

Report

8th February 2019



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Report for – London Borough of Croydon
Local Implementation Plan
Strategic Environmental Assessment – Environmental Report

Draft



Document version control

Version	Date	Author	Reviewed by	Reviewed and approved by
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Report for: **London Borough of Croydon**

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1.0 Non-Technical Summary

1.1 Introduction

This report sets out the outcomes of the Strategic Environmental Assessment (SEA) of the proposals in the London Borough of Croydon's third Local Implementation Plan (LIP). The LIP is a statutory document, prepared under Section 145 of the Greater London Authority Act 1999. The LIP guides transport priorities and projects and details a three-year programme of investment (2019/20 to 2021/22) to implement the Mayor of London's Transport Strategy (MTS).

To deliver the Mayor's vision – *"to create a future London that is not only home to more people but is a better place for all those people to live in"* - the overarching aim of the MTS is for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041. The Mayor is seeking to achieve his vision by achieving the following three MTS outcomes:

- Healthy Streets and healthy people, including traffic reduction strategies:
- A good public transport experience: and
- New homes and jobs.

This LIP will replace the council's second LIP (2011). The third round of LIPs will become effective from April 2019.

1.2 Summary of the LIP

Croydon's LIP sets out the LB Croydon's proposals for implementing the Mayor's Transport Strategy including a timescale for implementing the proposals. It includes Croydon's transport objectives and identifies key local issues, challenges and opportunities to achieving the overarching mode share aim and the Mayor's Transport strategy nine outcomes. The LIP has 14 objectives set out below and the SEA focuses on assessing these and their associated measures.

1. Reduce reliance on the car for local in-borough car journeys by creating streets and a transport network that prioritises walking, cycling and public transport.
2. Reduce the number of local car trips and ensure that by 2021/22 at least 50% of all journeys made residents are by walking, cycling and public transport. By 2041, 63% of all journeys made by residents are by walking, cycling and public transport.
3. Create healthy streets and neighbourhoods that encourage walking and cycling, and where traffic volumes and speeds are low.
4. Improve accessibility for pedestrians and cyclists through increased priority at key junctions and reduced severance caused by major roads, railway lines and parks.
5. Implement and deliver the network of cycle routes outlined in the Croydon Cycle Strategy.
6. Support and deliver the principles of the Vision Zero Action Plan and work towards ensuring we have the safest roads in London with no killed or serious injuries on our roads by 2041.

7. Reduce the volume of traffic on our roads and associated congestion through better management of our roads and kerbside space, and by offering pleasant, practical and safe alternatives to private cars and vans.
8. Tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.
9. Work with the Mayor, TfL, Network Rail, bus operators and TOCs to improve public transport links, reduce overcrowding on the public transport network and ensure Croydon is the best-connected Metropolitan Town Centre in Outer London.
10. Work with the Mayor, TfL, Network Rail, bus operators and TOCs to ensure the entire public transport network is accessible, safe and step free.
11. Work with TfL to introduce additional bus priority measures on key road corridors to improve efficiency and reliability of bus services.
12. Lobby the TOCs and the DfT to improve performance of train services and reduce gaps in service frequencies.
13. Ensure all new development incorporates the ten Healthy Streets principles into their design, and ensure they are integrated with the local walking and cycling networks as well as public transport.
14. Work with key partners to increase public transport capacity in the borough to support the creation of new homes and jobs planned over the next two decades, including the extension of the tram to Crystal Palace and Brighton Mainline Upgrade.

Each Local Overarching Objective is supported by a number of short to medium term delivery objectives & proposals (2019-2025) and additionally longer-term goals (Up to 2041).

1.3 Approach to the SEA

The SEA has been undertaken using the TfL/GLA framework that was developed to satisfy SEA requirements for plans and strategies produced by the Mayor of London as the basis for the current assessment, augmented by issues highlighted in the SEA Scoping Report and consulted on with the statutory environmental bodies. The assessment of effects has been based on the professional judgements of our SEA team, evidenced by information from the LIP3 MTS Outcomes Borough data pack that was provided to the London Boroughs by TfL.

The environmental baseline information collated for the SEA, together with the outcomes of the Integrated Impact Assessment undertaken for MTS3 and other information on the specific proposals likely to come forward through the LIP were used to identify the existing relevant sustainability issues.

To meet the requirements of the SEA Regulations, it has been assumed that the only real reasonable alternative to the LIP proposals is the “do-nothing” scenario.

There are three European designated sites and three Sites of Special Scientific Interest within 10km of Croydon which fall under the Habitat Regulations. This assessment has concluded that there would be no significant environmental effects arising from the implementation of the LIP on these designated areas that would affect the conservation objectives of those sites. On this basis no further assessment work has been undertaken.

1.4 Outcomes of the SEA

The SEA concludes that no significant adverse environmental effects will result from the implementation of the LIP in Croydon. As such, no specific recommendations for the mitigation of effects are required. All the effects identified are either considered to have no impact or will be positive. In some cases, the LIP may have positive or negative effects but the level of information available at a time of assessment does not allow a clear judgement to be made.

The main effects of the 14 objectives of the LIP (see **paragraph 1.2**), grouped under the 10 outcomes, are listed below.

Overarching Borough objective and goals (Objectives 1 and 2)

The objectives and associated measures will support emissions reduction and associated with this improvements in air quality. They will also support healthy streets and increases in active travel in the borough.

Outcome 1: London's streets will be healthy and more Londoners will travel actively (Objectives 3-5)

The objectives and associated measures will directly support an increase in active travel in the borough which will have multiple health and environmental benefits. They will support improvements and use of the public realm and green spaces creating healthier neighbourhoods and broadly support emissions reduction and associated air quality improvements.

Outcome 2: London's streets will be safe and secure (Objective 6)

The objectives and associated measures will directly support safer and more secure transport network and neighbourhoods supporting liveability and character of streetscapes and townscapes.

Outcome 3: London's streets will be used more efficiently and have less traffic on them (Objective 7)

The objectives and associated measures will directly support the liveability and character of streetscapes and townscapes and also broadly support emissions reduction and associated air quality improvements.

Outcome 4: London's streets will be clean and green (Objective 8)

The objectives and associated measures will directly support the liveability and character of streetscapes and townscapes and also broadly support emissions reduction and associated air quality improvements.

Outcome 5: The public transport network will meet the needs of a growing London (Objective 9)

The objectives and associated measures will support improvements to and better use of public transport, associated emissions reduction over private vehicle use and associated improvements in air quality.

Outcome 6: Public transport will be safe, affordable and accessible to all (Objective 10)

The objectives and associated measures will support improvements to and better use of public transport, ensuring this is safer and more secure.

Outcome 7: Journeys by public transport will be pleasant, fast and reliable (Objectives 11 and 12)

The objectives and associated measures will directly support improvements to and better use of public transport, associated emissions reduction over private vehicle use and associated improvements in air quality.

Outcome 8: Active, efficient and sustainable travel will be the best option in new developments (Objective 13)

The objectives and associated measures will directly support the appeal, attractiveness and use of new developments. They will also support active travel and associated improvements in air quality achieved by the reductions in emissions and help achieve health and wellbeing benefits.

Outcome 9: Transport investment will unlock the delivery of new homes and jobs (Objective 14)

The objectives and associated measures will directly support the provision of new homes and access to jobs in the borough. They will also support associated improvements in air quality achieved by the reductions in emissions.

The implementation of the short-term actions set out in the LIP would not have any significant environmental benefits, although this is typically because the three-year time horizon of the short-term programme does not provide enough time for significant effects to be delivered. However, the programme will help in terms of air quality, the attractiveness of neighbourhoods, inclusivity, mental and physical wellbeing, mobility and regeneration.

The longer-term actions set out in the LIP, if funded and delivered, would significantly improve the attractiveness of neighbourhoods and mobility. They will also help in terms of climate change mitigation, energy efficiency, inclusivity, mental and physical wellbeing and regeneration.

1.5 Monitoring

The draft Strategy and LIP do not currently include specific proposals for environmental monitoring. However, it is recommended that key indicators from the set compiled by the London Sustainable Development Commission (LSDC) on Quality of Life issues be used by Croydon Council to monitor the environmental effects of the final Strategy and LIP.

1.6 Next Steps

The LIP was submitted to Transport for London in autumn 2018 for comment. Croydon Council conducted a public consultation exercise on the LIP proposals until 20th January 2019. Taking account of the comments received from TfL and the outcomes of the consultation, together with the analysis presented in this Environmental Report, Croydon Council will make any revisions to the LIP that may be necessary, and a final version of the LIP will be approved in spring 2019.

Following this, Croydon Council will publish a Post-Adoption Statement to summarise the way that consultation has influenced the assessment process, demonstrating how feedback has been considered, identifying changes that have been made and the reasons for choosing the preferred policies and options.

In line with the requirements of the SEA Regulations, the Borough Council will monitor the effects of the LIP. This will feed into any future LIP progress reporting.

2.0 Introduction

2.1 About the Environmental Report

This report sets out the outcomes of the Strategic Environmental Assessment (SEA) of the proposals in the London Borough of Croydon's third Local Implementation Plan (LIP).

To meet the requirements of the Environmental Assessment of Plans and Programmes Regulations 2004, local authorities are required to carry out Strategic Environmental Assessment (SEA) for policies, plans and programmes across various areas, including transport¹. Government guidance on transport plans stresses the importance of the SEA being an integral part of developing and delivering a transport strategy. The statutory environmental agencies (i.e. the Environment Agency, Natural England and Historic England) must be involved throughout the development and monitoring of a plan.

A Scoping Report for the SEA² was forwarded to the three statutory consultation bodies by the London Borough of Croydon at the end of 2018. This report takes account of the comments received from these bodies on the Scoping Report including the comments provided by Historic England on the baseline³. It updates and extends the baseline environmental information on which the SEA is based.

2.2 Overview of the Local Implementation Plan (LIP)

The LIP is a statutory document, prepared under Section 145 of the Greater London Authority Act 1999. This Act requires each of London's 33 local authorities to prepare a LIP containing proposals for the implementation of the Mayor's Transport Strategy⁴ in their area.

The LIP guides transport priorities and projects and details a three-year programme of investment (2019/20 to 2021/22).

The central aim of the MTS – the Mayor's vision – is to create a future London that is not only home to more people, but is a better place for all those people to live in. The overarching aim of the Strategy is for 80% of all trips in London to be made on foot, by cycle or using public transport by 2041, compared to 63% today. The Mayor is seeking to achieve his vision by focusing the policies and proposals in his transport strategy on the achievement of the following three overarching MTS outcomes:

- **Healthy Streets and healthy people, including traffic reduction strategies:**
 - Active: London's streets will be healthy, and more Londoners will travel actively.
 - Safe: London's streets will be safe & secure.

¹ The Environmental Assessment of Plans and Programmes Regulations 2004 (Statutory Instrument 2004/1633).

² Temple and Steer (2108) - **Local Implementation Plan: Strategic Environmental Assessment Scoping Report** – London Borough of Croydon, November 2018.

³ Natural England's response indicated they had "no comments" to make on the Scoping Report whilst the Environment Agency's Local Transport Plan checklist for SEAs, provided by way of response to SEA Scoping consultations, was referred to in the preparation of this Environment Report.

⁴ Mayor of London (2018) – **Mayor's Transport Strategy** - Greater London Authority, March 2018

- Efficient: London's streets will be used more efficiently & have less traffic on them.
- Green: London's streets will be clean and green.
- **A good public transport experience:**
 - Connected: The public transport network will meet the needs of a growing London.
 - Accessible: Public transport will be safe, affordable and accessible to all.
 - Quality: Journeys by public transport will be pleasant, fast and reliable.
- **New homes and jobs:**
 - Good Growth: Active, efficient and sustainable travel will be the best option in new developments.
 - Unlocking: Transport investment will unlock the delivery of new homes and jobs.

The rationale and detail of each of these outcomes is set out in the third MTS. The LIP responds to the third MTS, the Sub Regional Transport Plan (south) and other relevant policies. This LIP will replace the council's second LIP (2011). The third round of LIPs will become effective from April 2019.

The LIP does not set out binding policies, rather it pulls together key objectives, policies, themes and priorities from other documents and looks at what can be achieved in the next five years given the availability of resources. It also acts as bridge between existing planning documents and any proposed changes to the Local Development Framework, which will set out strategic policies and priorities in relation to transport.

A summary of the key proposals of the LIP are provided in **Section 3.3**.

2.3 Compliance with the SEA Regulations

Table 2.1 below sets out the requirements of the SEA Regulations and where this information can be found in this report.

Table 2.1: SEA Requirements⁵ and where covered in the Environmental Report

Requirement	Where found
Outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes.	Sections 3.2 and 3.3
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Section 4.0
The environmental characteristics of areas likely to be significantly affected.	Section 4.0
Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated under Directive 79/409/EEC and the Habitats Directive.	Sections 4.0 and 5.3

⁵ Based on SEA Regulations 2004 No. 1633, Schedule 2.

Requirement	Where found
The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.	Section 3.7
The likely significant effects on the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage (including architectural and archaeological heritage); landscape; and the inter-relationship between these.	Section 5.4
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	Section 5.4
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Section 5.2
A description of the measures envisaged concerning monitoring.	Section 5.5
A non-technical summary	Section 1.0

2.4 Report Structure

Following this introductory section, the structure of this report is as follows:

- The context of the LIP and its likely scope, including identification of other policies, plans, programmes and sustainability objectives (**Section 3**);
- Baseline environmental conditions, and how these might change in the absence of the LIP; (**Section 4**);
- The SEA objectives and framework providing the assessment the environmental effects of the LIP and alternatives, together with an overview of the proposed approach to undertaking the assessment. This section also identifies any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the LIP (**Section 5**); and
- The next steps in the SEA process (**Section 6**).

3.0 Context and Scope of the LIP

3.1 Introduction

In this section, the context and scope of the draft LIP for the London Borough of Croydon is described based on work completed by the Council to date. This sets out:

- The background policies that shape the proposals to be set out in the LIP, and other associated documents.
- The area to be covered by the LIP and therefore forming the assessment area for the SEA.
- The timescales of the LIP and the SEA.

3.2 Policy Context

3.2.1 The Mayor's Transport Strategy

The Mayor's Transport Strategy (MTS) is described in outline in **Section 1.2** above. As noted, the central aim of the MTS for London is not only to be home to more people, but better place for all Londoners. This requires 80% of all trips in London to be made on foot, by cycle or using public transport by 2041, compared with 63% today.

3.2.2 The Sub Regional Transport Plan (South)

This Plan⁶ is part of an ongoing programme enabling Transport for London (TfL) to work closely with the London boroughs in south London to address strategic issues, progress medium-longer term priorities and respond to changing circumstances. The Plan translates the MTS goals, challenges and outcomes at a sub-regional level. While these needed to be considered across London, and addressed locally through LIPs, there are some matters which benefit from having a concerted effort at a sub-regional level. Challenges including improving air quality (to meet and exceed legal requirements), meet CO₂ emission targets and transform the role of cycling and walking are better dealt with at sub-regional level across London.

Sub-regional challenges specifically identified for the south sub-region in London were to:

- Reduce public transport crowding;
- Improve access to, from and within key places
- Improve connectivity (along identified corridors);
- Reduce highway congestion.

The following summarise the context for the adaptation and development of the transport network in south London:

- London's population will continue to grow, generating more demand for transport

⁶ Mayor of London (2016) – **South London: Sub-regional Transport Plan** – 2016 update, Transport for London.

- Insufficient levels of housing are a risk to London's competitiveness. Transport is key to unlocking new homes
- Future employment growth in office-based sectors will increase demand for rail based modes
- The sub-region's population will continue to grow, along with its housing need
- There is potential to support higher levels of population growth than currently being planned for
- Some major growth locations will need better public transport connectivity to unlock development
- The proportion of older people will increase, generating more demand for an accessible transport network
- There is potential to support higher levels of employment growth at key transport nodes
- The number of vans on the highway network will continue to grow
- Public transport mode share will continue to increase, but only if capacity is increased to accommodate growth
- Highway congestion will get worse without many more people switching to alternative modes
- Increased levels of congestion will slow bus services, which are a vital element of the public transport network in the sub-region
- Without investment in the rail network, many lines will be at capacity, constraining growth
- With planned levels of investment in the rail network, there will be sufficient capacity to support growth to 2031
- But further investment on the rail network above that already committed will be required to support higher levels of growth
- The number of jobs accessible by public transport will increase, although congestion will reduce access to jobs by car in some areas
- Air quality is expected to improve with technology, but more will need to be done

3.3 Croydon Council's Corporate Plan, Local Plan and Transport Vision

Croydon Council's Corporate Plan sets out a vision to deliver outcomes including:

- Build on the 'Choose Your Future' campaign and, together, tackle the blight of knife crime;
- Be one of London's greenest boroughs;
- Work in partnership with the NHS to provide good quality health services for Croydon's population;
- Work towards providing homes affordable for all; and

- Abolish inequality in Croydon and work towards a place where all have an equal opportunity to prosper.

