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Lewisham Transport Strategy and Local Implementation Plan 2019-2041 (LIP3)

Strategic Environmental Assessment

Environmental Report

London Borough of Lewisham

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Quality

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By adopting our QMS on all aspects of the Company, Project Centre aims to achieve the following objectives:

- Ensure a clear understanding of customer requirements;
- Ensure projects are completed to programme and within budget;
- Improve productivity by having consistent procedures;
- Increase flexibility of staff and systems through the adoption of a common approach to staff appraisal and training;
- Continually improve the standard of service we provide internally and externally;
- Achieve continuous and appropriate improvement in all aspects of the company;

Our Quality Management Manual is supported by detailed operational documentation. These relate to codes of practice, technical specifications, work instructions, Key Performance Indicators, and other relevant documentation to form a working set of documents governing the required work practices throughout the Company.

All employees are trained to understand and discharge their individual responsibilities to ensure the effective operation of the Quality Management System.



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1. NON-TECHNICAL SUMMARY

1.1 Introduction

- 1.1.1 Under the Strategic Environmental Assessment (SEA) Directive 2001/42/EC, the London Borough of Lewisham is required to undertake a 'Strategic Environmental Assessment' (SEA) of the borough's Third Local Implementation Plan (LIP) to determine the likely significant environmental effects of the proposed objectives and initiatives set out therein and to demonstrate how environmental considerations have been integrated into the Local Implementation Plan proposed programmes.
- 1.1.2 The Environmental Report builds on the SEA Scoping Report produced by Project Centre for Lewisham Council in September 2018.
- 1.1.3 The SEA Directive requires authorities to assess the likely significant effects of their plans and programmes on the environment, including on issues such as biodiversity, population, human health, flora and fauna, soil, water, air, climatic factors, material assets, cultural heritage including architectural heritage, landscape and townscape and the interrelationship between these factors.
- 1.1.4 The main requirements introduced by the SEA Regulations are that:
- the findings of the SEA are published in an Environmental Report, which sets out the significant effects of the draft plan, in this case LIP3;
 - consultation is undertaken on the plan and the Environmental Report;
 - the results of consultation are considered in decision-making relating to the adoption of the plan; and
 - information on how the results of the SEA have been considered is made available to the public. It is a systematic process that identifies and predicts the potential significant environmental effects of plans/programmes, informing the decision-making process by testing different alternatives or options against environmental sustainability objectives.

1.2 What is the Lewisham Third Local Implementation Plan?

- 1.2.1 A Local Implementation Plan is a statutory document, which sets out how a London Borough proposes to implement the London Mayor's Transport Strategy (MTS) at a local level. The Lewisham LIP provides details of the borough's transport programme and funding requirements. It covers the same period as the third MTS and includes specific delivery proposals for the three-year period 2019/20 – 2021/22 and outlines the Council's framework for the

delivery of transport projects, which accord with the nine outcomes set in the third Mayor's Transport Strategy.

- 1.2.2 It additionally reflects the transport needs and aspirations of the people of Lewisham.

1.3 What is a Strategic Environmental Assessment

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

- 1.3.2 SEA is a systematic way to examine the likely significant effects of implementing a plan or programme and its reasonable alternatives. It is an iterative process, informing each stage of the development of a plan and feeding back information on how the plan is likely to affect the environment. The stages of the SEA are outlined below:

- **Stage A** – Setting the context and objectives, establishing the baseline and deciding on the Scope.
- **Stage B** – Developing and refining alternatives and assessing effects
- **Stage C** – Preparing the Environmental Report
- **Stage D** – Consulting on the draft plan and the Environmental Report
- **Stage E** – Monitoring the significant effects of implementing the plan or programme on the environment

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

- To aide consultation on the LIP by providing consultees with information on the potential environmental effects.
- To assist Lewisham Council with decision making on the LIP by highlighting the potential environmental effects of the plan.

