Matrix

<b>SEA Objective 13: Reduce the risk of flooding</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Battersea High Street	Completion of public realm improvement scheme commencing 2018/19 (Paper No. 18-312 refers)	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Beechcroft Road and Magdalen Estate	Continuation of detailed feasibility work and implementation of short-term measures in the area of Beechcroft Road/Magdalen Estate/Trinity Road/Burntwood Lane as described in Paper No. 18-313	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Priory Lane	Implementation of cycle route improvement scheme arising from consultation in 2018 (Paper No. 16-251 refers).	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Putney High Street	Continued funding in 2019/20 for package of deliverables commencing in 2018/19, as described in Paper No. 18-226. Further LIP funding possible in future years subject to other demands and confirmation of WCIL	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Southfields Streetscene	To support phased implementation of public realm improvement scheme commencing 2018/19 as reported in Paper No 18-183.	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Falcon Road	Streetscape improvement - design and development of long-term plan to connect Clapham Junction to river; links with regeneration of Winstanley and York Road; medium term improvements to pedestrian and trading environment	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Culvert Place	Pedestrian and cycling accessibility to industrial estate and crossing railway; safety improvements and reducing vehicle conflict	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Garratt Lane corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	Queenstown Road corridor	Multi-modal improvements with emphasis on buses and active travel; to commence in 2020/21 in order to link with potential principal road maintenance funding (frozen at zero in 2018/19 and 2019/20)	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 13: Reduce the risk of flooding</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Corridors and Neighbourhoods</b>	Pedestrian accessibility	Programme of accessibility improvements in shopping streets e.g. shorter crossings and level pedestrian access across side roads	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 1 - reducing traffic dominance in residential streets	Implementation of measures to reduce traffic dominance including filtered permeability	<b>0</b>	Minimal impact anticipated.
<b>Corridors and Neighbourhoods</b>	FUTURE PROGRAMME 2 – interchange improvements	Measures to improve interchange at key locations identified via analysis of TfL data and community-led suggestions. To include pedestrian and cycle interchange with both bus and rail.	<b>0</b>	Minimal impact anticipated.
<b>Cycling</b>	Cycle parking	Annual programme of investment in cycle parking including public places and residential.	<b>0</b>	Minimal impact anticipated.
<b>Cycling</b>	Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<b>-</b>	New cycle routes through parks and open spaces could have a potential adverse impact on flood risk by providing hard surfacing instead of grass/soil. This will be mitigated via design e.g. choice of appropriate permeable surfacing for cycle routes.
<b>Cycling</b>	Cycle Training	Bikeability training for children and adults; funding to reflect growing demand.	<b>0</b>	Minimal impact anticipated.
<b>Cycling</b>	Cycling Promotion and Enabling	To include promotional activity e.g. Dr Bike sessions; and targeted campaigns cross-cutting into health and physical activity areas.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Safe routes to school capital projects	Also occasional road closure for travel awareness events and air quality improvement.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Awareness Campaigns	The joint borough road safety campaigns across SW London surrounding the Drink Drive, Drug Drive and other road safety related campaigns.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Road Safety Training - school-based programmes	The Road Safety school syllabus includes Theatre in Education, Pedestrian Training, Road Safety Talks and Junior Citizens.	<b>0</b>	Minimal impact anticipated.
<b>Safety and Vision Zero</b>	Safer Urban Driving Training	Safety programme aimed at HGV drivers	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 13: Reduce the risk of flooding</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Safety and Vision Zero</b>	Community Safety Initiatives	To include powered two-wheeler, young driver and older driver programmes. BikeSafe London would also be funded from this budget	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Clapham Junction Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Putney High Street Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Tooting Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Wandsworth Air Quality monitoring & actions	To fund air quality improvements not funded from elsewhere and/or match-fund related bids (e.g. MAQF). In air quality focus area	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Smart Cities Air Quality Pilots	Using technology and innovation to improve air quality and reduce exposure to traffic pollution	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Electric Vehicle Charging Points	Provision of charging infrastructure for public use	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	ULEZ complementary measures	Measures to complement the introduction of the Ultra Low Emission Zone boundary through the borough in 2021. Measures will aim to minimise any adverse boundary effects e.g. via traffic management and raising awareness	<b>0</b>	Minimal impact anticipated.
<b>Environment</b>	Street trees	Ongoing programme to provide new street trees, providing additional canopy cover and adding to street ambience as well as improving air quality	<b>+</b>	Positive impact as trees, and the soil they are planted in, absorb water and will thus reduce the volume and speed of surface run-off.
<b>Environment</b>	Sustainable Freight	Programme to encourage and enable deliveries by sustainable means including pilot projects e.g. local consolidation and emission-free deliveries.	<b>0</b>	Minimal impact anticipated.