It also sets out relevant key themes and ambitions:

- Transport and environment
- Creating jobs and growing the economy
- A healthier Croydon

Growth:

- To enable more local people to access a wider range of jobs
- To create a place where people and businesses want to be

Independence:

- To help people from all communities live longer, healthier lives through positive lifestyle choices

Liveability:

- To build a place that is easy and safe for all to get to and move around in
- To improve wellbeing across all communities through sport and physical activity

Croydon's Local Plan 2018 has the following Policies relevant to the LIP:

- Strategic Objective 1 – establish Croydon as the premier business location in South London and the Gatwick Diamond;
- Strategic Objective 4 – reduce social, economic and environmental deprivation;
- Strategic Objective 8 – improve accessibility, connectivity, sustainability and ease of movement to, from and within the Borough.

In 2015 Croydon developed its Transport Vision 'A Transport Vision for Croydon - Moving Towards a More Liveable Place'. The Strategy aims to greatly improve how the transport system works in Croydon to support the Council's aspirations for new housing and jobs in the borough. It also aims to promote healthier forms of travel like walking and cycling, so reducing carbon emissions and improving air quality. It sees the shift to this more sustainable, accessible, active and health travel to be central to building a sustainable future for Croydon. The following policies have influenced the direction of the LIP:

- Increasingly connected - enhancing national and international links and ensuring Croydon is a place that is easy to get to and through
- Better places – turning challenges into opportunities such as switching the many short car trips to walking and cycling
- Safer and calmer – reducing road user casualties such as through training and education and 20mph speed limits

- Mixed Modality – achieving a walking and cycling environment with the aim for a more liveable city; reducing the need to own a car
- A Healthy City – ensuring clean air is enjoyed by all by widening travel choices and ensuring active travel is available to all

3.3.1 Community Strategy 2015-2021, Croydon’s Corporate Plan 2015-2018 and Ambitions for Croydon Corporate Plan 2018-2022

Croydon’s community strategy (2015-2021) sets out the following policies that are relevant to the LIP:

- Outcome 1 – a great place to learn, work and live
- Outcome 2 – a place of opportunity for everyone
- Outcome 3 – a place with a vibrant and connected community and volunteer sector
- Connected - a place that is well connected, easy to get to and around, and supported by an infrastructure that enables people to easily come together; with one of the best digital, communications and transport networks in the country
- Sustainable - a place that sets the pace amongst London boroughs on promoting environmental sustainability and where the natural environment forms the arteries and veins of the borough

3.4 Summary of the LIP

Croydon’s transport objectives in the LIP are designed to help achieve the overarching mode share target for Croydon and for London, as well as delivering against the various mayoral outcomes identified in the MTS. The focus of the LIP is in accordance with the 14 objectives below. The two first objectives are overarching Borough objectives and goals, with the remaining objectives relate to nine Mayor’s Transport Strategy outcomes.

Changing the transport mix - Overarching Borough objectives and goals.

1. Reduce reliance on the car for local in-borough car journeys by creating streets and a transport network that prioritises walking, cycling and public transport.
2. Reduce the number of local car trips and ensure that by 2021/22 at least 50% of all journeys made residents are by walking, cycling and public transport. By 2041, 63% of all journeys made by residents are by walking, cycling and public transport.

Outcome 1: London’s streets will be healthy and more Londoners will travel actively.

3. Create healthy streets and neighbourhoods that encourage walking and cycling, and where traffic volumes and speeds are low.
4. Improve accessibility for pedestrians and cyclists through increased priority at key junctions and reduced severance caused by major roads, railway lines and parks.
5. Implement and deliver the network of cycle routes outlined in the Croydon Cycle Strategy.

Outcome 2: London’s streets will be safe and secure.

6. Support and deliver the principles of the Vision Zero Action Plan and work towards ensuring we have the safest roads in London with no killed or serious injuries on our roads by 2041.

Outcome 3: London's streets will be used more efficiently and have less traffic on them.

7. Reduce the volume of traffic on our roads and associated congestion through better management of our roads and kerbside space, and by offering pleasant, practical and safe alternatives to private cars and vans.

Outcome 4: London's streets will be clean and green.

8. Tackle road based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.

Outcome 5: The public transport network will meet the needs of a growing London.

9. Work with the Mayor, TfL, Network Rail, bus operators and TOCs to improve public transport links, reduce overcrowding on the public transport network and ensure Croydon is the best connected Metropolitan Town Centre in Outer London.

Outcome 6: Public transport will be safe, affordable and accessible to all

10. Work with the Mayor, TfL, Network Rail, bus operators and TOCs to ensure the entire public transport network is accessible, safe and step free.

Outcome 7: Journeys by public transport will be pleasant, fast and reliable

11. Work with TfL to introduce additional bus priority measures on key road corridors to improve efficiency and reliability of bus services.
12. Lobby the TOCs and the DfT to improve performance of train services and reduce gaps in service frequencies.

Outcome 8: Active, efficient and sustainable travel will be the best option in new developments

13. Ensure all new development incorporates the ten Healthy Streets principles into their design, and ensure they are integrated with the local walking and cycling networks as well as public transport.

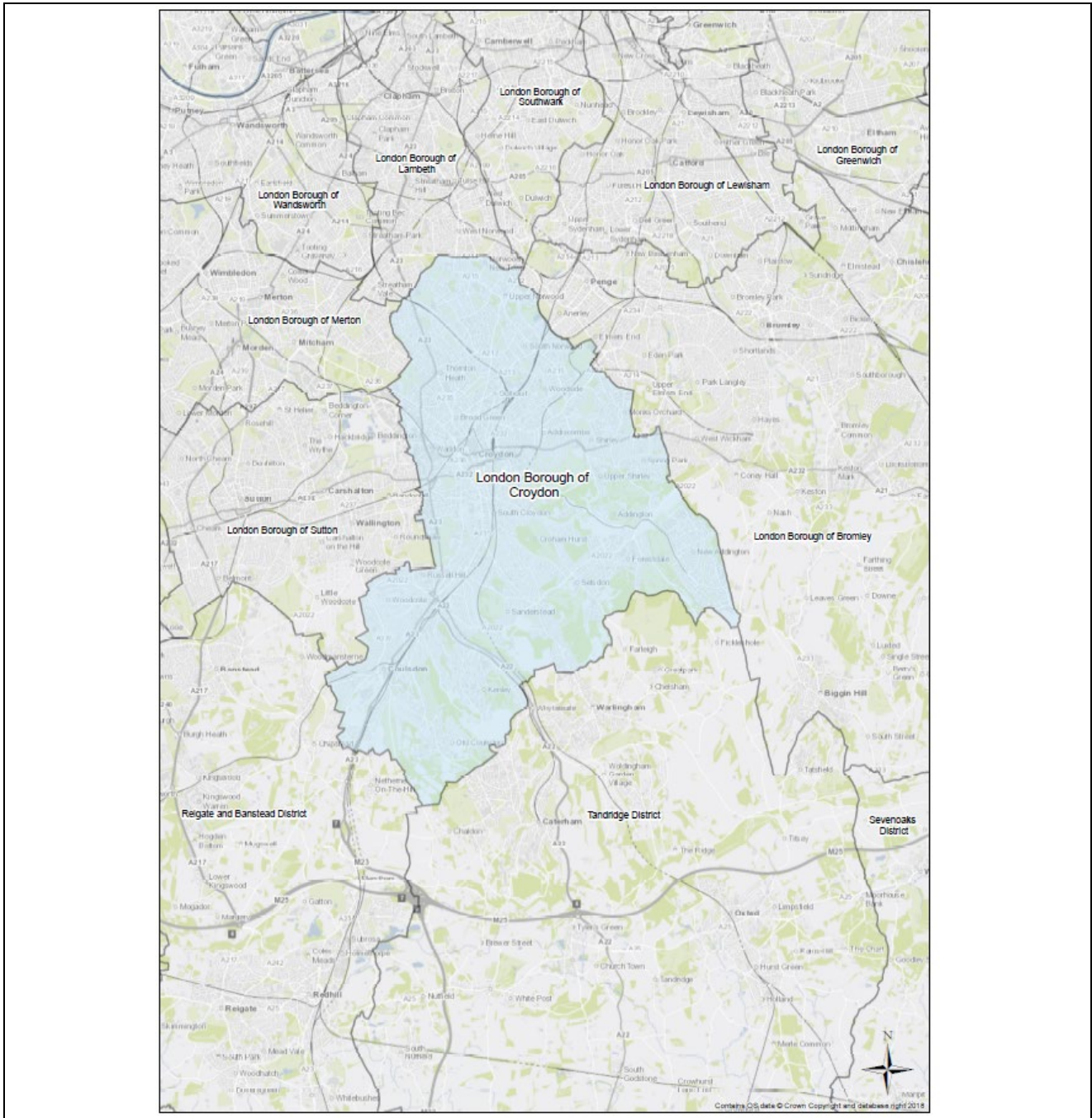
Outcome 9: Transport investment will unlock the delivery of new homes and jobs'

14. Work with key partners to increase public transport capacity in the borough to support the creation of new homes and jobs planned over the next two decades, including the extension of the tram to Crystal Palace and Brighton Mainline Upgrade.

3.5 Defining the assessment area

The spatial scope for the SEA is the London Borough of Croydon area. The SEA also takes account of potential impacts on adjoining boroughs and districts as appropriate. **Figure 3.1** below shows a map of the London Borough of Croydon area.

Figure 3.1: London Borough of Croydon area and adjoining boroughs



3.6 Timeframe for the Plan

The LIP includes policies and proposals that cover the period up to 2041. The LIP is expected to identify aspirational objectives and potential (more major) schemes to 2041 as well as shorter term objectives and a programme of investment for the first three years. This is therefore also the timeframe for the SEA.

3.7 Other Policies, Plans, Programmes and Sustainability Objectives

3.7.1 National and Regional Policies

The most relevant plans and programmes at a national and regional (i.e. London-wide) level used as the basis to inform the objectives included in the appraisal framework for the SEA (See **Section 5.0**) are set out in **Table 2.1** below.

Table 2.1: Relevant National and Regional Policies reflected in the SEA Objectives

Topic	Policy Document
All Topics	A Green Future: Our 25 Year Plan to Improve the Environment (2018)
	The London Plan: The Spatial Development Strategy for London (2016)
	The New London Plan: Draft for Public Consultation (2017)
	Mayor of London's Environment Strategy (2017)
	National Planning Policy Framework (2018)
Air Quality	Air Quality Standards Regulations 2010
	Defra's Air Quality Plan (2016)
	Environment Act 1995
	EU Ambient Air Quality Directive (2008/50/EC)
	The Greater London Authority Act 1999
Climate Change Adaptation	Climate Change Risk Assessment (CCRA)
	EC White Paper: Adapting to Climate Change
	National Adaptation Programme (NAP)
	UK Low Carbon Transition Plan (2009)
Climate Change Mitigation	Climate Change Act 2008
	Promotion of the Use of Energy from Renewable Sources Directive (2009/28/EC)
	United Nations Framework on Climate Change COP21 (2015) – Paris Agreement-
Fairness and inclusivity	Equality Act (2010)
Flood Risk	UK Water Strategy (2008)
Geology and Soils	England Soil Strategy, Safeguarding our Soils (2009)
	EU Environmental Liability Directive (99/31/EC)
Historic Environment	Ancient Monuments and Archaeological Areas Act 1979
	Planning (Listed Buildings and Conservation Areas) Act 1990
Materials and Waste	EU Waste Framework Directive (2008/98/EC)
	National Planning Policy for Waste (2014)
	Waste (England and Wales) (Amendment) Regulations 2014
	Conservation of Habitats and Species Regulations 2010

Topic	Policy Document
Natural Environment and Natural Capital	Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora 92/43/EEC
	Directive on the Conservation of Wild Birds 09/147/EC
	Natural Environment and Rural Communities Act 2006
	The Natural Choice – securing the value of nature (2011)
	Wildlife and Countryside Act 1981
Noise and Vibration	Environmental Noise (England) Regulations 2006
	EU Noise Directive (2000/14/EC)
Water Resources and Quality	Final Water Resources Management Plan 14 (WRMP14), 2015-2040 (Thames Water, July 2014) and Annual review June 2016; Affinity Water 2014 Water Resources Management Plan
	Thames River Basin District River Basin Management Plan (Environment Agency, December 2015)

3.7.2 London Borough of Croydon Policies

The following policy documents published by the London Borough of Croydon have also been used to inform the SEA objectives:

- State of the Environment Report 2010: Croydon Strategic Partnership 2010
- Croydon Joint Strategic Needs Assessment (topic area papers 2009-2017)
- Croydon Local Plan 2018
- Croydon Local Plan Sustainability Appraisal and Health Impact Assessment 2018
- Croydon Infrastructure Delivery Plan 2017
- Croydon Local Plan: Technical paper – Transport and Communication 2017
- A Transport Vision for Croydon 2015
- Croydon’s Cycling Strategy 2018-23
- Mayor of London, Sub-regional Transport Plan South
- Borough Character Appraisal, London Borough of Croydon 2015
- Air Quality Action Plan 2017-2022
- London Borough of Croydon, Local Flood Risk Management Strategy 2015-2020
- Croydon Community Strategy 2016-2021
- Croydon’s Corporate Plan 2018-22
- Ambitious for Croydon – Corporate Plan 2018-2022
- Croydon Unitary Authority Health Profile 2017
- Croydon Observatory Website 2018

4.0 Baseline Environmental Conditions

4.1 Air Quality

Croydon is meeting the UK Air Quality Strategy (AQS) objectives on all measures apart from for nitrogen dioxide (NO₂). Away from busy roads, annual average levels of NO₂ are well below air quality objective levels but at roadside monitoring stations this objective is yet to be met. Although Croydon is meeting the current objectives for particulate matter (PM₁₀ and PM_{2.5}) because this pollutant is harmful to human health at any level, this is a pollutant of concern for the borough.

There are four continuous AQ monitoring stations in London Road, Norbury, Norbury Manor school, Norbury, Wellesley road / Park lane and at Fiveways junction, Purley Way⁷. Like many other London Boroughs Croydon has been declared an Air Quality Management Area (AQMA). This is for the levels of NO₂. There are five focus areas in the borough:

- Purley Way (south of Fiveways) – due to construction work onsite there is no data for 2011 (from 2012 the site has been renamed Croydon 7)
- Beulah Road, Thornton Heath
- Junction of George Street and Wellesley Road, central Croydon
- London Road, Norbury

The main sources of NO₂ are road traffic at 60%, commercial gas heating at 26% and non-road mobile machinery at 6.5%. The main sources of particulate matter are road transport at 55.8%, resuspension at 27.3% and non-road mobile machinery at 5.9%.

The TfL MTS3 LIP Outcomes Borough data pack indicates that in combination, changes in the vehicle fleet (e.g. more electric vehicles and the phasing out of diesel engines) and the policies of the MTS should result in significant reductions in air pollutant emissions from transport, as indicated in **Table 4.1** below.

Table 4.1: Air pollutant emissions from road transport in Croydon (tonnes) by year

Pollutant	2013	2021	2041
Oxides of Nitrogen (NO _x)	890	330	40
Particulates (PM ₁₀)	88	75	41
Particulates (PM _{2.5})	49	36	20

Although detailed modelling would be required to confirm this, it is likely that these reductions would allow the UK air quality objectives to be met across the borough. Also, without this modelling, it is not possible to disaggregate how much of these reductions are attributable to technological changes, and which due to MTS policies.