1.4 Coverage of the Environmental Report

- 1.4.1 The following items have been examined during the assessment and are presented in the Environmental Report:
- Scope of the SEA and the SEA methodology

- Background information on Lewisham's Third LIP and its main objectives;
- Relationship of the SEA and Third LIP;
- The environmental baseline
- The SEA Framework of objectives
- The compatibility of LIP objectives with SEA objectives
- Development of alternatives for the LIP
- Assessment of the environmental effect of the LIP and its alternatives
- Identification and analysis of environmental problems
- Proposed mitigation and enhancement measures
- Monitoring measures.
- Consultation on Draft LIP3 and SEA

1.5 Environmental Context and baseline

- 1.5.1 The LIP is influenced by other relevant plans, programmes and strategies at international, national, regional and local levels. At international level, international agreements and EU directives establish requirements and guidance on issues such as sustainable development, climate change, biodiversity, habitats, water and air quality. There are also specific national plans, guidance and strategies on aspects such as transport, planning, climate change, air quality, biodiversity, the historic environment and sustainable development. At the London-wide level, the London Plan and MTS are key policy documents which influence the direction of the LIP. At the local level, Lewisham's Local Development Framework sets a framework for the future development of the borough.
- 1.5.2 Key environmental objectives of these various plans and programmes have been considered in the assessment of the Lewisham LIP. The SEA Regulations require that the current state of the environment and its likely evolution without the implementation of the LIP are described.

1.6 SEA Framework

- 1.6.1 A SEA framework of objectives has been devised from the review of plans and programmes, analysis of baseline data and consideration of environmental issues within the borough. This framework, which includes a series of environmental objectives, is used to assess the environmental effects of the Third Lewisham LIP.
- 1.6.2 The SEA Directive does not specifically require the use of objectives or indicators in the SEA, but objectives can usefully
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demonstrate how environmental effects can be described, analysed and compared. The SEA objectives include:

- Reduce negative impact of the transport network on biodiversity, flora and fauna
- Increase the number of trees on the highway
- Create conditions to improve health and reduce health inequalities
- Reduce CO2 emissions emanating from ground-based transport
- Minimise soil contamination through land-based transport
- Minimise ground water contamination through land-based transport
- Improve surface water drainage
- Protect and enhance the natural and historic environment and quality and character of Lewisham
- Reduce noise and vibrations from ground based transport
- Ensure all residents have access to public transport
- Ensure footpaths are maintained and easy to navigate by all users
- Reduce levels of ground based transport, mainly private cars, HGVs
- Improve road safety to reduce casualties of all road users in Lewisham

1.7 Consideration of Alternatives for the LIP

- 1.7.1 A key element of the SEA process is the proactive consideration of alternative ways of delivering the plan so that an assessment can be made of the best environmental options to take forward. In considering alternatives for the LIP, it is important to remember its role in implementing the MTS at a local level and the extent to which this sets a limit on the range of options that can be considered. Alternatives help inform the initial thinking on those transport initiatives that are prioritised within the LIP Delivery Programme. The aim of the exercise is to assess the variety of options available for implementing the draft LIP objectives and the priorities of the MTS. It also assisted decision making on the preferred options to prioritise, taking account of the potential environmental effects of the whole LIP.

1.8 Mitigation

- 1.8.1 Where significant effects are predicted then the SEA makes recommendation on the measure to prevent, reduce or offset

these impacts. Measures may include changes to the LIP, requirements for further studies, or recommendation for specific measures to particular schemes. Measures to enhance beneficial effects can also be included.

1.9 Monitoring

- 1.9.1 Monitoring helps to keep track of the actual environmental effects of implementing the Lewisham LIP. The Lewisham LIP includes a programme to monitor delivery of the transport initiatives, including annual reports on the performance of the LIP against targets. SEA monitoring is also proposed within the Environmental Report based on the SEA framework. These measures are subject to on-going consultation and will be defined in more detail in the run up to publication of the SEA Statement following adoption of the final LIP which is anticipated in March 2019.