<b>SEA Objective 13: Reduce the risk of flooding</b>				
<b>Programme</b>	<b>Scheme</b>	<b>Description</b>	<b>Impact</b>	<b>Commentary</b>
<b>Supporting Measures</b>	School Travel Plan support	Staffing costs and funding for initiatives such as walking buses, theatre in education, school travel plan review workshops, scooter training sessions, small grants for individual school initiatives. Includes an element of funding for air quality actions to reduce emissions near schools such as providing awareness of low pollution routes to and from schools & physical measures to limit car use.	<b>0</b>	Minimal impact anticipated.
<b>Supporting Measures</b>	Mobility forum	Continued funding for two meetings per year to engage disabled and elderly residents on transport issues in the borough	<b>0</b>	No impact - meetings only.
<b>Supporting Measures</b>	Car Club	Ongoing funding for bay reviews and traffic management orders	<b>0</b>	Minimal impact anticipated.
<b>Supporting Measures</b>	Transport information gathering	Use of interactive public-facing software (e.g. Commonplace) to source information from residents on a range of issues inc demand for cycle parking, pedestrian crossings/dropped kerbs, trees, etc. Also to inform areas for attention under "FUTURE PROGRAMMES" above.	<b>0</b>	No impact - gathering of information only.
<b>Alternative Proposals (not included in draft LIP)</b>	Widespread pedestrianisation schemes e.g. town centres	Significant restrictions on vehicular traffic	<b>0</b>	Minimal impact anticipated.
<b>Alternative Proposals (not included in draft LIP)</b>	Reduce car use via new charging mechanisms	E.g. a workplace parking levy	<b>0</b>	Minimal impact anticipated.
<b>Alternative Proposals (not included in draft LIP)</b>	New bus stations	To consolidate and improve bus-bus and bus-rail interchange	<b>0</b>	Minimal impact anticipated.

## 4.6 SEA difficulties and limitations

4.6.1 SEA predictions are often affected by a degree of uncertainty in predicting future environmental impacts of the LIP and the potential alternative options. A number of factors will affect how schemes and programmes will translate to actions on the ground. In addition, the LIP programme will operate alongside other Borough or London-wide programmes as they are brought forward.

4.6.2 It should also be noted that this SEA assessment has relied on qualitative assessment and professional judgement, which are to a degree subjective. However, the scope for quantitative impact predictions, as in project-level Environmental Impact Assessment, is low in SEA due to the nature of strategic action, the associated levels of uncertainty and other external factors influencing the LIP.

## 4.7 Cumulative impacts and inter-relationship of effects

4.7.1 The measures and schemes in the LIP may result in a series of effects which, while insignificant in themselves, may cumulatively be significant. For example, if numerous measures are likely to slightly reduce car use by encouraging trips to be taken by another sustainable mode, each one may have a minimal or minor positive impact, but implemented together there could be a significant reduction in car use, resulting in a major positive impact on many aspects of the environment, such as air quality, climatic factors and biodiversity, flora and fauna.

4.7.2 In some cases the measures will have synergistic effects, that is to say that the cumulative effect is greater than the sum of the individual effects. Using the above example, if four measures in isolation would reduce car use by 5% each, but combined to create a cultural environment where car use was seen as a last resort, rather than the default trip choice option, reducing car use by 40%, this would be a synergistic effect.

4.7.3 In addition, there will be inter-relationships between schemes and programmes which could create a different effect to that of the scheme in isolation.