⁷ London Borough of Croydon (2017) Air Quality Action Plan 2017-2022

4.2 Attractive neighbourhoods

Croydon Council has identified 16 distinct neighbourhoods⁸ in the borough based on both physical characteristics and social identity. These are identified in **Figure 4.1**, and can be characterised as follows:

- **Addington:** the character is defined by extensive areas of Green Belt, historic Conservation Area (Addington Village). The 20th century housing estates in New Addington and Fieldway are predominantly made of Local Authority Built Housing with Public Realm and compact house on relatively small plots respectively. Predominantly, the smaller scale buildings are interlaced with Mid-rise blocks of flats and residential tower buildings in both estates. Additional character types include suburban shopping, institutions with associated grounds and industrial estates.
- **Addiscombe:** a suburban residential settlement, framed on the eastern side. The non-residential areas consist of shopping areas and industrial estates. The residential character consists of a varied yet balanced mix of terraced houses and cottages, midrise blocks of flats and compact houses on relatively small plots, detached houses on relatively large plots and local authority housing with public realm.
- **Broad Green & Selhurst:** a heavily urbanised area consisting of a variety of local character types. The south-western edge is dominated by large retail estates, business and leisure parks along Purley Way and the greenery of Archbishop Lanfranc's playing field and Croydon Cemetery. London Road is characterised by high density characterises the centre. The eastern edge is predominantly Industrial Estates of the Selhurst area, with smaller scale historical industrial estates interlaced within the urban fabric.
- **Coulsdon:** Green Belt surrounds this small suburban settlement. The district centre contains Urban Shopping Area, Retail Estates/Business/Leisure Parks and Industrial Estates. Predominantly, the residential characters are detached houses on relatively large plots.
- **Croydon Opportunity Area:** Is a principle location for office, retail, cultural and hotels. The centre is dominated by the intersecting linear infrastructure, to the west and east are the Shopping Centres and Precincts, Tower Buildings and Large Buildings in an Urban Setting. To the south there are the Urban Shopping Character Areas. Residential areas are located around the edge with a mix of Large houses, relatively small plots, terraced houses and cottages and mixed flats.
- **Crystal Palace & Upper Norwood:** historic Victorian settlements, picturesquely located on green hills. Primarily a residential settlement, with Large houses on relatively small plots, planned estates of semi-detached houses, Mid-rise blocks of flats and compact houses on relatively small plots.
- **Kenley & Old Coulsdon:** Suburban area with green wooded hillsides and green open spaces. The area predominantly contains residential character types such as: detached houses on relatively large plots and planned estates of semi-detached houses.

⁸ London Borough of Croydon (2015) – **Urban Character Study**

Figure 4.1: Character Areas in London Borough of Croydon



- **Norbury:** A suburban town, organised along the dominant corridor of the London Road. The residential character is predominantly terraced houses and cottages, large houses on relatively small plots and local authority housing with public realm.
- **Purley:** a suburban market town with areas of urban shopping areas, industrial estates, retail estates/business/leisure park and higher density residential areas such as terraced houses and cottages, mixed type flats and compact houses and planned estates of semi-detached houses.

- **Sanderstead:** a suburban area located on a hilltop with residential areas surrounded by large scale green open spaces. In terms of residential character, the predominant type is detached housing on relatively large plots on the hillsides leading to the local centre, planned estates of semi-detached houses on the top of the Sanderstead Hill, and some local authority planned estates with public realm toward Hamsey Green.
- **Selsdon:** suburban residential area with a well-defined district centre, surrounded by large scale green open spaces. The residential character is planned estates of semi-detached houses, some local authority planned estates with public realm and mixed compact houses and flats on relatively large plots.
- **Shirley:** a suburban residential settlement surrounded by natural areas of Green Belt. Residential character consists of planned estates of semi-detached houses with garages and mixed type flats and compact houses set in large green spaces. In the south it is dominated by scattered houses on large plots surrounded by expansive areas of greenery.
- **South Croydon:** It has a fragmented character due to the A23 and railway infrastructure. There is Green Belt in the East, industrial estates along the railway infrastructure, the predominant residential character is terraced houses and cottages, mixed type of flats and compact houses to the west and north and detached houses on relatively large plots and large houses on relatively small plots with a number of listed buildings to the east.
- **South Norwood & Woodside:** a Victorian urban centre, designated as a Conservation Area. Predominantly a residential area with terraced houses and cottages, mixed type flats and compact houses compact houses, larger industrial estates and one retail estate/business/leisure park at the eastern edge.
- **Thornton Heath:** a heavily built up historic settlement with the district centre located around the railway station and local centre at Thornton Heath Ponds. Terraced houses and cottages dominate the residential character, with Edwardian and Victorian parks interlaced within the urban fabric.
- **Waddon:** a fragmented character with retail estates/business/leisure parks and industrial estates, local authority housing with public realm.

4.3 Climate change mitigation and adaptation

In 2010, Croydon undertook a report in order to investigate the state of the environment⁹. This identified the carbon footprint of Croydon as 11.76 tonnes CO₂ per capita (2006). This is higher than the London average of 11.38 tonnes CO₂ per capita. Croydon has set a long term target for the borough of a 34% reduction in CO₂ emissions by 2025.

The TfL LIP3 MTS Borough data pack indicates that as a result of a combination of changes to the vehicle fleet and MTS policies, CO₂ emissions from road transport in Croydon will reduce from 250.2 kta in 2013 to 211.3 kta in 2021 and to 56.7 kta in 2041. However, detailed modelling would be required to determine what proportion of this reduction is due to technology and what to the MTS policies.

⁹ Croydon Borough Council (2010) – The State of the Environment Report

4.4 Energy use and supply

In 2015 (the latest figures available), Government statistics¹⁰ indicated 412,000 tonnes of oil equivalent (ktoe) energy was consumed in Croydon. This is below average for boroughs across inner London. Of this, gas consumption accounted for just over 51%, while 25% was electricity consumption and just over 22% was of petroleum products. 22% of energy consumed was by industry, and 54% was consumed in people's homes. 21% of energy used was for transport.

4.5 Fairness and inclusivity

Croydon is exceptionally diverse and fast-changing. The population was just under 385,000 when reported in 2017 (London Data Store). The population within London was projected to grow by 14.7% over the period from 2011-2021 from 8,172,665 to 9,370,820; locally, Croydon's population from 2011-2021 is expected to grow by 9.6% from around 363,400 to 398,200¹¹. Croydon is ranked 12th out of the 33 boroughs in respect of ethnic diversity. Between 2001 and 2011 the 'white' population is the only classification to have reduced; a reduction of 31,750 residents. The population classified as 'mixed' has increased by 94.3% and the greatest increase is in residents classified as 'black', this BME group shows an increase of 29,300 residents over 10 years.

The breakdown of Croydon's population by ethnicity is indicated in **Table 4.2** below.

Table 4.2: Ethnic makeup of London Borough of Croydon 2018

Ethnicity	Number	%
White - British	158,875	40
White - Irish	8,913	2.2
Other White	72,247	18.2
White and Black Caribbean	3,533	0.9
White and Black African	3,875	1
White and Asian	7,129	1.8
Other Mixed	6,682	1.7
Indian	30,234	7.6
Pakistani	6,384	1.6
Bangladeshi	2,510	0.6
Chinese	10,522	2.7
Other Asian	30,451	7.7
Black African	23,227	5.8
Black Caribbean	4,937	1.2
Other Black	4,491	1.1
Arab	6,955	1.8
Other ethnic groups	16,084	4.1
<i>Total</i>	<i>397,049</i>	<i>100</i>

¹⁰ Department for Business, Energy and Industrial Strategy (2017) - **Sub-national total final energy consumption in the United Kingdom (2005 - 2015)** – 28th September 2017.

¹¹ Croydon Borough Profile 2012

Source: London Datastore

Croydon became more deprived between 2004 and 2010 and all electoral wards became more deprived relative to England. The north of the borough is generally more deprived than the south, sharing more of the characteristics of inner London than the south of the borough. The proportion of children in poverty in Croydon is 27%. However, there is significant variation between wards, in Fieldway, nearly half of children aged under 16 live in poverty, whereas in certain wards in the south of the borough, 1 in 10 children or fewer live in poverty. Croydon is the 107th most deprived borough in England and the 19th most deprived in London.

In terms of changes in age profile from 2001-2011 the 0-4yr old population grew national, regionally and locally; Croydon had the largest increase with 0.9%. The 5-19yr old population reduced over the last ten years; England experienced the highest reduction. The 20-64 year old population has increased locally, regionally and nationally; London's proportion of 20-64 year olds has increased by more than 1% against Croydon and England. The over 65 year old population has reduced in Croydon and London, but grown nationally.

There are marginally more women and girls (51.4%) than men and boys (48.6%) living in the borough, but no significant differences from the proportions at London and national levels.

4.6 Flood risk

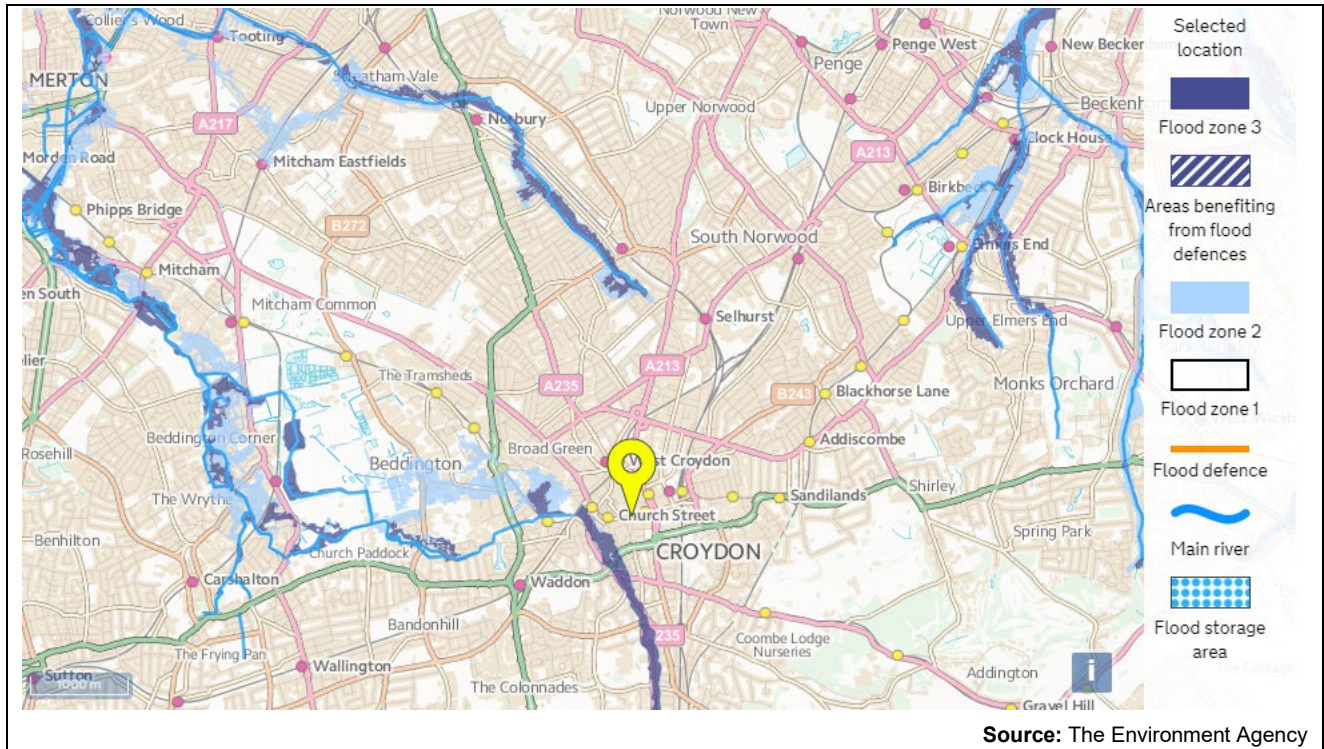
Croydon has undertaken a strategic flood risk assessment with the boroughs of Merton, Sutton and Wandsworth. 97.8% of London Borough of Croydon is defined as Flood Zone 1 Low Probability of flooding from rivers. Approximately 1.7% is defined as Flood Zone 2 Medium Probability, and then under 0.5% is Flood Zone 3a high probability and Flood Zone 3b Functional Floodplain.

Flood zones for planning purposes are defined by the Environment Agency, based on the likelihood of an area flooding. The three zones are:

- **Flood Zone 1** has less than 0.1% chance of flooding in any year (or 1:1000-year chance). There are very few restrictions on development these areas, exception where proposed development over 1ha in size, or is in a Critical Drainage Areas (i.e. deemed to be at high risk of flooding from rainfall).
- **Flood Zone 2** has between 0.1% – 1% chance of flooding from rivers in any year (between 1:1000 and 1:100 chance).
- **Flood zone 3** has 1% or greater probability of flooding from rivers.

The flood risk zones in the London Borough of Croydon are illustrated in **Figure 3.2** following, approximately 1.7% is defined as Flood Zone 2 Medium Probability, and then under 0.5% is Flood Zone 3a high probability and Flood Zone 3b Functional Floodplain. Flood Zone 3a is associated with River Wandle extending across the western part of Wandle Park. Flood Zone 2 associated with the River Wandle is found to the north and west across the A23 Purley Way and up the borough boundary. The section through Wandle Park is designated Flood Zone 3b Functional Floodplain. Norbury Brook has areas of Flood Zone 3b around Norbury Park. There is a small portion of the Chaffinch Brook which is Zone 2 and 3 associated with parkland areas in the north east of the borough. More information on water resources in the borough is provided in **Section 4.14** below.

Figure 4.2: Flood Risk Areas in the London Borough of Croydon



Surface flood risk: Croydon is highly susceptible to surface water flooding and there have been two significant floods, one in 2007 and 2014. Intense periods of rainfall caused flash floods and the existing drainage system lacked the capacity to accommodate this in various locations across the borough. For example, Purley Town centre experienced some of the worst flooding with significant flooding to property and the transport network. The Brighton Road through Purley and to Central Croydon and the A22 Godstone Road are areas that are particularly susceptible to flooding¹².