2. INTRODUCTION

2.1 Background

- 2.1.1 The geographical area that this SEA covers is the London Borough of Lewisham.
- 2.1.2 Lewisham, like all London local authorities, is required under the Greater London Authority Act 1999 to produce a Local Implementation Plan (LIP) showing how the authority intends to implement policies, strategies and programmes over the life of the plan to implement the Mayor's Third Transport Strategy (MTS3). The preparation of the LIP should also consider the objectives set out in other Mayoral Strategies. The LIP3 covers the same period as the MTS3 and includes specific delivery proposals for the first three-year period of 2019/20 – 2021/22.
- 2.1.3 Under the Strategic Environmental Assessment (SEA) Directive 2001/42/EC, the London Borough of Lewisham is required to undertake an assessment of the borough's Third Local Implementation Plan (LIP) to determine the likely significant environmental effects of the proposed objectives and initiatives set out therein.

2.2 The SEA and the regulations

- 2.2.1 Under European legislation the Strategic Environmental Assessment (SEA) Directive (2001/42/EC) requires that responsible authorities ensure that due regard for environmental and sustainability impacts are comprehensively integrated when drawing up any plans.
- 2.2.2 The objective of the SEA directive is:
'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development'.
- 2.2.3 Thus, a SEA ensures that environmental and sustainability implications of the LIP are adequately identified, addressed, mitigated, communicated to decision makers and monitored. The process also provides adequate opportunities to engage stakeholders, thus reducing the potential harm done to the environment.
- 2.2.4 Article B of the Directive 2001/42/EC requires the Environmental Report and the results of consultation to be considered during the decision-making process. To be effective, an SEA should be undertaken as an iterative process and should be fully integrated into the plan-making process.

2.3 Scope of the SEA

2.3.1 The SEA Directive provides an indicative list of issues/topics that should be considered when looking at the environmental impacts of the LIP. These include:

- Biodiversity, flora and fauna
- Population and human health
- Air quality
- Soils and contaminated land
- Climate change
- Water
- Preparation for flooding
- Cultural heritage, landscape and townscape
- Noise
- Accessibility
- Congestion
- Road safety

2.3.2 The SEA Directive requires that efforts are focussed on significant environmental impacts of the LIP. The Environmental Report is not intended to cover all impact or environmental issues. The Environmental Report is not meant as a replacement for any Council reports that publish data, targets or monitoring information. In addition, the Environmental report is not designed to carry out an Environmental Impact Assessment of individual proposals, policies or programmes. It is a strategic assessment of potential significant impacts of the LIP.

2.3.3 The SEA Directive and Regulations stress the importance of a reasonable approach to the assessment and the need to conduct the assessment at the right level. A reasonable approach considers issues such as resources, time and information available.

2.3.4 The SEA is restricted to the geographical area of the LIP, being in this case, the London Borough of Lewisham. The SEA covers the same period as the LIP, which is from 2019/20 to 2021/22. Elements of the LIP such as targets and the Delivery Plan have a shorter timescale and will be updated during the life of the LIP.

2.4 Third Lewisham LIP

2.4.1 The Third LIP sets out Lewisham's long term goals and transport objectives for the next 20 years, a three-year programme of investment starting in 2019/20, and includes delivery proposals for the period 2019/20 - 2021/22 and the targets and outcomes the

borough are seeking to achieve. A more detailed delivery plan is provided for the financial year 2019/20.

2.4.2 This LIP identifies how the London Borough of Lewisham will work towards achieving the MTS goals of:

- Healthy Streets and healthy people
- A good public transport experience
- New homes and jobs

2.4.3 The Council notes that 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, compared to 63% today. There are different targets set for all London boroughs. The MTS target for Lewisham is 81% of all trips to be made on foot, by cycle or using public transport by 2041 in the borough, compared to the 68% observed in 2016/17.