4.7.4 The LIP schemes have scored well against the SEA assessment framework and, as such, it is unlikely that measures in combination will have cumulative negative effects or inter-relationships which cause negative effects. Nevertheless, the possibilities need to be considered. The most likely cumulative negative impacts are considered to be from construction traffic relating to major development schemes and new transport infrastructure, which disrupt traffic management within the borough and create temporary impacts for the local environment. Particular issues which might need to be addressed in such instances could include traffic disruption, noise and vibration, emissions, potential discovery of archaeological remains, land contamination, dirt and debris, surface water run-off and construction waste management. However, the Council requires Construction Management Plans via the planning process which help to avoid, minimise and mitigate any construction effects on the local environment, as well as on residents and businesses in the surrounding area.

4.7.5 There will be numerous cumulative positive effects, and positive effects which result from the inter-relationship between the measures. These will include the following:

- Cycling measures, and Neighbourhood and Corridor schemes which improve pedestrian and cyclist facilities, bus facilities, public realm, and reduce vehicle speeds, will all encourage mode shift from driving towards more sustainable modes. These measures will combine to produce a greater reduction in car use. This will reduce vehicle emissions and noise levels, which will have a primary positive impact on *Air Quality, Climatic Factors, and Population and Human Health*. In addition, there will be secondary positive impacts in *Biodiversity, Flora, Fauna, Water Environment, Soil Quality and Material Assets*.
- Measures such as those above to improve conditions for pedestrians, cyclists and public transport users could have inter-relationships and synergistic benefits. Many trips are undertaken by a number of modes, e.g. public transport trips begin and end with a walk trip. Therefore improving the walking environment can increase the

accessibility of the public transport network. Thus, in combination, a greater mode shift can be achieved.

- Furthermore, improvements in the walking/cycling environment, education in sustainable travel, and an increase in the attractiveness of local centres via public realm and Healthy Street enhancements, can create a cultural shift away from the car being the dominant mode of transport. This would be a synergistic benefit.
- Street trees can have a number of uses as well as being a biodiversity resource and improving the townscape. As well as absorbing CO<sub>2</sub> from the air, they can also act as a buffer against other pollutants and noise and provide urban cooling benefits. Public realm and corridor schemes, as well as street tree planting in general can use street trees to reduce the spread of pollutants and noise from the carriageway.
- In addition, street trees, and open space in general can lessen flood risk. This can occur by allowing surface run-off to soak into the ground reducing the risk and magnitude of a flood event, and by providing a robust use of flood risk areas such that fewer people and material assets are at risk in a flood event.

## 5 Proposed Mitigation Measures

### 5.1 Mitigation measures

- 5.1.1 Investigating and recommending measures to mitigate the environmental effects of the LIP is a key requirement of the SEA process. The SEA Regulations 2004 require that the SEA must set out the measures designed to prevent, reduce and as fully as possible, offset any significant adverse effects on the environment of implementing the plan or programme.
- 5.1.2 It is important to reiterate that the SEA has demonstrated that the LIP will largely have positive or neutral effects (Table 4.3) and therefore the scope of, and requirement for, mitigation is consequently reduced. This is largely due to the framework of policies, plans and programmes within which the LIP operates, such as the MTS which has itself undergone an SEA. Furthermore, Mayoral Strategies in many SEA subject areas set sustainable objectives and constrain the LIP to strategies and programmes which will generally bring about environmental improvement.
- 5.1.3 A small number of proposals included in the draft LIP have been assessed as having “Negotiable” environmental effects. Mitigation for these proposals is set out in the respective tables for each SEA Objective (Table 4.4-4.18), and are summarised in Table 5.1 below.