Groundwater: Groundwater flooding is reported in a number of areas in the borough and Council has 37 records, with some regular hotspots in the north of the Borough. The most widespread and high profile floods influenced by high groundwater have been associated with the Caterham Bourne in the south of the Borough, which caused significant disruption in the winter of 2000-2001 and more recently in early 2014, threatening significant numbers of homes, essential infrastructure and transport networks. The Susceptibility to Groundwater Flooding indicates that there is potential for groundwater flooding to occur at the surface along the route of the watercourses where the permeable river terrace deposits are present and are providing potential pathways for water during periods of elevated groundwater levels in the chalk aquifer

4.7 Geology and soils

The predominant area of the borough is un-surveyed soil, there are however, the surveyed parcels at the South of the Borough which include a variety of soil types and underlying geology, such as chalk, loam, sandstone, siltstone and clay. Natural England mapping shows that the majority of the

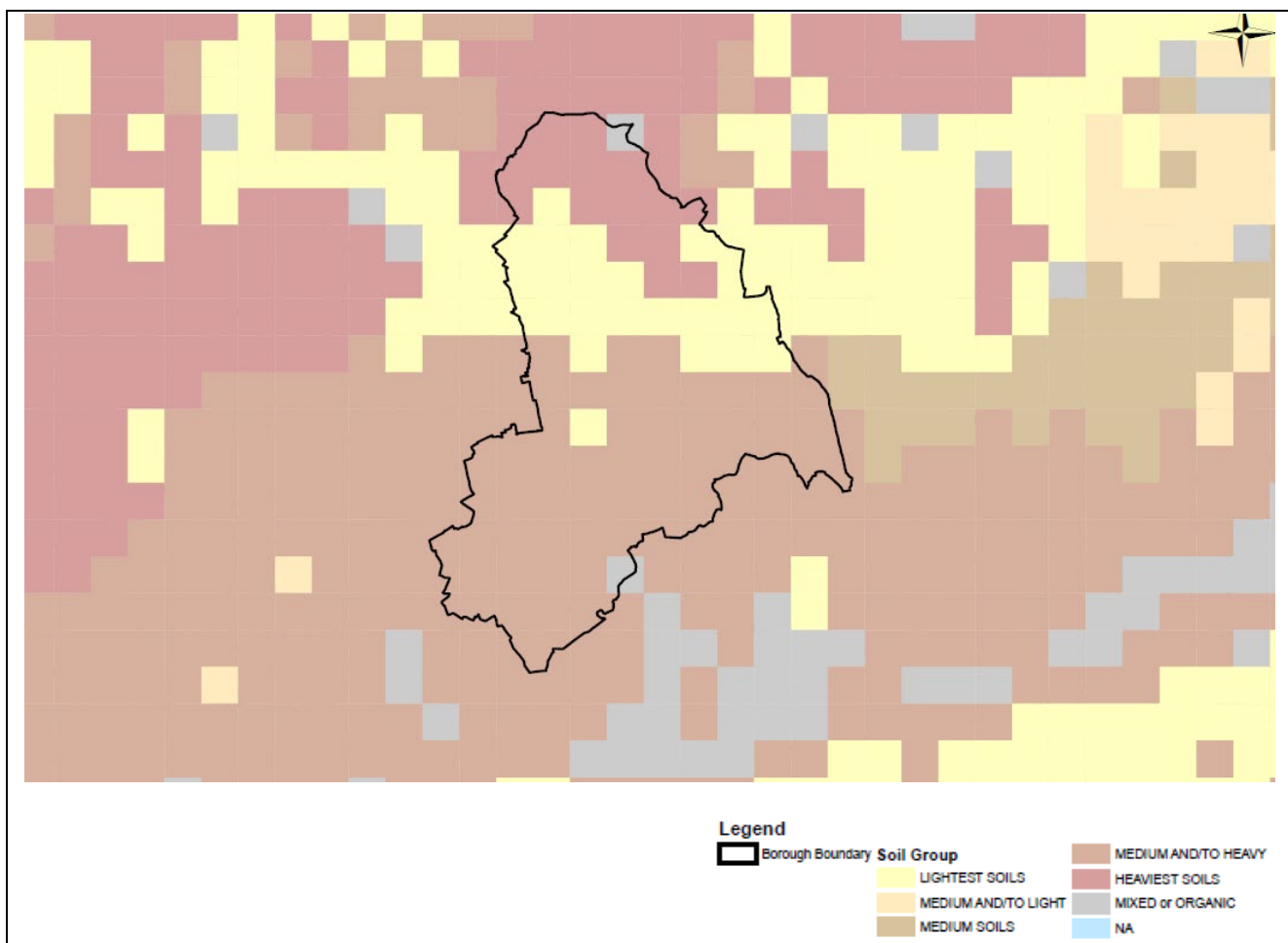
¹² London Borough of Croydon (2015) Strategic Flood Risk Assessment Report

Borough is very poor quality agricultural land which correlates to the urban nature of the land. There are pockets of moderate/good quality (grade 3) agricultural land in the southern wards¹³.

Approximately 4% of the total Borough area is classed as previously developed land and available for development.

The geology and soils of the Borough are illustrated in **Figure 4.3** below.

Figure 4.3: Geology and Soils in the London Borough of Croydon



4.8 Historic Environment

The Borough historic assets include seven grade I listed buildings, 136 grade II listed buildings and seven Grade II*. The Core Strategy Sustainability Appraisal Scoping report listed the following seven scheduled ancient monuments within the Borough include:

- Elmers End Moated site, South Norwood;
- St John the Baptist's Church Gateway, Howley Road, Croydon;
- Croham Hurst Round Barrow;

¹³London Borough of Croydon (2008) Core Strategy Sustainability Appraisal Scoping Report

- Newe (or Wide) Ditch, Riddlesdown;
- Group of Seven World War II Fighter Pens at Former Airfield of RAF Kenley;
- Round Barrows and ancient settlement, Farthing Down, Coulsdon; and
- Surrey Iron Railway embankment.

There are 20 designated Conservations Areas and two registered Parks and Gardens (Addington Palace, Norwood Grove).

Croydon has 11 Listed Buildings, three Scheduled Monuments (including a group of four World War II fighter pens at the former airfield of RAF Kenley, a further group of seven World War II fighter pens at the former airfield of RAF Kenley and Surrey Iron Railway embankment, approximately 130m south west of Lion Green Road, Coulsdon) and one Conservation Area (South Norwood Conservation Area) on Historic England's Heritage at Risk Register.

The Old Town Masterplan was produced and adopted in 2014 with the aim to preserve and enhance the rich historic character of Croydon town centre, where the first settlements in Croydon were located in Saxon times. The area includes several important heritage assets, including Surrey Street Market, and three conservation areas lie within it (Central Croydon, Church Street, Croydon Minster).

Conservation Area Appraisals and Management Plans (CAAMPs) provide detailed information on the special character of conservation areas and provide guidance for development and maintenance of properties. The Borough is in the process of producing and updating its CAAMPs to improve the protection of all of Croydon's conservation areas. Since 2012, 15 CAAMPs have been adopted¹⁴.

4.9 Materials and waste

Croydon's household waste in 2008 was less than the national average at 407 kilograms per annum of waste. At that stage 20.115% of all household waste was being recycled and composted. The percentage of household waste recycled had risen over the preceding 4 years, but it was still below the London average.

There are three reuse & recycling centres, which accept an increasing range of materials and items for reuse or recycling. These are Recycling Centre Factory Lane in West Croydon, Fischers Farm Waste and Recycling Centre in New Addington in the south east of the borough and Purley Oaks Recycling Centre in Purley. Croydon has 11 waste management facilities throughout the borough, including:

- Northwood Road;
- Thornton Road (2 sites);
- Stubbs Mead, Factory Lane;
- Conduit Lane;
- Selsdon (Employment Area);
- Purley Oaks (2 sites);

¹⁴ A full list of the adopted CAAMPs is available at <https://www.croydon.gov.uk/planningandregeneration/framework/conservation/conservation-areas/conservation-guidance>

- Fishers Farm;
- Pear Tree Farm; and
- Marlpit Lane and Ulleswater Crescent.

4.10 Mental and physical wellbeing

Health and well-being in Croydon typically are similar to the London average. In 2014 the life expectancy for men in the borough was 80.3 (the same as the London average) and for women it was 83.6 (just under the London average of 84.2). Life expectancy rates in Croydon are increasing and are expected to improve further. Health inequalities are most evident in the more deprived areas in the east of the Borough where people tend to experience the poorest health. Mental illness, levels of physical activity and obesity a greater concern in more deprived parts of the borough. Men who live in the most deprived areas in the borough die on average 9.7 years younger than those in more affluent areas and for women the difference is 6.1 years. Also, health inequalities are more prevalent among groups with protected characteristics.

Child health is a significant issue across London and this is reflected by the fact that in Year 6 24.7% of children are classified as obese, which is worse than the average for England. Under 18 alcohol-specific hospital stays is better than the English average with 25 per 100,000 population. For adults the rate of alcohol-related harm hospital stays is 523 per 100,000 population which is better than the English average.

The effects of environmental issues on health are more concentrated in certain parts of the borough. For example, town centres and other areas with traffic congestion experience poorer air quality with consequent impacts for people vulnerable to respiratory and heart conditions. Health inequality across the Borough is clearly linked with socio-economic background, ethnicity and employment activity. The most 'healthy' wards are in the south of the borough.

4.11 Natural Capital and Natural Environment

There are three European Sites are within a 10 km radius of Croydon, all of which are Special Areas of Conservation (SAC):

- **Mole Gap to Reigate Escarpment:** Woodland, chalk grassland, chalk scrub and heathland form an interrelated mosaic at this site on the North Downs. The site has qualifying habitats such as semi-natural dry grasslands and scrubland facies and European dry heaths and qualifying species such as Bechstein's bat and Great crested newt.
- **Richmond Park:** One of the largest open spaces in Greater London and the largest of the Royal Parks. It qualifies as a SAC because of the presence of the stag beetle, the UK's largest terrestrial beetle.
- **Wimbledon Common:** one of the largest areas of uncultivated land in the conurbation of London and sits in the Thames Valley Natural Character Area. It also qualifies as an SAC due to presence of the stag beetle and for the qualifying habitats of European dry heath and Northern Atlantic wet heaths with Erica tetralix.

Due to the distance from Croydon and the nature of the species and habitats that these sites are protected for, the LIP is unlikely to have significant impacts on any of these sites.

There are three areas designated as Sites of Special Interest (SSSI), covering a combined area of 189 hectares:

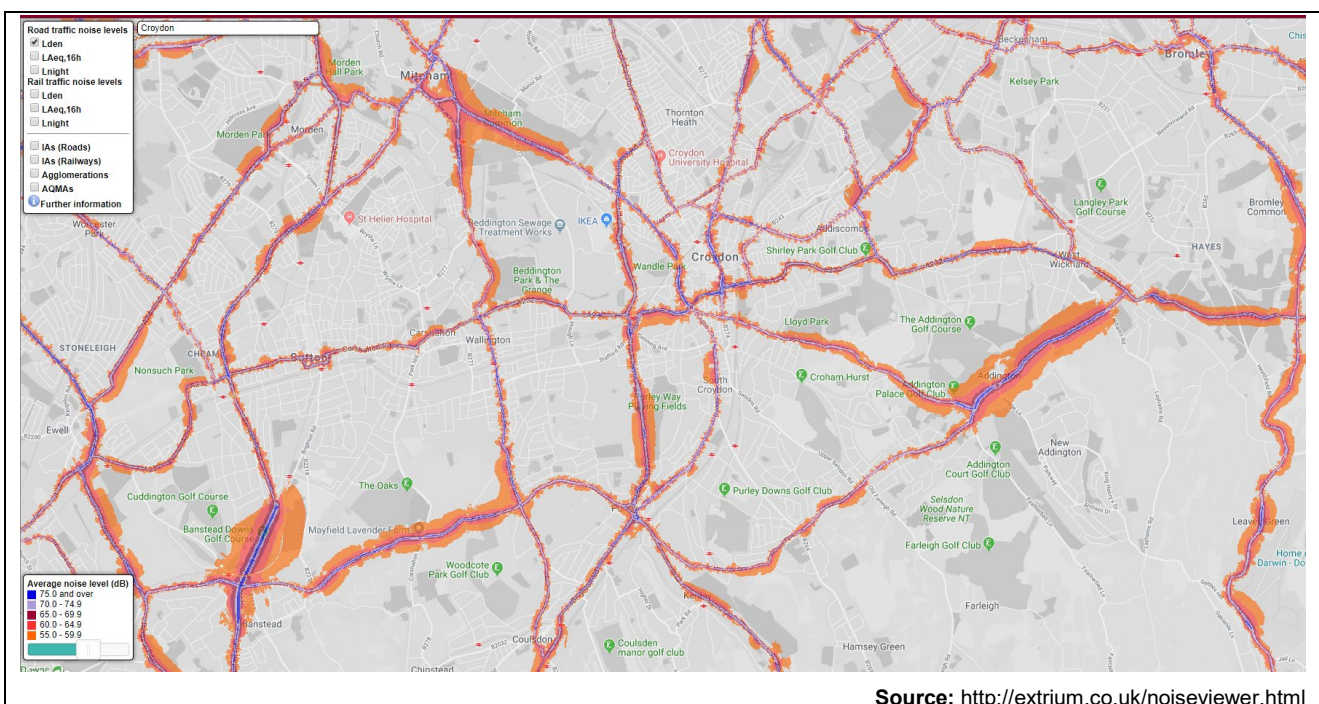
- **Croham Hurst SSSI**– area of ancient woodland with a range of stand types that reflect the variations in the underlying geology.
- **Riddlesdown SSSI** - largest single expanse of long-established calcareous scrub in Greater London and also valued for its herb-rich chalk grassland.
- **Farthing Downs and Happy Valley SSSI** – support the most extensive area of semi-natural downland habitats remaining in Greater London. The site is of particular interest for its species-rich chalk and neutral grasslands, and for an area of ancient woodland known as Devilsden Wood.

There are 81 sites of biodiversity importance in Croydon (non-statutory designations), and there are 330 green spaces and Croydon has six Local Nature Reserves (LNRs) – Bramley Bank, Foxley Wood, Hutchinson’s Bank, South Norwood Country Park, Selsdon Wood and Streatham Common. The waterways also offer a valuable habitat, which it is recognised should be preserved and enhanced. The London Wildlife Trust has recorded 2303 sightings of species protected under the London Biodiversity Action Plan. There are 1709 tree preservation orders throughout the Borough.

4.12 Noise and vibration

Little information is available on noise and vibration generally across the Borough. **Figure 4.4.** below shows estimated levels of road traffic noise, which is the primary noise source in most parts of the Borough. This is based on the strategic noise mapping exercise undertaken by the Government in 2012, and shows results are shown for LAeq,16h, which is the annual average noise level (in dB) for the 16-hour period between 0700-2300

Figure 4.4: LAeq 16-hour road traffic noise levels in London Borough of Croydon 2012



The actual level of noise may have increased due to increases in traffic since 2012, but this is unlikely to be to a significant extent. The pattern and distribution of noise levels is likely to be relatively unchanged over this time. From **Figure 4.4** it may be seen that the main areas affected by traffic noise in Croydon unsurprisingly are along the main traffic routes through the Borough. In particular, A236 and the A23/Purley Way, the A212 and A232 particularly around central Croydon and A236 and A23/Purley Way in South Croydon areas all experience higher levels of traffic noise.

4.13 Safety and security

Crime has been steadily declining across Croydon over time, but some neighbourhoods and groups remain more likely to fall victim to crime than others. Croydon is the 125th most deprived local authority in England (out of 410). Areas of high multiple deprivation are primarily located in the north and south eastern wards. This is reflected in the crime and living environment deprivations statistics. Rates of crime in Croydon are slightly higher than those in London. Despite the total number of crime rates decreasing, areas of domestic crime, such as sexual offences and burglary, are increasing. The areas of highest crime are in Fieldway and New Addington which correlates with the indices of deprivation. The Local Area Agreement also aims to improve early interventions for Anti-Social Behaviour by 10%.

4.14 Water resources and quality

The principle watercourses in the borough are the tributaries to the River Wandle in the north, which are a mix of natural and canalised watercourses. The River Wandle has two sources at the springs at Carshalton (London Borough of Sutton) and Waddon, they rise at the boundary of the Chalk and overlying Clays and Gravels. There is also the South Norwood Lake which is man-made but a significant surface water feature. The Environment Agency (EA) reports that within the Borough, chemical quality of the Beddington Ditch, Beddington Arm and Carshalton Arm is 'very good'. However, the biological quality is poor, most likely being due to the high nitrate content in the water. The EA report that these results have not shown significant changes over recent years. EA groundwater vulnerability maps show source protection zones protecting drinking water extraction sites in the south of the Borough. Land use activities within the source protection zones are closely monitored by the Environment Agency¹⁵.

¹⁵ London Borough of Croydon (2008) Sustainability Appraisal Scoping Report

5.0 SEA Objectives and Framework

5.1 Objectives

Temple and Steer have confirmed with Croydon Council that it is happy to use the TfL/GLA framework that was developed to satisfy SEA requirements for plans and strategies produced by the Mayor of London as the basis for the current assessment.

The SEA topics indicated as in scope in **Section 4.0** above and the objectives against which the proposals set out in the LIP will be evaluated are set out in **Table 5.1** below.

Table 5.1: TfL/GLA environmental objectives for SEA

Environmental topic	Objective
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population; and
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value in relation to their significance and their settings.
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the

Environmental topic	Objective
	services and benefits it provides, delivering a net positive outcome for biodiversity
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure
Safety and security	To contribute to safety and security and generate the perceptions of safety;

We have reviewed the baseline information collated, together with the outcomes of the IIA undertaken for MTS3 and other information on the specific proposals likely to come forward through each LIP to identify the existing sustainability issues that are relevant.

5.2 Alternatives

To meet the requirements of the SEA Regulations, it is also necessary to identify reasonable alternatives to the proposals presented in the LIP, and meaningful comparisons made of the environmental implications of each. Experience tells us that, in the context of LIPs delivering the policies and proposals already identified in the MTS, it can be assumed that the only real reasonable alternative to the LIP proposals is the “do-nothing” scenario. On this basis, we do not propose to develop other alternatives simply for comparison in the SEA.