2.4.4 Lewisham's transport objectives as set out in the third LIP are:

- Travel by sustainable modes will be the most pleasant, reliable and attractive option for those travelling to, from and within Lewisham.
- Lewisham's streets will be safe, secure and accessible to all.
- Lewisham's streets will be healthy, clean and green with less motor traffic.
- Lewisham's transport network will support new development whilst providing for existing demand.

2.4.5 Lewisham's delivery plan for the period 2019/20 – 2021/22 is indicated in the table below:

London Borough of Lewisham TfL BOROUGH FUNDING 2019/20 TO 2021/22	Programme budget		
	Allocated 2019/20	Indicative e 2020/21	Indicative 2021/22
CORRIDOR, NEIGHBOURHOODS & SUPPORTING MEASURES	£k	£k	£k
Crofton Park Corridor	350	350	0
Deptford Parks Liveable Neighbourhoods	0	50	0
A21 Healthy Streets Corridor outcome definition	20	0	0
Healthy Neighbourhoods	508	558	978
Local Pedestrian Improvements	100	100	100

Local Cycling Improvements	250	250	250
Road Danger Reduction	180	100	100
Air Quality and Noise	100	100	80
Safer and Active Travel	327	327	327
Public Transport Supporting Interventions	10	10	10
Small scale schemes	30	30	30
Completion of previous years' schemes	65	65	65
Sub-total	1,940	1,940	1,940
DISCRETIONARY FUNDING	£k	£k	£k
Deptford Parks Liveable Neighbourhoods	157	940	450
Sub-total	157	940	450
GOOD GROWTH FUNDING	£k	£k	£k
Deptford Parks Liveable Neighbourhoods*	300	250	250
Sub-total	300	250	250
All TfL borough funding	£2,397k	£3,130k	£2,640k

Table 1: Lewisham's delivery plan for the period 2019/20 – 2021/2022

2.4.6 The targets and outcomes the borough is seeking to achieve are indicated below:

Outcomes	Observed	Year	Trajectory	Year	Trajectory	Year
Overall aim: 80% walking, cycling and public transport	68	2014/15 to 2016/17	72	2021	81	2041
Outcome 1a: % Londoners to do at least the 20 minutes of active travel they need to stay healthy each day	37	2014/15 to 2016/17	44	2021	70	2041
Outcome 1b: Londoners have access to a safe and pleasant cycle network	4	2016	19	2021	71	2041

Outcome 2: Vision Zero – deaths and serious injuries from all road collisions to be eliminated from our streets	67	2016	48	2021	0	2041
Outcome 3a: Reduce the volume of traffic in London	766	2016	747	2021	598	2041 (-20%)
Outcome 3b: London's streets will be used more efficiently and have less traffic on them	18,502	2017/18	18,958	2021	17,842	2026
Outcome 3c: Reduce car ownership in London	76,037	2016	75,100	2021	67,800	2041
Outcome 4a: Reduced CO2 emissions	155,200	2013	132,000	2021	34,800	2041
Outcome 4b: Reduced NOx emissions	610	2013	200	2021	30	2041
Outcome 4c: Reduced particulate emissions (PM10)	54	2013	44	2021	24	2041
Outcome 4d: Reduced particulate emissions (PM2.5)	30	2013	21	2021	12	2041
Outcome 5: Increase public transport use	222	2014/15 to 2016/17	255	2021	331	2041
Outcome 6: Everyone will be able to travel spontaneously and independently	Observed 2015 Average journey time using full network (minutes)	Observed 2015 Average journey time using step-free network (minutes)	Observed 2015 Time difference (minutes)	Trajectory 2041 Average journey time using full network (minutes)	Trajectory 2041 Average journey time using step-free network (minutes)	Trajectory 2041 Time difference (minutes)

	77	84	7	68	71	3
Outcome 7: Bus journeys will be quick and reliable, an attractive alternative to the car (15% change)	9.2	2015	9.6	2021	10.6	2041