Table 5.1: Summary of Mitigation for Proposals in the Draft LIP

LIP Proposal	Summary	SEA Objective(s) Impacted	Nature of Possible Adverse Impact	Proposed Mitigation
Cycle Parking	Annual programme of investment in cycle parking including public places and residential.	<p>8 Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment</p> <p>9 Protect, conserve and enhance the existing varied character and heritage of the Borough.</p>	<p>Cycle parking in public places could detract from the character of an area, e.g. in historic parks or in the vicinity of listed buildings or structures .</p> <p>Cycle parking could detract from the character of an area, including conservation areas.</p>	<p>Through appropriate design and placement.</p> <p>Through appropriate design and placement.</p>
Cycling schemes	Based on TfL strategic cycling analysis, linking to existing infrastructure; informed by cycle network review. Includes potential contraflows, traffic-free routes through parks/open spaces, filtered permeability etc.	<p>1 Conserve biodiversity and maintain and develop a diverse range of trees and open spaces that meet residents' needs.</p> <p>7 Minimise the impact of transport on soils</p> <p>8 Conserve and enhance all cultural and heritage assets and the wider historic environment and increase the enjoyment of the historic environment</p> <p>9 Protect, conserve and enhance the existing varied character and heritage of the Borough.</p>	<p>New cycle routes through parks and open spaces could have a potential adverse impact on biodiversity by providing hard surfacing instead of grass/soil.</p> <p>New cycle routes through parks and open spaces could have a potential adverse impact on soil by providing hard surfacing instead of grass/soil</p> <p>New cycle routes through parks and open spaces could have a potential adverse impact on historic or cultural assets (e.g. historic parks, commons) by providing hard surfacing instead of grass/soil</p> <p>Cycling infrastructure could detract from the character of an area, including conservation areas.</p>	<p>Via design e.g. choice of appropriate materials for cycle routes that do not harm biodiversity or the quality of open spaces, e.g. permeable surfacing.</p> <p>Via design e.g. choice of appropriate materials for cycle routes that minimise the adverse impact on open spaces. Note that there is also a positive benefit for soils as the proposal contributes to mode shift from car leading to reduced levels of vehicular pollution reaching soil.</p> <p>Via design e.g. choice of appropriate materials for cycle routes that minimise impact on open spaces, e.g. permeable surfacing.</p> <p>Through appropriate design.</p>

<b>LIP Proposal</b>	<b>Summary</b>	<b>SEA Objective(s) Impacted</b>	<b>Nature of Possible Adverse Impact</b>	<b>Proposed Mitigation</b>
Redeployable vehicle-activated signs programme	To support borough-wide 20mph speed limit.	9 Protect, conserve and enhance the existing varied character and heritage of the Borough.	Signage and camera infrastructure could have a negative impact on the character of an area	Proposal is for temporary signs to be redeployed in different areas of the borough so any adverse impact would only be for a short period
Electric Vehicle Charging Points	Provision of charging infrastructure for public use	9 Protect, conserve and enhance the existing varied character and heritage of the Borough.	Electric vehicle charging infrastructure could detract from the character of an area, including conservation areas.	Through appropriate design and placement.

## 6 Monitoring

### 6.1 Monitoring measures

6.1.1 It is requirement of the LIP that it will be measured against various performance indicators relating to desired outcomes of the Mayor's Transport Strategy.

6.1.2 In addition, the SEA Regulations also require that a description of measures envisaged for monitoring the environmental effects of the plan or programme are identified within the Environmental Report.

6.1.3 The SEA Statement will finalise the monitoring framework for the SEA. Proposed monitoring measures are summarised in Table 6.1. It is possible that the monitoring regime of the LIP specified by the SEA could change following further consultation prior to publication of the SEA Statement

**Table 6.1: Potential SEA Monitoring Measures**

SEA Topic Area	Performance indicator	Data Availability
Biodiversity, flora and Fauna	Number of street trees in the Borough	Yes - Available from LB Wandsworth and TfL
Air	Emissions from roadside air quality monitoring	Yes - Monitoring as part of the Air Quality Action Plan
Climatic factors	Number or % of journeys made by sustainable modes	Yes - To be monitored as part of the Performance Monitoring for the LIP
	% of CO <sub>2</sub> emitted from road transport	Yes - To be monitored as part of the Performance Monitoring for the LIP
Population and Human Health	Number of transport related noise complaints	Not currently available
	Progress towards national and London targets for reductions in casualties and casualty rates	Yes - To be monitored as part of the Performance Monitoring for the LIP
Soil	Number of transport schemes affecting soil	Not currently available
Cultural heritage	Number of heritage sites affected by LIP proposals	Not currently available
Landscape and townscape	Number of projects aimed at improving landscape and streetscape	Not currently available
Material assets	% of highway condition in satisfactory or better condition	Yes – LB Wandsworth undertakes annual surveys of highways condition
Water	Number of schemes affecting the water environment	Not currently available
	Number of water pollution incidents attributed to transport	Not currently available
	Total area at risk of flooding	Yes – LB Wandsworth has undertaken a Strategic Flood Risk Assessment