The proposals set out in the LIP have been identified through a structured appraisal and evaluation of candidate projects. Project ideas were generated through discussion with internal stakeholders, considering the council’s Borough Plan objectives and other related priorities. In parallel, the Council reviewed the transport evidence base identify key issues to be addressed and trends such as clusters of accidents or locations where high traffic speeds were consistently recorded. The public and key stakeholders were also consulted on these matters.

5.3 Habitats Regulations Assessment

As well as SEA, the LIP may also require a Habitats Regulations Assessment (HRA), as set out in the Conservation of Habitats and Species Regulations 2010 (as amended) if it is likely to have significant effects on European habitats or species.

Taking note of the reasons for designation of the sites described in **Section 4.11** above, the proximity of these areas in relation to the proposals set out in the LIP, and the characteristics of the proposals, it is concluded that no significant environmental effects on the protected areas that may affect their conservation objectives^{16,17, 18} will be likely to arise from implementation of the LIP. On this basis, no further assessment has been undertaken.

¹⁶ Natural England (2014) - **European Site Conservation Objectives for Mole Gap to Reigate Escarpment Special Area of Conservation** - Site Code: UK0012804.

¹⁷ Natural England (2014) - **European Site Conservation Objectives for Richmond Park Special Area of Conservation** - Site Code: UK0030246.

¹⁸ Natural England (2014) - **European Site Conservation Objectives for Wimbledon Common Special Area of Conservation** - Site Code: UK0030301.

5.4 SEA Framework Matrices

5.4.1 Approach

To evaluate the effects of the LIP, Temple and Steer have used the adapted GLA SEA framework matrix in this section. The 14 Borough Transport Objectives of the LIP are assessed in turn in the matrix tables in this section grouped according to the relevant Mayor's Transport Strategy outcomes they support. Table 5.2 provides a list of the matrices.

Table 5.2 Summary of SEA Matrices and Croydon LIP objectives

SEA Matrix	Category • LIP Objective
1	<p>Changing the transport mix - Overarching Borough objectives and goals</p> <p>1. Croydon will reduce reliance on the car for local in-borough car journeys by creating streets and a transport network that prioritises walking, cycling and public transport.</p> <p>2. We will reduce the number of local car trips and to ensure that by 2021/22 at least 50% of all journeys made residents are by walking, cycling and public transport. By 2041, 63% of all journeys made by residents are by walking, cycling and public transport.</p>
2	<p>Outcome 1: London's streets will be healthy and more Londoners will travel actively</p> <p>3. Croydon will create healthy streets and neighbourhoods that encourage walking and cycling, and where traffic volumes and speeds are low.</p> <p>4. Croydon will improve accessibility for pedestrians and cyclists through increased priority at key junctions and reduce severance caused by major roads, railway lines and parks.</p> <p>5. Croydon will implement and deliver the network of cycle routes and proposals outlined in the Croydon Cycle Strategy.</p>
3	<p>Outcome 2: London's streets will be safe and secure</p> <p>6. Croydon will support and deliver the principles of the Vision Zero Action Plan and work towards ensuring we have the safest roads in London with no killed or serious injuries on our roads by 2041</p>
4	<p>Outcome 3: London's streets will be used more efficiently and have less traffic on them</p> <p>7. Croydon will reduce the volume of traffic on our roads and associated congestion through better management of our roads and kerbside space, and by offering pleasant, practical and safe alternatives to private cars and van.</p>
5	<p>Outcome 4: London's streets will be clean and green</p> <p>8. Croydon will tackle road based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure</p>
6	<p>Outcome 5: The public transport network will meet the needs of a growing London</p> <p>9. Work with the Mayor, TfL, Network Rail, bus operators and TOCs to improve public transport links, reduce overcrowding on the public transport network and ensure Croydon is the best connected Metropolitan Town Centre in Outer London.</p>

7	<p>Outcome 6: Public transport will be safe, affordable and accessible to all</p> <p>10. Work with the Mayor, TfL, Network Rail, bus operators and TOCs to ensure the entire public transport network is accessible, safe and step free</p>
8	<p>Outcome 7: Journeys by public transport will be pleasant, fast and reliable</p> <p>11. Work with TfL to introduce additional bus priority measures on key road corridors to improve efficiency and reliability of bus services.</p> <p>12. Lobby the TOCs and the DfT to improve performance of train services and reduce gaps in service frequencies</p>
9	<p>Outcome 8: Active, efficient and sustainable travel will be the best option in new developments</p> <p>13. Croydon will ensure all new development incorporates the ten Healthy Streets principles into their design, and ensure they are integrated with the local walking and cycling networks as well as public transport.</p>
10	<p>Outcome 9: Transport investment will unlock the delivery of new homes and jobs'</p> <p>14 Work with key partners to increase public transport capacity in the borough to support the creation of new homes and jobs planned over the next two decades, including the extension of the tram to Crystal Palace and the upgrade of Brighton Mainline.</p>

The likely effects of implementing the LIP have been based on the professional judgements of our SEA team, evidenced by information from the LIP3 MTS Outcomes Borough data pack that was provided to the London Boroughs by TfL. This data pack was based on transport modelling that was completed by TfL to inform the third MTS. The results of this modelling are useful in informing the assessment, given that purpose of the LIP is to implement the MTS in a borough. It should be noted that the results of the modelling cannot be used directly, as it was only conducted at a strategic level, with the purpose of obtaining London-wide results. As such, borough-specific outputs are not available. Furthermore, this modelling takes into account the entire MTS, only some of which may be reflected in the LIP.

Notwithstanding the above, the results of the MTS modelling provide an indication of the likely direction and scale of change expected as a result of the MTS policies. As such, by considering what proportion of the scenario modelled for the MTS is directly related to LIP policies, we gain insights into their potential effects.

This is made easier as various packages were modelled for the MTS, as described in **Table 5.2** below. Package A is the reference case, largely reflecting business as usual. Various packages were then modelled on top of this, with each subsequent package being cumulative (so for example, Package C includes the measures in Packages A and B plus some additional measures).

Table 5.3: Description of packages modelled for the MTS

Package	Description
<p>Package A: Core reference case</p>	<p>The core reference case includes funded public transport and highway schemes and likely changes in London’s land use and economy. It assumes the latest available projections of population and employment from the GLA as well as Government assumptions on changes in the wider economy, and current funded schemes. A scheme list is provided in Appendix 1 and a summary of key schemes is provided below:</p> <ul style="list-style-type: none"> • Current view of funded National Rail2 schemes, HLOS programme, Thameslink programme, HS2, West Anglia and Great Western improvements. • The opening of the Elizabeth Line in 2019, the Northern Line Extension and Tube upgrades to the Victoria, Jubilee, Northern and Sub Surface Lines. • DLR, Trams, London Overground and bus service improvements. • TfL’s Road Modernisation Plan, cycling infrastructure schemes and the introduction by 2020 of the Central London Ultra Low Emission Zone (ULEZ). <p>Wider assumptions have been made about policies relating to aspects such as fares, fuel costs and car parking.</p>
<p>Package B: Optimising the network</p>	<p>One of the main challenges identified in the core reference case is continued traffic dominance with highway congestion affecting bus speeds. Package B aims to enhance the existing network through bus priority schemes the reallocation of road space in areas of high place value identified by the Street Types for London. It also includes frequency improvements to some rail services. A summary of key schemes is provided below:</p> <ul style="list-style-type: none"> • Bus priority schemes, enabling faster journey times in Central London; low emission bus zones; and high frequency links; • 30 trains per hour on the Elizabeth Line; • Some selected National Rail and London Overground improvements; • Tram frequency uplifts; and • 10 to 30 per cent reduction in highway capacity on the highway links with the highest value (‘place’) as identified in Street Types for London.
<p>Package C: Incremental expansion</p>	<p>Crowding on the Tube, Elizabeth Line, DLR, London Overground, Trams and National Rail is a key challenge in the core reference case because funded improvements do not go beyond the mid-2020s and demand for travel will increase. Building upon the improvement schemes included in package B, package C aims to reduce crowding, encourage further mode shift from the car and increase public transport demand. London can also maximise the benefits of National Rail in south London by creating a London Suburban Metro. These schemes represent improvements that require line or track upgrades and new rolling stock but not new rail lines. A summary of key schemes is provided below:</p> <ul style="list-style-type: none"> • Deep Tube upgrade & World Class Capacity programmes including upgrades to the Bakerloo, Central, Waterloo & City, Piccadilly, Jubilee and Northern Lines; • Creating a London Suburban Metro; • Further National Rail investment including upgrades to West Anglia mainline, Brighton mainline, Chiltern Line and new stations; • 30 trains per hour on the DLR; • London Overground frequency increases; and • Construction of the Silvertown Tunnel and associated bus improvements.

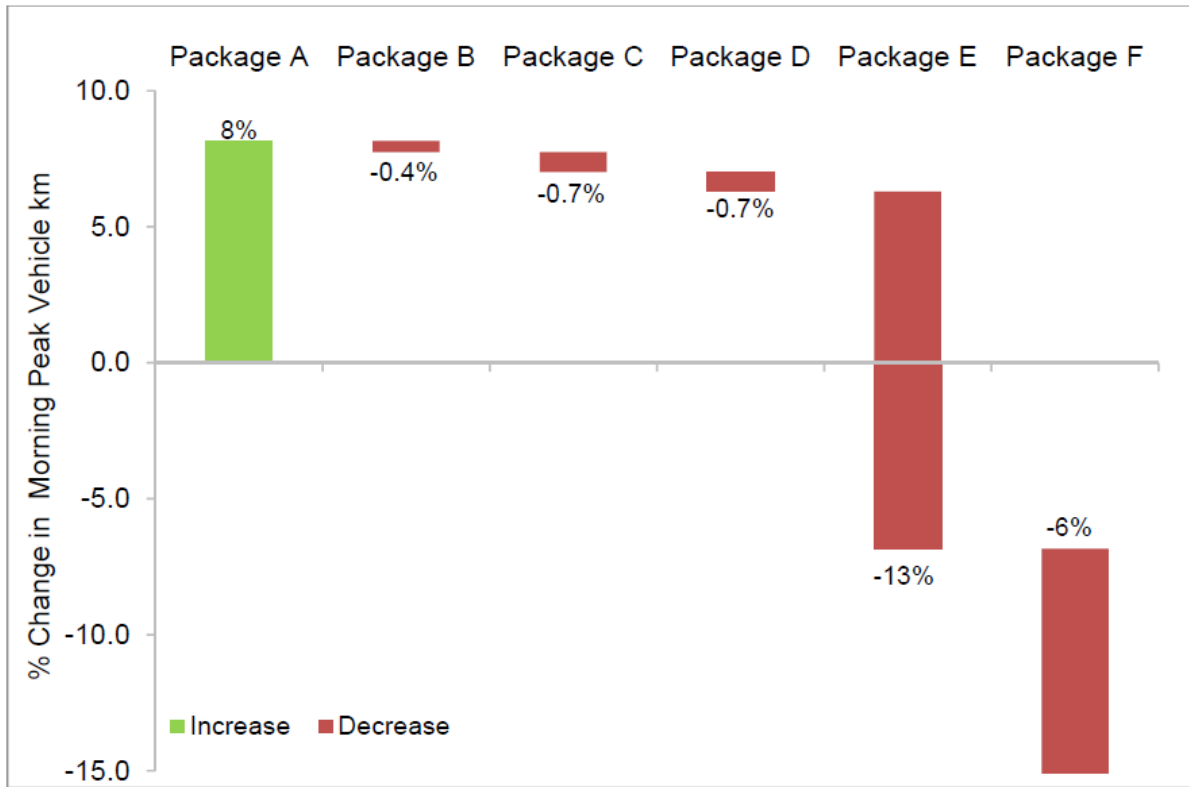
Package	Description
Package D: New connections	<p>New public transport connections are needed to unlock growth in jobs and homes, provide an improved public transport service and reduce crowding. These schemes also support further agglomeration benefits in London's economy. A summary of key schemes is provided below:</p> <ul style="list-style-type: none"> • Crossrail 2, linking Surrey and Hertfordshire with two new 37 kilometre tunnels from Wimbledon to Tottenham Hale and New Southgate; • Bakerloo Line Extension to Lewisham and beyond; • Elizabeth Line extension to Slade Green; • DLR extensions from Gallions Reach; • London Overground extensions and strategic interchange investment including to Barking Riverside and Abbey Wood, and to Hounslow; • Tram extension from South Wimbledon to Sutton; and • Further bus network development.
Package E: Traffic reduction	<p>Package E contains a range of measures to reduce traffic and achieve Healthy Streets for London. A summary of key schemes is provided below:</p> <ul style="list-style-type: none"> • Further road space reallocation to walking, cycling and bus priority in order to reduce traffic dominance and deliver Healthy Streets for London. • Further increases in parking charges, limits on free commuter parking or a work place parking levy; • Measures to accelerate the rate of car ownership reduction resulting in a quarter of a million fewer cars owned in London; and • Measures to limit the growth of freight traffic, so that HGV traffic does not rise, and van traffic grows only in line with population.
Package F: Longer term changes to the way road use is paid for	<p>Changes to the way road use is paid for in the longer term could help achieve an 80 per cent mode share for walking, cycling and public transport. A summary of the illustrative measures included is provided below:</p> <ul style="list-style-type: none"> • An indicative distance-based charge. The inner London distance-based charge assessed was twice the outer London charge per kilometre; and • Measures to encourage green technology uptake.

Source: Transport for London, Mayor's Transport Strategy: Supporting Evidence Outcomes Summary Report, July 2017

The definitions of the packages are shown in the table below. It can be seen that there are elements in most of the packages that reflect what is contained in the LIP. However, it is Package E that is most closely related to what is proposed in the LIP. As such, whilst recognising that this is a simplistic approach, examining the marginal impact that Package E has provides a rough indication of the potential direction and magnitude of the impact of the LIP.

Figure 5.1 shows that on a London-wide basis, Package E accounts for a large proportion of the overall reduction of vehicle-kilometres travelled in the morning peak hour. As such, it is likely that the policies in the Croydon LIP are likely to result in a significant decrease in vehicle-kilometres travelled.

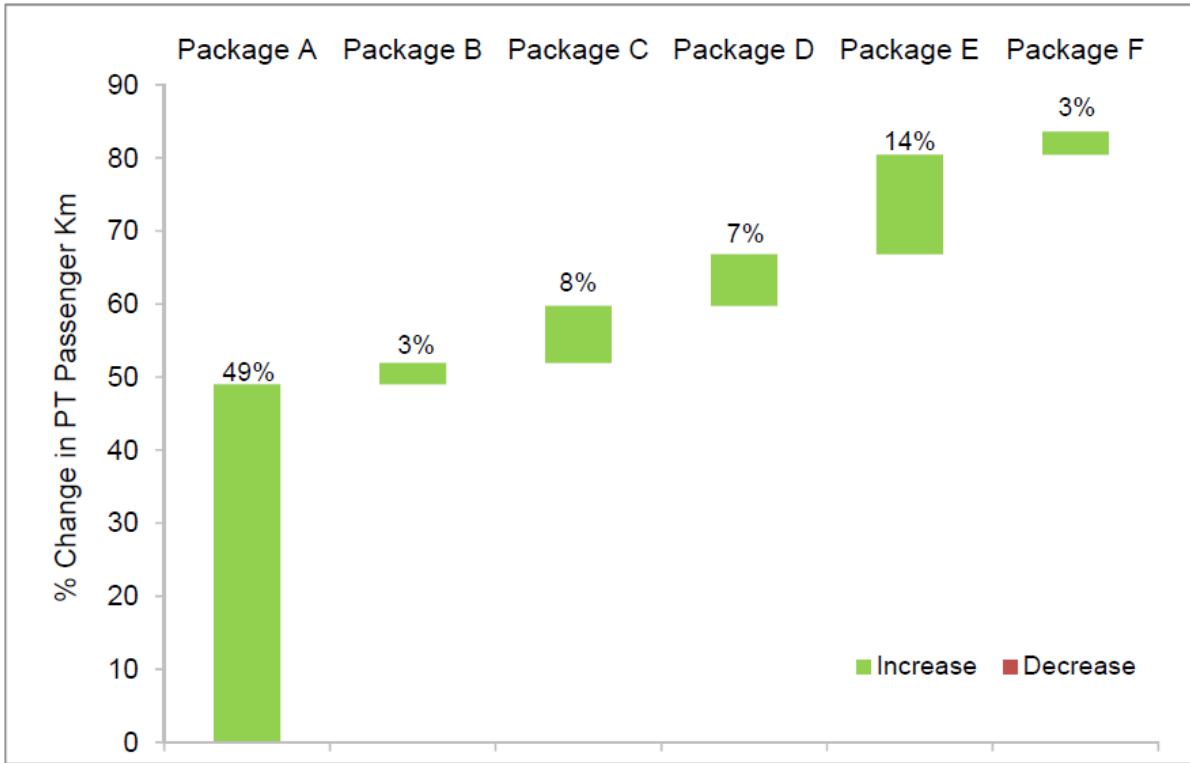
Figure 5.1: Change in London morning peak hour vehicle kilometres, 2015 to 2041 for packages A to F



Source: Transport for London (2017) -, Mayor's Transport Strategy: Supporting Evidence Outcomes Summary Report, July 2017

For public transport use, **Figure 5.2** below shows that the expected London-wide increase is primarily associated with Package A. However, Package E is expected to further increase public transport use, albeit by a smaller amount. This indicates that the policies in the Croydon LIP are likely to result in an increase in public transport usage.