Table 2: Targets and outcomes Lewisham are seeking to achieve

3. SEA METHODOLOGY

3.1 SEA Process

3.1.1 The SEA directive identifies five stages to the SEA process as summarised below:

Stage	Tasks	Output
Stage A	Set context & objectives, establish baseline & scope	Scoping Report
Stage B	Develop and refine alternatives and assess impacts	Environmental Report
Stage C	Prepare the environmental report	Environmental Report
Stage D	Consultation on draft plan and environmental report	Supplementary or revised Environmental Report
Stage E	Monitoring implementation of the plan	SEA post-adoption statement

Table 3: Five stages of the SEA

3.1.2 The scoping report (stage A) was issued in September 2018 to the following organisations for consultation:

- English Heritage
- Environment Agency
- Natural England

3.1.3 Responses were received, from Environment Agency (checklist of likely effects on the environment) and Natural England (no comment). A detailed response was also received from Historic England (formerly English Heritage). All responses are summarised in chapter 6, together with an indication of how they have been used in the development of this Environment Report.

3.1.4 The Environmental report is the main output of the SEA process. It builds on the content of the Scoping Report (see appendix A) and covers stages B to C. It therefore documents the process by which the objectives of the Local Implementation Plan for Lewisham have been developed, ensuring the integration of SEA aspects likely to be affected by the plan.

3.1.5 The Environmental Report is part of the LIP. The public and Environmental Bodies will be given the opportunity to comment on

the draft LIP and Environmental Report (stage D). Following consultation and revision, the Council will be asked to adopt the LIP.

3.2 SEA and LIP relationship

- 3.2.1 The SEA Directive requires that ‘an Environmental Report shall be prepared in which the likely significant effects on the environment of the plan or programme, and reasonable alternatives considering the objectives and geographical scope of the plan or programme, are identified, described and evaluated.’
- 3.2.2 This environmental report explains the likely significant environmental impacts of the LIP3 proposals, the alternatives considered and the mitigation measures proposed. It demonstrates compliance with the SEA regulations and will accompany the draft LIP3 through the consultation process to encourage active and transparent consultation on the draft LIP3.
- 3.2.3 Table 4 indicates the main work component stages for the preparation of the Lewisham LIP3, the stages of the SEA process and the links between them.

LIP3 Stage	SEA Stage
Determining the scope of the LIP3; clarifying goals; specifying the problems or challenges	A: Setting the context & objectives, establishing baseline & scope (Scoping Report)
Generating options to resolve these challenges; appraising the options and predicting their effects	B: Developing, refining and appraising strategic options
Selecting preferred options for LIP3 and deciding priorities	B: Assessing the effects of the LIP3 preferred options and proposing mitigation measures
Production of the draft LIP3	C: Prepare Environmental Report
Consultation on draft LIP3	D: Consultation on the Environmental Report
Production of final LIP3	D: Prepare a supplementary or revised Environmental Report if necessary
Adoption of LIP3	E: SEA post-adoption statement

Table 4: LIP3 and SEA Process Stages and Links

4. REVIEW OF RELEVANT POLICIES

4.1 Mayor's Transport Strategy

4.1.1 The new MTS (2018) sets out the plans to transform London's streets, improve public transport, improve health and create opportunities for new homes and jobs. To achieve this, the Mayor wants to encourage more people to walk, cycle and use public transport.

4.1.2 The city's population is forecast to rise from 9 million people today to 10.8 million in 2041, which generates significant transport challenges. As such, new ways need to be found to plan and manage this expected growth.

4.1.3 The Mayor, through TfL and the boroughs, and working with stakeholders, will reduce Londoners' dependency on cars in favour of active, efficient and sustainable modes of travel.