## 7 Next Steps

### 7.1 Remaining stages for the SEA

7.1.1 The remaining activities of the SEA include the undertaking of consultation on the SEA Environmental Report and the draft LIP. Consultation includes the three Statutory environmental bodies (the Environment Agency, Natural England and English Heritage) and wider consultation with local stakeholders and the public. An SEA Statement will then be produced to accompany the final LIP. The final stage of the SEA will be the specification of a monitoring framework for the LIP to collect data on progress with its implementation.

### 7.2 Consultation

7.2.1 This SEA Environmental Report is published alongside the draft LIP for consultation. The SEA Directive requires that authorities with environmental responsibilities and the public likely to be affected, or having an interest in, the plan are consulted.

7.2.2 Comments are sought on the SEA Environmental report by 7<sup>th</sup> February 2019.

### 7.3 Procedure for considering consultation responses

7.3.1 Responses to the Environmental Report arising from the consultation process will be collated and assessed in terms of their relevance to the environmental effects of implementing the LIP programme and its alternatives. Consideration will be given to the environmental significance of the issues raised and the likelihood of any resulting impact having a significant positive or negative impact on the environment.

7.3.2 Following consideration of responses, significant issues that have been identified will be reported and commented on in the SEA Statement.

### 7.4 Contact details

7.4.1 Contact details for commenting on the SEA Environmental Report of the Wandsworth LIP are as follows:

Andy Flood  
Principal Transport Planner  
Environment and Community Services  
Wandsworth Council  
The Town Hall  
Wandsworth High Street  
London  
SW18 2PU

Email: [transportation@wandsworth.gov.uk](mailto:transportation@wandsworth.gov.uk)

### 7.5 Adoption of the final LIP and SEA Statement

7.5.1 The final Wandsworth LIP, as approved by the Mayor of London, will be accompanied by an SEA Statement, which will document how any changes as a result of the consultation were incorporated in the LIP. This statement will also include information on how environmental considerations have been taken into account in the LIP.

7.5.2 This statement will be produced after the LIP has been adopted. Its purpose is to demonstrate the action taken by the Borough during the development of the SEA and LIP to produce a better environmental outcome. It shows that the environment has been considered at every stage and that the information collated has influenced the final shape of the LIP and SEA process.

# Appendix 1

## Checklist of Advice on SEA from Historic England

### General comments on SEA process:

#### Key Plans and Programmes

When considering key plans and programmes, we recommend the inclusion and consideration of the following:

#### International/European

- UNESCO World Heritage Convention
- European Landscape Convention
- The Convention for the Protection of the Architectural Heritage of Europe
- The European Convention on the Protection of Archaeological Heritage

#### National

- Planning (Listed Buildings & Conservation Areas) Act 1990
- Ancient Monuments & Archaeological Areas Act 1979
- Government's statement on the Historic Environment
- National Planning Policy Framework
- National Planning Policy Guidance

#### Local

- Local Plans
- Historic Environment Record
- Heritage/Conservation Strategies
- Other Strategies (e.g. Thames Strategy)
- Conservation Area Character Appraisals and Management Plans
- Listed building Heritage Partnership Agreements

#### Key Sustainability Issues

We would suggest that the starting point for considering Key Sustainability Issues for the Historic Environment should include:

- Conserving and enhancing designated and non-designated heritage assets and the contribution made by their settings
- Heritage assets at risk from neglect, decay, or development pressures;
- Areas where there is likely to be further significant loss or erosion of townscape character or quality, or where development has had or is likely to have significant impact (direct and or indirect) upon the historic environment and/or people's enjoyment of it

- Traffic congestion, air quality, noise pollution and other problems affecting the historic environment