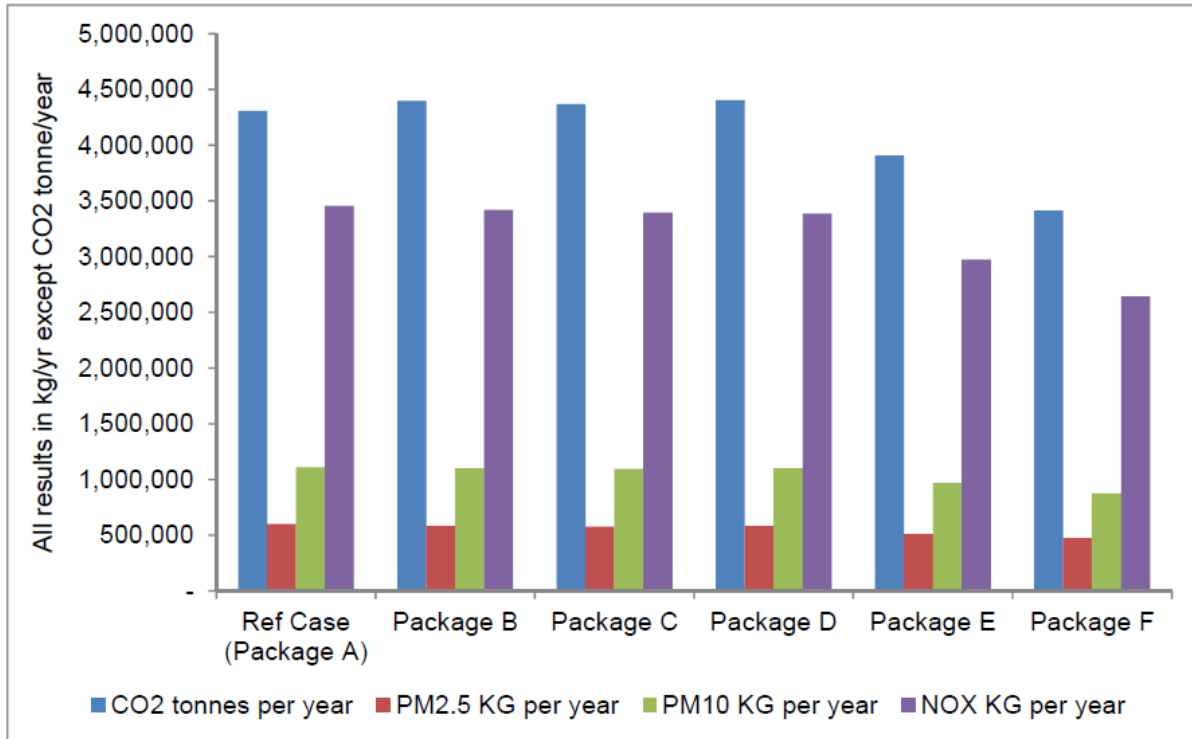
Figure 5.2: Change in 12-hour public transport passenger kilometres, 2015 to 2041 for packages A to F



Source: Transport for London (2017) - Mayor’s Transport Strategy: Supporting Evidence Outcomes Summary Report, July 2017

In terms of greenhouse gas and local air pollutant emissions from transport, **Figure 5.3** below shows that there is a noticeable decrease between Package D and Package E, which shows that the marginal impact of Package E is positive. However, this should be viewed in the context of a very large reduction between the existing situation and Package A, primarily due to factors such as technological changes. As such, relative to the existing situation, the marginal emission reductions due to Package E are very small. This means that the impacts of the policies in the Croydon. LIP are likely to be positive in this regard, however at a very small scale when compared to the existing situation.

Figure 5.3: CO₂, PM_{2.5}, PM₁₀ and NO_x emissions from road-based transport, 2041 for packages A to F



Source: Transport for London (2017) - Mayor's Transport Strategy: Supporting Evidence Outcomes Summary Report, July 2017

In the SEA framework matrix, effects have been evaluated using the scale set out in **Table 5.4**.

Table 5.4: Scale to be used for Evaluation of Environmental Effects in the SEA

Scale of effect		Definition
++	Major positive effect	Strategy/LIP contributes greatly towards achieving the SEA objective/Significant Effect
+	Minor positive effect	Strategy/LIP contributes to achieving the SEA objective
0	Neutral or no effect	Strategy/LIP does not impact upon the achievement of the SEA objective
-	Minor negative effect	Strategy/LIP conflicts with the SEA objective
--	Major negative effect	Strategy/LIP greatly hinders or prevents the achievement of the SEA objective/Significant Effect
?	Uncertain	Strategy/LIP can have positive or negative effects but the level of information available at a time of assessment does not allow a clear judgement to be made

5.4.2 Matrix 1: LIP Objectives: Changing the transport mix - Overarching Borough objectives and goals

Table 5.5: SEA Matrix 1: Changing the transport mix - Overarching Borough objectives and goals

LIP Objectives: 1. Croydon will reduce reliance on the car for local in-borough car journeys by creating streets and a transport network that prioritises walking, cycling and public transport. 2. We will reduce the number of local car trips and to ensure that by 2021/22 at least 50% of all journeys made residents are by walking, cycling and public transport. By 2041, 63% of all journeys made by residents are by walking, cycling and public transport.

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Implementation of measures aiming to reduce the volume of traffic, encourage healthier lifestyles and active travel will help to reduce growth in emissions.	+	None required
		Will it help to achieve national and international standards for air quality?	Measures will contribute to the reduction of emission of priority pollutants. However, it is unlikely that the reduction will be significant at the national level in addition to effects of changes in vehicle technology and other MTS policies.	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Proposed measures to encourage mode shift and reduce reliance on cars are likely to improve air quality conditions and benefit vulnerable communities.	+	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it result in air quality changes which negatively impact the health of the public?	No negative effects from these measures.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Although the objective will have positive impacts on air quality, it is difficult to draw direct conclusions relating to premature deaths.	0	None required
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures to encourage mode shift and reduce reliance on cars will contribute to a reduction of emission of priority pollutants and improvements on local air quality, including schools, outdoor play areas, care homes and hospitals. However it is unlikely that the reduction will be significant in addition to effects of changes in vehicle technology and other MTS policies.	+	None required
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors.	+	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
	sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it improve the use of the urban public realm by improving its attractiveness and access?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Proposed measures will not lead to physical changes to protect London from climate change.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Proposed measures will not lead to physical changes to protect London from climate change.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Proposed measures will not lead to physical changes to protect London from climate change.	0	None required
		Will it improve access to services during severe weather events?	Proposed measures will not affect access to services during severe weather.	0	None required
		Will it reduce exposure to heat during heatwaves?	Measures are unlikely to have any direct effect in this respect.	0	Not required
		Will it enable those vulnerable during severe weather events to recover?	Not applicable	0	Not required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures will contribute to the reduction of GHG through mode shift, although not to a significant extent.	0	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures are unlikely to have any direct effect in this respect.	+	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Not applicable	0	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures contribute to improvement in energy efficiency in transport but overall are unlikely to contribute to significant reductions in demand for energy.	+	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures are unlikely to have any direct effect in this respect.	0	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors.	+	None required
		Will it improve the wider historic environment and sense of place?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors.	+	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors	+	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will promote active travel and modal shift.	+	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to greenspaces for recreational and health benefits?	Measures will promote active travel and modal shift.	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors but not in a significant way	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors.	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures are unlikely to have any direct effect in this respect.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Traffic reduction measures along with a greater emphasis on walking, cycling, public transport and urban realm will positively impact these factors	+	None required
		Will reduce levels of noise generated?	Traffic reduction measures along with a greater emphasis on walking, cycling will help reduce the generated level of noise.	+	None required
		Will it reduce inequalities in exposure to ambient noise?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Changing the transport mix - Overarching Borough objectives and goals		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce night time noise in residential areas?	Traffic reduction measures along with a greater emphasis on walking, cycling may help reduce night time noise, but not to a significant extent..	+	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Measures are unlikely to have any direct effect in this respect.	0	None required
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures are unlikely to have any direct effect in this respect.	0	None required

5.4.3 Matrix 2: LIP Objectives - Outcome 1: London’s streets will be healthy and more Londoners will travel actively

Table 5.6: SEA Matrix 2 LIP Objectives for Outcome 1: London’s streets will be healthy and more Londoners will travel actively

LIP Objectives: 3. Croydon will create healthy streets and neighbourhoods that encourage walking and cycling, and where traffic volumes and speeds are low. 4. Croydon will improve accessibility for pedestrians and cyclists through increased priority at key junctions and reduce severance caused by major roads, railway lines and parks. 5. Croydon will implement and deliver the network of cycle routes and proposals outlined in the Croydon Cycle Strategy.

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Implementation of measures aiming to improve accessibility and encourage active travel will help reduce growth in emissions.	+	None required
		Will it help to achieve national and international standards for air quality?	Measures will contribute to the reduction of emission of priority pollutants. However, it is unlikely that the reduction will be significant at the national level in addition to effects of changes in vehicle technology and other MTS policies.	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Encouraging active travel, along with the creation of healthy streets, is likely to improve local air quality conditions and benefit vulnerable communities.	+	The scheme design should consider exposure reduction measures
		Will it result in air quality changes which negatively impact the health of the public?	No negative effects from these measures.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Although the objective will have positive impacts on air quality, it is difficult to draw direct conclusions relating to premature deaths.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures encouraging walking and cycling and the creation of healthy streets will contribute to a reduction of emission of priority pollutants and improvements on local air quality, including schools, outdoor play areas, care homes and hospitals. However it is unlikely that the reduction will be significant in addition to effects of changes in vehicle technology and other MTS policies.	+	None required
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance the existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Public realm improvements at key locations, creating new walking and cycling routes and improved accessibility for pedestrian and cyclists, along with the creation of healthy streets and neighbourhoods will positively impact key streetscapes and townscapes.	++	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Public realm improvements at key locations, creating new walking and cycling routes and improved accessibility for pedestrian and cyclists, along with the creation of healthy streets and neighbourhoods will positively impact key streetscapes and townscapes.	++	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Proposed measures will not lead to physical changes to protect London from climate change.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Proposed measures will not lead to physical changes to protect London from climate change.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Proposed measures will not lead to physical changes to protect London from climate change.	0	None required
		Will it improve access to services during severe weather events?	Proposed measures will not lead to physical changes to improve access to services during extreme weather events.	0	None required
		Will it reduce exposure to heat during heatwaves?	Proposed measures will not lead to physical changes to improve access to services during heatwaves.	0	None required
		Will it enable those vulnerable during severe weather events to recover?	Not applicable	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures will contribute to the reduction of GHG through mode shift and active travel, although not to a significant extent.	0	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures are unlikely to have any direct effect in this respect.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Not applicable	0	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures contribute to improvement in energy efficiency in transport but overall are unlikely to contribute to significant reductions in demand for energy.	+	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures are unlikely to have any direct effect in this respect.	0	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Implementation of measures aiming to improve accessibility and encourage active travel will positively impact these factors	+	None required
		Will it improve the wider historic environment and sense of place?	Implementation of measures aiming to improve accessibility and encourage active travel will positively impact these factors	+	None required
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Implementation of measures aiming to improve accessibility and encourage active travel will positively impact these factors	+	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Public realm improvements at key locations, including improved accessibility for pedestrian and cyclists, along with the creation of healthy streets and neighbourhoods that encourage walking and cycling will improve connectivity to key services by promotive active modes of transport.	++	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to greenspaces for recreational and health benefits?	Public realm improvements at key locations, including improved accessibility for pedestrian and cyclists, along with the creation of healthy streets and neighbourhoods that encourage walking and cycling will improve access to greenspaces.	++	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Improved access and reduction of the severance caused by major roads, railway lines will positively contribute	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures are unlikely to have any direct effect in this respect.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Implementation of measures aiming to improve accessibility and encourage active travel will help improve access to quiet and tranquil places for all.	+	None required
		Will reduce levels of noise generated?	Implementation of measures aiming to improve accessibility and encourage active travel will help reduce the generated level of noise, although not to a significant extent.	+	None required

Topic	Objective	Assessment guide questions	LIP Objectives Outcome 1: London's streets will be healthy and more Londoners will travel actively		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce inequalities in exposure to ambient noise?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce night time noise in residential areas?	Implementation of measures aiming to improve accessibility and encourage active travel will help reduce the night time noise, although not to a significant extent.	+	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Measures are unlikely to have any direct effect in this respect.	0	None required
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures are unlikely to have any direct effect in this respect.	0	None required

5.4.4 Matrix 3: LIP Objectives - Outcome 2: London's streets will be safe and secure

Table 5.7: SEA Matrix 3 LIP Objectives: Outcome 2: London's streets will be safe and secure

LIP Objective 6: Croydon will support and deliver the principles of the Vision Zero Action Plan and work towards ensuring we have the safest roads in London with no killed or serious injuries on our roads by 2041.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	The impact of the measures is likely to be neutral/significant	0	Implementation of the measures should consider local circumstances and employ relevant mitigation measures when required
		Will it help to achieve national and international standards for air quality?	The measures will be implemented locally and unlikely will have a significant impact on this achievement of national or international air quality standards	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Not applicable.	-	Implementation of the measures should consider local circumstances and employ relevant mitigation measures when required
		Will it result in air quality changes which negatively impact the health of the public?	It is unlikely the measures will have a significant negative impact on this.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	The impact of the proposed measures are unlikely contribute directly to this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Depends on local circumstances, the measures might lead to increase in exposure to poor air quality	-	Implementation of the measures should consider local circumstances and employ relevant mitigation measures when required.
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	The delivery of Vision Zero Action Plan and measures to improve road safety will have a positive impact on removing barrier to use of keystreetscapes and townscapes.	+	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	The implementation of the measures will positively contribute to this.	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures will not lead to physical changes/ adaptation to climate change.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Measures will not lead to physical changes/ adaptation to climate change.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures is not likely to have any direct impact on health inequalities.	0	None required
		Will it improve access to services during severe weather events?	Measures is not likely to have any direct impact on health inequalities	0	None required
		Will it reduce exposure to heat during heatwaves?	Measures is not likely to have any direct impact on this.	0	None required
		Will it enable those vulnerable during severe weather events to recover?	Measures is unlikely to support a recovery of those vulnerable during severe weather.	0	None required.
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures is not likely to have any direct impact on this.	0	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures is not likely to have any direct impact on this.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and	Will it reduce the demand and need for energy, whilst not leading to overheating?	The measure is unlikely to have any direct effect in this respect.	0	None required.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
	existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	The measure is unlikely to have any direct effect in this respect.	0	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	The measure is unlikely to have any direct effect in this respect.	0	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	The measure is unlikely to have any direct effect in this respect.	0	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	The measure is unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	The measure is unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures to improve road safety will positively contribute to this.	++	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures will positively contribute this, although not to a significant extent.	+	None required.
		Will it improve the wider historic environment and sense of place?	Measures will positively contribute this r, although not to a significant extent.	+	None required
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures will positively contribute this.	+	None required.
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures will positively contribute this.	+	None required.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will positively contribute this.	+	None required.
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	The measure unlikely to have direct impacts on this,	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures unlikely to have direct impacts on this. .	0	None required.
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it improve access to greenspaces for recreational and health benefits?	Measures will positively contribute to this..	+	Measures focused on areas near to greenspace.
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have direct impacts on this.	0	None required.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures unlikely to have direct impacts on this.	0	None required.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 2: London's streets will be safe and secure		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it result in a greener public realm that can enhance mental health benefits?	Measures unlikely to have direct impacts on this.	0	None required.
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures will positively contribute to this..	+	None required.
		Will reduce levels of noise generated?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it reduce inequalities in exposure to ambient noise?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it reduce night time noise in residential areas?	Measures unlikely to have direct impacts on this.	0	None required.
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Measures unlikely to have direct impacts on this.	0	None required.
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures unlikely to have direct impacts on this.	0	

5.4.5 Matrix 4: LIP Objectives - Outcome 3: London’s streets will be used more efficiently and have less traffic on them

Table 5.8: SEA Matrix 4 LIP Objectives - Outcome 3: London’s streets will be used more efficiently and have less traffic on them

LIP Objective 7: Croydon will reduce the volume of traffic on our roads and associated congestion through better management of our roads and kerbside space, and by offering pleasant, practical and safe alternatives to private cars and vans

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London’s streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures to reduce road traffic will positively contribute to this matter.	+	None required
		Will it help to achieve national and international standards for air quality?	Measures to reduce road traffic will positively contribute to this..	+	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and ‘at risk’ groups?	Measures to reduce road traffic will positively contribute to this.	+	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will not have a negative impact on health.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures are not likely to be sufficiently great to reduce the number of people exposed to poor air quality.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures to reduce road traffic will positively contribute to this..	+	None required
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Measures will positively contribute to this matter.	+	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Measures will positively contribute to this matter.	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures will positively contribute to this matter.	+	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	The proposed measure are unlikely to have direct impacts on this.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	The proposed measure are unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to services during severe weather events?	The proposed measure are unlikely to have direct impacts on this.	0	None required
		Will it reduce exposure to heat during heatwaves?	The proposed measure are unlikely to have direct impacts on this.	0	None required
		Will it enable those vulnerable during severe weather events to recover?	The proposed measure are unlikely to have direct impacts on this.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures will positively contribute to this matter.	+	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	The proposed measure are unlikely to have direct impacts on this.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	The proposed measure are unlikely to have direct impacts on this.	0	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	The proposed measure are unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	The proposed measure are unlikely to have direct impacts on this.	0	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures will positively contribute to this matter.	+	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures will positively contribute to this matter.	+	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	The proposed measure are unlikely to have direct impacts on this.	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures will positively contribute to this matter.	+	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures will positively contribute to this matter.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
	historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it improve the wider historic environment and sense of place?	Measures will positively contribute to this matter.	+	None required
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures will positively contribute to this matter.	+	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures will positively contribute to this matter.	+	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will positively contribute to this matter.	+	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this	0	None required
		Will it improve access to greenspaces for recreational and health benefits?	Measures will positively contribute this matter	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have direct impacts on this.	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures unlikely to have direct impacts on this.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures unlikely to have direct impacts on this.	0	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures unlikely to have direct impacts on this.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures will positively contribute to this matter, although not to a significant extent.	+	None required
		Will reduce levels of noise generated?	Measures will positively contribute to this matter, although not to a significant extent.	+	None required
		Will it reduce inequalities in exposure to ambient noise?	Measures unlikely to have direct impacts on this	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 3: London's streets will be used more efficiently and have less traffic on them		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures unlikely to have direct impacts on this	0	None required
		Will it reduce night time noise in residential areas?	Depends on project design and location. Measures will positively contribute to this matter, although not to a significant extent.	+	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Depends on project design and location. Measures have the potential to positively contribute to this matter.	+	None required
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures unlikely to have direct impacts on this.	0	None required

5.4.6 Matrix 5: LIP Objectives - Outcome 4: London's streets will be clean and green

Table 5.8: SEA Matrix 5 LIP Objectives - Outcome 4: London's streets will be clean and green

LIP Objective 8: Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures will positively contribute to this matter.	+	None required
		Will it help to achieve national and international standards for air quality?	Measures will positively contribute to this matter	++	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Measures will positively contribute to this matter.	++	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will not have a negative impact on health.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures are not likely to be sufficiently great to reduce the number of people exposed to poor air quality.	0	None required
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures will positively contribute to this matter	++	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Measures focused on the introduction of green infrastructures and tackle road based pollution will positively contribute to this matter.	+	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Measures focused on the introduction of green infrastructures and tackle road based pollution will positively contribute to this matter.	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures will positively contribute to this, although not to a significant extent.	+	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures unlikely to have direct impacts on this.	0	None required
		Will it improve access to services during severe weather events?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce exposure to heat during heatwaves?	Measures unlikely to have direct impacts on this.	0	None required
		Will it enable those vulnerable during severe weather events to recover?	Measures unlikely to have direct impacts on this.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures aimed at tackling road based air pollution, reducing traffic volumes and supporting the shift to zero emission vehicles will positively contribute to this.	++	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures will positively contribute to this matter, although not to a significant extent.	+	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Measures will positively contribute to this matter.	+	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures will positively contribute to this matter.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures will positively contribute to this matter.	+	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures will positively contribute to this matter.	+	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures will positively contribute to this matter.	+	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	The proposed measure is unlikely to have direct impacts on this.	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures unlikely to have direct impacts on this matter.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures unlikely to have direct impacts on this..	0	None required
		Will it improve the wider historic environment and sense of place?	Measures to promote traffic volumes reduction have the potential to improve sense of place.	+	None required
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures aimed at promoting traffic volumes reduction will positively contribute this matter.	+	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures have the potential to positively contribute this matter, although not to a significant extent.	0	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will positively contribute to this matter.	++	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures aimed at tackling road based air pollution by reducing traffic volumes have the potential to positively contribute to this matter.	+	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures will positively impact to this..	++	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this.	0	None required
		Will it improve access to greenspaces for recreational and health benefits?	Measures will positively impact this matter, although not to a significant extent.	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures will positively contribute this.	+	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the	Will it enhance the potential for the green space network to provide ecosystem services?	Measures will positively contribute to this matter.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
	services and benefits it provides, delivering a net positive outcome for biodiversity	Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures will positively contribute to this matter.	+	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures aimed at introducing new green infrastructure will positively impact on this matter.	++	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures will positively contribute to this matter.	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures will positively contribute to this matter.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures will positively contribute to this matter.	+	None required
		Will reduce levels of noise generated?	Measures aimed at reducing traffic volumes will positively impact this matter	+	None required
		Will it reduce inequalities in exposure to ambient noise?	Measures aimed at reducing traffic volumes will positively impact this matter	+	None required
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures aimed at reducing traffic volumes will positively contribute this matter, although not to a significant extent.	+	None required
		Will it reduce night time noise in residential areas?	Measures aimed at reducing traffic volumes will positively contribute this matter.	+	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Depends on project design and location.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 4: London's streets will be clean and green Croydon will tackle road-based air pollution by reducing traffic volumes, supporting the shift to zero emission vehicles and introducing new green infrastructure.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures unlikely to have direct impacts on this.	0	None required

5.4.7 Matrix 6: LIP Objective - Outcome 5: The public transport network will meet the needs of a growing London

Table 5.8: SEA Matrix 6 LIP Objective - Outcome 5: The public transport network will meet the needs of a growing London

Objective 9: Work with the Mayor, TfL, Network Rail, bus operators and TOCs to improve public transport links, reduce overcrowding on the public transport network and ensure Croydon is the best connected Metropolitan Town Centre in Outer London.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants,	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures aimed at improving public transport likely to positively contribute to this...	+	All new buses introduced to public transport fleet should be low emission, hybrid or electric

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
	particularly in areas of poorest air quality, and reduce exposure	Will it help to achieve national and international standards for air quality?	Measures will positively contribute to this. However, it is unlikely that the reduction will be significant at the national level in addition to effects of changes in vehicle technology and other MTS policies	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Measures will positively contribute to this.. However, it is unlikely that the reduction will be significant at the national level in addition to effects of changes in vehicle technology and other MTS policies	0	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will not have a negative impact on health.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures are not likely to be sufficiently great to reduce the number of people exposed to poor air quality.	0	None required
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures will positively contribute this matter. However, it is unlikely that the reduction will be significant at the national level in addition to effects of changes in vehicle technology and other MTS policies.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Improvements in public transport links are likely to support enhancement of character of key streetscapes and townscapes by removing barriers to use.	+	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Improvements in public transport links are likely to improve the use of the urban public realm.	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it improve access to services during severe weather events?	Measures will positively contribute to this though this is only likely be to slight.	+	None required
		Will it reduce exposure to heat during heatwaves?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it enable those vulnerable during severe weather events to recover?	Measures are unlikely to have any direct effect in this respect.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures will positively contribute to this by potential reduction.	0	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures are unlikely to have any direct effect in this respect.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Measures will positively contribute to this with potential reduction.	+	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures will positively contribute this though the impact is unlikely to be significant.	0	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures are unlikely to have any direct effect in this respect	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures will positively contribute to this.	+	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures will positively contribute to this.	+	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures will positively address deficiencies of access.	++	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it improve the wider historic environment and sense of place?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
	in relation to their significance and their settings.	Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures are unlikely to have any direct effect in this respect.	0	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will have significant positive impact on connectivity.	++	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures unlikely to have direct impacts on this matter.	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures will positively contribute to this.	+	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to greenspaces for recreational and health benefits?	Measures will positively impact this.	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have a direct impact on this.	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures unlikely to have direct impacts on this.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures will positively contribute this albeit that this will be relatively minor.	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures unlikely to have direct impacts on this.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures unlikely to have direct impacts on this.	0	None required
		Will reduce levels of noise generated?	Overall noise should be reduced though there is a possibility that measures could lead to increase in noise to a marginal extent unless mitigated	0	Noise mitigation measures should be implemented when necessary
		Will it reduce inequalities in exposure to ambient noise?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 5: The public transport network will meet the needs of a growing London		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce night time noise in residential areas?	Overall noise should be reduced though there is a possibility that measures could lead to increase in noise to a marginal extent unless mitigated	-	Noise mitigation measures should be implemented when necessary
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Overall noise should be reduced though there is a possibility that measures could lead to increase in noise to a marginal extent unless mitigated.	-	Noise mitigation measures should be implemented when necessary
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures to improve the public transport network will support these factors.	+	None required

5.4.8 Matrix 7: LIP Objective - Outcome 6: Public transport will be safe, affordable and accessible to all

Table 5.8: SEA Matrix 7 LIP Objectives - Outcome 6: Public transport will be safe, affordable and accessible to all

LIP Objective 10: Work with the Mayor, TfL, Network Rail, bus operators and TOCs to ensure the entire public transport network is accessible, safe and step free.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it help to achieve national and international standards for air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will not have a negative impact on health.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Measures will positively impact this.	++	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Measures will positively impact this.	++	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it improve access to services during severe weather events?	Measures will positively contribute to this.	+	None required
		Will it reduce exposure to heat during heatwaves?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it enable those vulnerable during severe weather events to recover?	Measures are unlikely to have any direct effect in this respect.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures are unlikely to have any direct effect in this respect.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures will have a significant positive impact on this.	++	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures are unlikely to have any direct effect in this respect	0	None required
		Will it improve the wider historic environment and sense of place?	Measures will positively contribute to this.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
	in relation to their significance and their settings.	Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures will positively contribute to this.	+	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures are unlikely to have any direct effect in this respect	0	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will positively contribute to this.	+	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures will positively contribute to this.	+	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to greenspaces for recreational and health benefits?	Measures will positively contribute to this.	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have direct impacts on this.	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures unlikely to have direct impacts on this.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures will positively contribute to this.	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures unlikely to have direct impacts on this.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures likely to positively contribute to this.	+	None required
		Will reduce levels of noise generated?	Measures unlikely to have direct impacts on this	-	None required.
		Will it reduce inequalities in exposure to ambient noise?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce night time noise in residential areas?	Measures unlikely to have direct impacts on this.	0	Noise mitigation measures should be implemented when necessary

Topic	Objective	Assessment guide questions	LIP Objective Outcome 6: Public transport will be safe, affordable and accessible to all		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Measures unlikely to have direct impacts on this.	0	Noise mitigation measures should be implemented when necessary
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures will positively contribute to this matter	+	None required

5.4.9 Matrix 8: LIP Objective - Outcome 7: Journeys by public transport will be pleasant, fast and reliable

Table 5.8: SEA Matrix 8 LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable

LIP Objectives:

- 11. Work with TfL to introduce additional bus priority measures on key road corridors to improve efficiency and reliability of bus services.
- 12. Lobby the TOCs and the DfT to improve performance of train services and reduce gaps in service frequencies

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures will likely positively contribute to this through improved public transport .	+	None required
		Will it help to achieve national and international standards for air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will likely positively contribute to this through improved public transport	+	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Measures are unlikely to have any direct effect in this respect	0	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Measures are unlikely to have any direct effect in this respect.	0	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect.	0	None required
		Will it improve access to services during severe weather events?	Measures will have a minor positive impact.	+	None required
		Will it reduce exposure to heat during heatwaves?	Measures are unlikely to have any direct effect in this respect.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it enable those vulnerable during severe weather events to recover?	Measures are unlikely to have any direct effect in this respect.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Depends on schemes implementation. Measures will likely positively contribute to this matter by a reduction in private car usage. However, the introduction of bus priority might lead to congestion caused by other users of the road. Overall, the impact unlikely will be significant	0	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures are unlikely to have any direct effect in this respect.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Measures will positively contribute to this	+	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures will positively contribute to this matter though the impact is unlikely to be significant.	+	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	This depends on transport operators' procurement.	?	Lobby transport operators as part of work with TfL, NR, DfT and operators

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	This depends on transport operators' procurement.	?	Lobby transport operators as part of work with TfL, NR, DfT and operators
		Will it provide infrastructure to make a better use of renewable energy sources?	This depends on transport operators' procurement.	+	Lobby transport operators as part of work with TfL, NR, DfT and operators
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures will positively impact on this.	+	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures are unlikely to have any direct effect in this respect	0	None required
		Will it improve the wider historic environment and sense of place?	Measures are unlikely to have any direct effect in this respect	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
	in relation to their significance and their settings.	Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures are unlikely to have any direct effect in this respect	0	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures are unlikely to have any direct effect in this respect	0	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Measures will positively impact this.	++	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to greenspaces for recreational and health benefits?	Measures will positively impact this matter	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have direct impacts on this	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures unlikely to have direct impacts on this.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures will positively contribute to this.	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures unlikely to have direct impacts on this.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures may have a broadly positively contribution to this.	+	None required
		Will reduce levels of noise generated?	Depends on schemes' location and implementation. However, it is unlikely to have direct impacts.	0	None required
		Will it reduce inequalities in exposure to ambient noise?	Depends on schemes' location and implementation. However, it is unlikely to have direct impacts	0	None required
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Depends on schemes' location and implementation. However, it is unlikely to have direct impacts	0	None required

Topic	Objective	Assessment guide questions	LIP Objectives - Outcome 7: Journeys by public transport will be pleasant, fast and reliable		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce night time noise in residential areas?	Depends on schemes' location and implementation. However, it is unlikely to have direct impacts	0	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Depends on schemes' location and implementation. However, it is unlikely to have direct impacts	0	None required
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures unlikely to have direct impacts on this	0	None required

5.4.10 Matrix 9: LIP Objective - Outcome 8: Active, efficient and sustainable travel will be the best option in new developments

Table 5.8: SEA Matrix 8 LIP Objective - Outcome 8: Active, efficient and sustainable travel will be the best option in new developments