Transport issues such as congestion and high levels of air pollutants can be a considerable factor when experiencing the historic environment and individual heritage assets. The wider context within which the historic environment is experienced is an important aspect of its setting and therefore its significance. Setting goes beyond visual links to include atmospheric factors such as noise, dust, vibration and pollution which can detract from the accessibility to and enjoyment of the historic environment. Equally, the increase in environmental aggressors deriving from emissions that could accelerate the erosion and decline of historic fabric are also an issue. We would encourage you to ensure that these issues are considered within the context of the historic environment as part of the on-going SEA process. We have recently updated our advice note on the concept of setting which may be helpful, this is available here:

*Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (2nd Edition)* <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>

Transport infrastructure and strategies, both large scale and small, can have adverse visual impacts upon local areas through the siting of signage, road markings, pavement works, crossings etc. These impacts can affect the character and appearance of individual heritage assets such as conservation areas. Consideration of the current condition of heritage assets within the Borough and any related observable trends can help in drawing conclusions regarding the likely environmental trajectory without the Transport Strategy and Local Implementation Plan and how this might change should these be adopted. Key sustainability issues relating to the historic environment might then also include:

- Heritage at Risk, opportunities to improve, enhance or better reveal the significance of heritage assets and their settings;
- Areas where there is a threat or likelihood of further erosion of townscape character as a result of transport strategies or potentially the impact of people's enjoyment of the historic environment

#### SEA Objectives:

Ideally we would expect to see a standalone objective which considers cultural heritage with specific reference to both designated and non-designated heritage assets and their settings. It should also seek to monitor improvements relating to the ability of people to access and enjoy the historic environment. This can be achieved through targets that seek to:

- Reduce adverse traffic impacts on the historic environment
- Maximise opportunities to improve the historic environment through appropriate transport infrastructure and public realm upgrades
- Promote appropriate streetscape improvements, including reducing unnecessary street clutter
- Support upgrades to public transport infrastructure which widens access to the historic environment

Possible indicators that could be used in relation to this objective include:

- Number of assets removed from the 'At Risk' Register
- Number of locally listed buildings

The inclusion of a separate SEA Objective that seeks to 'Protect, conserve and enhance the existing and varied character and townscape of the borough' would also be helpful given the potential impacts that transport strategies and projects may have.

Further examples of potential SEA objectives are detailed within guidance Historic England Advice Note 8: *Sustainability Appraisal and Strategic Environmental Assessment*.

### Evidence base

The baseline evidence should address the historic environment rather than being focused on transport data. It is understood that the Transport Strategy will necessarily be a high level document but there should still be a consideration of the historic environment within it. Baseline Information should describe the current and likely future condition of the historic environment in terms of its significance and capacity to accommodate change. This should also help to identify areas that will be of particular sensitivity to development; help identify sustainability issues; inform monitoring indicators; and identify alternative solutions. Sources of for assembling information and baseline data for the historic environment should include:

- The National Heritage List for England [www.historicengland.org.uk/the-list/](http://www.historicengland.org.uk/the-list/)
- The Heritage Gateway [www.heritagegateway.org.uk](http://www.heritagegateway.org.uk)
- Local Historic Environment Records (HER)
- Conservation Area Appraisals and Management Plans , Urban Design Frameworks, Area Action Plans and SPDs
- National Heritage at Risk Register
- Non-designated or locally listed heritage assets (buildings, monuments, parks and gardens, areas)
- Historic characterisation assessments e.g. the Extensive Urban Surveys and Historic Landscape/Townscape Characterisation Programme or more local documents. [www.archaeologydataservice.ac.uk/archives/view/EUS/](http://www.archaeologydataservice.ac.uk/archives/view/EUS/)
- Visual impact assessments.

We would suggest that the Borough's local conservation officers will be well placed to ensure appropriate consideration of historic building/archaeological issues and would request their involvement from this point in the process.

Referring to the HER demonstrates that you have considered sources of evidence which will give an accurate local cross-section of local level conditions with regards to the state of the historic environment. The HER is particularly useful in terms of archaeology as an understanding of potentially sensitive sites i.e. sites where finds have been found and recorded but which are not designated or if there is a locally known but undesignated site for example, can prevent problems arising further in the Transport Strategy and Local Implementation Plan process with regards to site conditions for specific projects.