LIP Objective 13. Croydon will ensure all new development incorporates the ten Healthy Streets principles into their design, and ensure they are integrated with the local walking and cycling networks as well as public transport.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures will likely positively contribute to this. However, overall, measures are not likely to give a significant improvement in air quality in addition to that due to changes in vehicle technology.	+	None required
		Will it help to achieve national and international standards for air quality?	Measures unlikely to have direct impacts on this	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Measures will likely positively contribute to this matter. However, overall, measures are not likely to give a significant improvement in air quality in addition to that due to changes in vehicle technology.	+	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will not have a negative impact on health.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures are not likely to be sufficiently great to have a significant impact on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures will likely positively contribute to this.	+	None required
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance the existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Implementation of Healthy Street principles as a part of new development design is likely to support the enhancement of streetscapes and townscapes.	+	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Implementation of Healthy Street principles as a part of new development design will support increased use of the public realm.	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures unlikely to have direct impacts on this.	0	None required
		Will it improve access to services during severe weather events?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce exposure to heat during heatwaves?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will it enable those vulnerable during severe weather events to recover?	Measures unlikely to have direct impacts on this.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Implementation of Healthy Street principles as a part of new development design will positively contribute to this. However, the impact is unlikely to be significant.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this, albeit in a minor way.	+	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this albeit in a minor way	+	None required
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures unlikely to have direct impacts on this.	0	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures likely to be positive towards this.	+	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Implementation of Healthy Street principles as a part of new development design is likely to support the enhancement of areas of historical, archaeological and cultural value/potential.	+	None required
		Will it improve the wider historic environment and sense of place?	Implementation of Healthy Street principles as a part of new development design is likely to positively impact on the wider historic environment and create a sense of place.	+	None required
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	The integration of Healthy Streets principles with new development design and local walking and cycling networks as well as public transport will positively contribute to this.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	The integration of Healthy Streets principles with new development design and local walking and cycling networks as well as public transport will positively contribute to this.	+	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	The integration of Healthy Streets principles with new development design and local walking and cycling networks as well as public transport will contribute positively to this.	++	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	The implementation of Healthy Streets principles as part of new development design is likely to have a positive impact on this.	+	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this, although the contribution is likely to be relatively small.	+	None required
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to greenspaces for recreational and health benefits?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have direct impacts on this.	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the planting of green roofs, green walls and soft landscaping?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures unlikely to have direct impacts on this.	0	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will reduce levels of noise generated?	Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
		Will it reduce inequalities in exposure to ambient noise?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 8: Active, efficient and sustainable travel will be the best option in new developments.		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Depends on project design and location. Implementation of Healthy Street principles as a part of new development design will likely positively contribute to this.	+	None required
		Will it reduce night time noise in residential areas?	Depends on project design and location. Implementation of Healthy Street principles as a part of new development design will positively contribute to this though the impact is likely to be minor.	+	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Depends on project design and location. Implementation of Healthy Street principles as a part of new development design will positively contribute to this.	+	None required
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Implementation of Healthy Street principles as a part of new development design and their integration with the local walking and cycling networks as well as public transport will positively contribute to this.	+	None required

5.4.11 Matrix 10: LIP Objective - Outcome 9: Transport investment will unlock the delivery of new homes and jobs

Table 5.8: SEA Matrix 10 LIP Objectives - Outcome 9: Transport investment will unlock the delivery of new homes and jobs'

LIP Objective 14. Work with key partners to increase public transport capacity in the borough to support the creation of new homes and jobs planned over the next two decades, including the extension of the tram to Crystal Palace and the upgrade of Brighton Mainline.

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
Air Quality	To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality, and reduce exposure	Will it help to reduce emissions of priority pollutants (e.g. PM ₁₀ , NO _x , NO ₂)?	Measures will likely positively contribute to this matter albeit that the contribution will be minor.	+	None required
		Will it help to achieve national and international standards for air quality?	Contribution to this is likely to be very low indeed in proportion to other efforts.	0	None required
		Will it reduce the number of people exposed to poor air quality, particularly for vulnerable communities and 'at risk' groups?	Measures will likely positively contribute to this though contribution to this is likely to be very slight in proportion to other efforts.	0	None required
		Will it result in air quality changes which negatively impact the health of the public?	Measures will not have a negative impact on health.	0	None required
		Will it reduce the number of premature deaths caused by poor air quality?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve air quality around areas which may have high concentrations of vulnerable people such as schools, outdoor play areas, care homes and hospitals?	Measures unlikely to have direct impacts on this.	0	None required
Attractive neighbourhoods	To create attractive, mixed use neighbourhoods, ensuring new buildings and spaces are appropriately designed that promote and enhance the existing sense of place and distinctiveness, reducing the need to travel by motorised transport.	Will it protect and enhance the character, integrity and liveability of key streetscapes and townscapes, including removing barriers to use?	Measures will likely positively contribute to this.	+	None required
		Will it improve the use of the urban public realm by improving its attractiveness and access?	Measures will likely positively contribute to this.	+	None required
Climate change adaptation	To ensure London adapts and becomes more resilient to the impacts of climate change and extreme weather events such as flood, drought and heat risks	Will it protect London from climate change impacts?	Measures unlikely to have direct impacts on this.	0	None required
		Will it help London function during extreme weather events (e.g. heat, drought, flood) without impacts on human health and/or well-being?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce health inequalities and impacts on vulnerable groups / communities and at-risk groups?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it improve access to services during severe weather events?	Measures will likely positively impact to this matter	++	None required
		Will it reduce exposure to heat during heatwaves?	Measures unlikely to have direct impacts on this.	0	None required
		Will it enable those vulnerable during severe weather events to recover?	Measures unlikely to have direct impacts on this.	0	None required
Climate change mitigation	To help tackle climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050	Will it help reduce emissions of greenhouse gases (including from transport), and help London meet its emission targets?	Measures will likely positively contribute to this matter	+	None required
		Will it reduce health inequalities and impacts on more vulnerable communities and at-risk groups	Measures unlikely to have direct impacts on this.	0	None required
Energy use and supply	To manage and reduce demand for energy, achieve greater energy efficiency, utilise new and existing energy sources effectively, and ensure a resilient smart and affordable energy system	Will it reduce the demand and need for energy, whilst not leading to overheating?	Measures unlikely to have direct impacts on this.	0	None required
		Will it promote and improve energy efficiency in transport, homes, schools, hospitals and other public buildings?	Measures will likely positively contribute to this matter albeit that the contribution will be minor.	+	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it increase the proportion of energy both purchased and generated from renewable and sustainable sources?	Measures unlikely to have direct impacts on this.	0	None required
		Will it encourage uptake of green/cleaner fuels and renewable energy provision across all transport providers and private cars?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide infrastructure to make a better use of renewable energy sources?	Measures will likely positively contribute to this matter, albeit that the contribution will be minor.	+	None required
		Will it reduce health inequalities and impacts of fuel poverty on vulnerable communities and at-risk groups?	Measures unlikely to have direct impacts on this.	0	None required
Fairness and inclusivity	To make London a fair and inclusive city where every person is able to participate, reducing inequality and disadvantage and addressing the diverse needs of the population.	Will it enable deficiencies of access to facilities to be positively addressed?	Measures will positively impact this matter	+	None required
Historic Environment	To conserve and enhance the existing historic environment, including sites, features, landscapes and areas of	Will it protect and enhance sites, features and areas of historical, archaeological and cultural value/potential?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
	historical, architectural, archaeological and cultural value in relation to their significance and their settings.	Will it improve the wider historic environment and sense of place?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance the historic environment, including removing barriers to use from vulnerable communities and at-risk groups?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and enhance valued/important historic environment and streetscape settings through inclusive design and management?	Measures unlikely to have direct impacts on this.	0	None required
Mental and physical Wellbeing	To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.	Will it improve connectivity to key services by promoting active modes of transport, thereby helping to reduce emissions from road transport	Increased transport capacity to support homes and jobs will provide a positive contribution to this.	+	None required
		Will it help to reduce health inequalities and their key contributory factors for all Londoners?	Measures unlikely to have direct impacts on this.	0	None required
		Will it reduce at risk and vulnerable groups' exposure to poor air quality?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it reduce flooding, heat and drought risk for at risk and vulnerable communities?	Measures unlikely to have direct impacts on this.	0	None required
		Will it improve access to greenspaces for recreational and health benefits?	Measures will likely positively contribute to this.	+	None required
		Will it help to reduce the number of people dying prematurely from preventable causes such as extreme heat and poor air quality?	Measures unlikely to have direct impacts on this.	0	None required
Natural Capital and Natural Environment	To protect, connect and enhance London's natural capital (including important habitats, species and landscapes) and the services and benefits it provides, delivering a net positive outcome for biodiversity	Will it enhance the potential for the green space network to provide ecosystem services?	Measures unlikely to have direct impacts on this.	0	None required
		Will it protect and improve the quality and extent of sites of importance for nature conservation and help restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required
		Will it provide opportunities to enhance the natural environment or restore wildlife habitats?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect and enhance the biodiversity of the region's waterbodies to achieve a good ecological status?	Measures unlikely to have direct impacts on this.	0	None required
		Will it increase the planting of green roofs, green walls and soft landscaping?	Measures unlikely to have direct impacts on this.	0	None required
		Will it create better access to green space to enhance mental and physical health benefits for all Londoners, particularly those with existing mental health conditions?	Measures will likely provide a broadly positive contribution to this albeit minor	+	None required
		Will it result in a greener public realm that can enhance mental health benefits?	Measures unlikely to have direct impacts on this.	0	None required
Noise and vibration	To minimise noise and vibration levels and disruption to people and communities across London and reduce inequalities in exposure	Will it improve access to quiet and tranquil places for all?	Measures will likely positively contribute to this, albeit that the contribution will be minor.	+	None required
		Will reduce levels of noise generated?	Depends on schemes' location and implementation though unlikely to have direct impact.	0	None required
		Will it reduce inequalities in exposure to ambient noise?	Measures unlikely to have direct impacts on this.	0	None required

Topic	Objective	Assessment guide questions	LIP Objective Outcome 9: Transport investment will unlock the delivery of new homes and jobs		
			Assessment	Scale of Effect	Mitigation or Enhancement
		Will it protect vulnerable groups at risk from impacts of noise pollution?	Depends on schemes' location and implementation though unlikely to have direct impact.	0	None required
		Will it reduce night time noise in residential areas?	Depends on schemes' location and implementation though unlikely to have direct impact.	0	None required
		Will it reduce the number of people exposed to high levels of noise with the potential to cause annoyance, sleep disturbance or physiological effects?	Depends on schemes' location and implementation though unlikely to have direct impact.	0	None required
Safety and security	To contribute to safety and security and generate the perceptions of safety;	Will it promote the design and management of green spaces that helps to reduce crime and anti-social behaviour?	Measures unlikely to have direct impacts on this.	0	None required

5.5 Monitoring

The LIP does not currently include specific proposals for environmental monitoring. However, in relation to the effects identified in the SEA, Temple and Steer recommend that key indicators from the set compiled by the London Sustainable Development Commission (LSDC) on Quality of Life issues be used by Croydon Council to monitor the environmental effects of the final Strategy and LIP. The LSDC indicator set is designed to gauge how London is performing against key measures of a sustainable city that supports and enhances quality of life. It has been specifically designed to be used by policy-makers to monitor trends and to inform future policy-making.

The recommended indicators for monitoring set out in **Table 5.12** following:

Table 5.12: Recommended indicators for monitoring the SEA for the draft Transport Strategy and LIP

No.	Indicator	Measure
	Environment	
1, 2	CO ₂ emissions	Total CO ₂ emissions in London
4	Oxides of nitrogen emissions	Tonnes of NO _x emitted in London
5	Particulate emissions	Tonnes of PM _{2.5} and PM ₁₀ emitted in London
8b	Flood risk (surface water)	Properties at risk of surface water flooding
	Social	
10	Healthy Life Expectancy	Healthy life expectancy at birth for men and women
N/A ¹⁹	Child Obesity	Percentage of overweight and obese children in Reception Year (aged 4-5) and Year 6 (aged 10-11)
15	Happiness	Self-reported levels of happiness
16	Satisfaction with London	% of Londoners satisfied with the capital as a place to live
18	Social integration	% of people who think their local area is a place where people from different backgrounds get on well together
	Economic	
19	Gross Value Added	Gross Value Added (GVA) per head (£) in London
20	Employment	Employment rate in London
24	Income inequality	Disposable income differentials in London
25	Child poverty	Children living in households below 60 per cent median income
27	London Living Wage	% of people earning less than London Living Wage (LLW) per hour in London

¹⁹ Department of Health statistics on prevalence of childhood obesity available at www.data.london.uk.

6.0 Next Steps

6.1 Development of the LIP

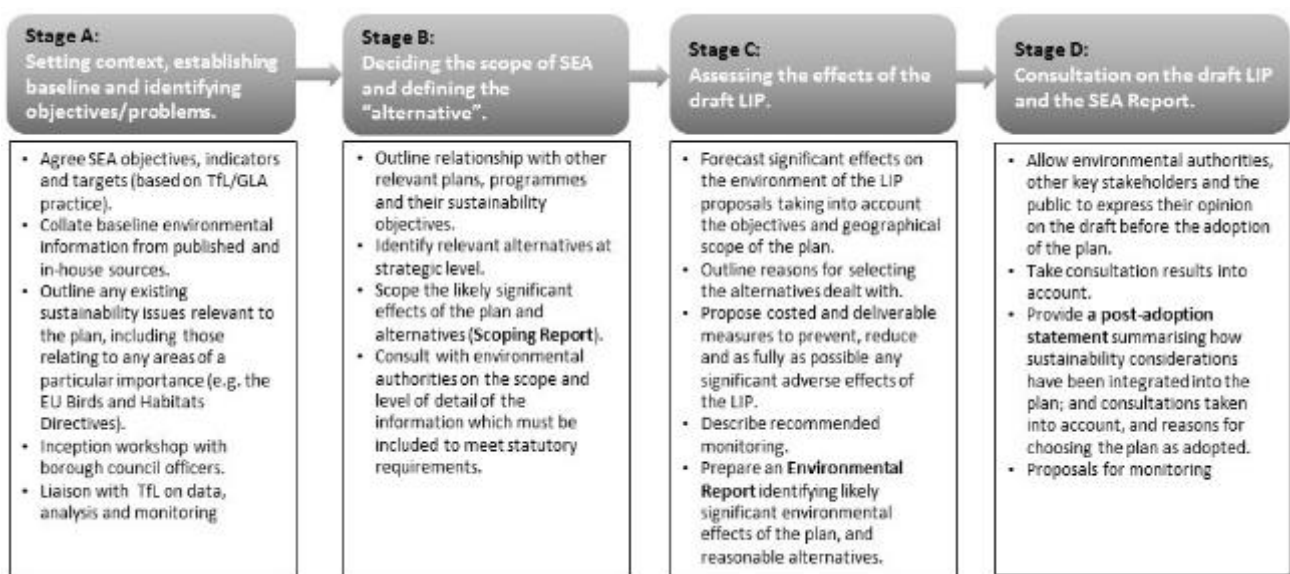
A draft of the LIP was submitted to Transport for London in November 2018 for comment. Croydon Council conducted a public consultation exercise on the LIP proposals up until the end of January 2019.

Taking account of the comments received from TfL and the outcomes of the consultation, together with the analysis presented in this Environmental Report, Croydon Council will make any revisions to the LIP that may be necessary, and a final version will be approved in early 2019. The LIP will come into operation in April 2019.

6.2 Remaining Stages in the SEA Process

The stages that Temple and Steer are following in the SEA process are shown in **Figure 6.1** below.

Figure 6.1: Stages in the SEA Process



Adapted from: ODPM (2005) - **A Practical Guide to the Strategic Environmental Assessment Directive**

This Environmental Report represents the output from Stage C of the process illustrated above.

During Stage D, Temple and Steer will prepare the Post-Adoption Statement on behalf of Croydon Council, who will publish this in turn. The Post-Adoption Statement will clearly summarise the way that consultation has influenced the assessment process, demonstrate how feedback has been considered, identify changes that have been made and the reasons for choosing the preferred policies and options.

In line with the requirements of the SEA Regulations, the Borough Council will monitor the effects of the LIP. This will feed into any future LIP progress reporting.