4.1.4 The key aims of the MTS are listed below:

- 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041
- By 2041, for all Londoners to do at least the 20 minutes of active travel they need to stay healthy each day
- No one to be killed in or by a London bus by 2030, and for deaths and serious injuries from all road collisions to be eliminated from the streets by 2041.
- To reduce freight traffic in the central London morning peak by 10 per cent on current levels by 2026, and to reduce total London traffic by 10-15 per cent by 2041,
- All taxis and PHVs would be zero emission capable by 2033 at the latest, all buses would be zero emission by 2037 and London's entire transport system would be zero emission by 2050.
- To open Crossrail 2 by the early 2030s
- To create a London suburban metro
- To improve the overall accessibility of the transport system including, by 2041, halving the average additional time taken to make a public transport journey on the step-free network compared to the full network.
- To ensure that regeneration and new development schemes incorporate the Mayor's principles of Good Growth,

4.1.5 The objectives of the MTS are:

- To reduce emissions and concentrations of harmful atmospheric pollutants, particularly in areas of poorest air quality and reduce exposure;

- 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;
- To reduce the threat of climate change through reducing greenhouse gas emissions and moving towards a zero carbon London by 2050; and
- To improve the mental and physical health and wellbeing of Londoners and to reduce health inequalities across the city and between communities.

4.1.6 To implement the strategy's proposals successfully there is a requirement to:

- Develop and deliver strategies and plans to achieve the Mayor's priorities;
- Prepare for new technology and unpredictable changes to the way we live;
- Find a more efficient and fair way of paying for transport projects in London; and
- Work with partners across London and beyond, including the Government, London boroughs, other transport operators, business and other stakeholders.

4.1.7 By 2041, the MTS is expected to have delivered the following nine outcomes:

	MTS Outcomes
1	London's streets will be healthy and more Londoners will travel actively;
2	London's streets will be safe and secure;
3	London's streets will be used more efficiently and have less traffic on them;
4	London's streets will be clean and green;
5	The public transport network will meet the needs of a growing London;
6	Public transport will be safe, affordable and accessible to all;
7	Journeys by public transport will be pleasant, fast and reliable;
8	Active, efficient and sustainable travel will be the best option in new developments; and
9	Transport investment will unlock the delivery of new homes and jobs

Table 5: MTS Outcomes**4.2 National, London and local policies**

4.2.1 Both LIP3 and the SEA should be set in the context of international, national, regional and local objectives along with environmental, strategic planning, transport, health and social policies.

4.2.2 The following national documents have been considered in the preparation of the LIP3.

- Air Transport White Paper (2010)
- Historic England Three Year Corporate Plan 2018 – 2021 (2018)
- UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations (2017)
- UK Post-2010 Biodiversity Framework (2012)
- National Planning Policy Framework (2012)
- The Climate Change Act (2008)

4.2.3 The following Greater London documents have been reviewed:

- Better Health, Better Environment- a GLA Guide for London Borough's (2013)
- London Environment Strategy (2018)
- The London Plan (2016)
- Mayor of London's Vision Zero Action Plan (2018)
- Mayor of London's Draft Economic Development Strategy for London (2017)
- Mayor of London's Vision Zero Action Plan (2018)
- Mayor of London's Water Strategy (2011)
- Mayor of London's Vision for Cycling in London (2013)
- Mayor of London's Health Inequalities Strategy (2017)
- Mayor of London's Climate Change Mitigation and Energy Strategy (2015)

4.2.4 Lewisham's policy and legislative context includes:

- Lewisham Biodiversity Action Plan – A Natural Renaissance for Lewisham (2015 – 2020)
- Lewisham Local Flood Risk Strategy (2015)
- Lewisham Air Quality Plan (2016)
- Lewisham Borough Wide Character Study (2010)

- Lewisham Carbon Reduction and Climate Change Strategy (2008)
- Lewisham Comprehensive Equalities Scheme 2016-200
- Lewisham Core Strategy (2011)
- Lewisham Cycle Strategy (2017)
- Lewisham Health and Wellbeing Strategy 2015 – 2018
- Lewisham Planning Obligations SPD 2015
- Lewisham Regeneration Strategy 2008 – 2020 (2008)
- Lewisham River Corridor Improvement Plan (2015)
- Lewisham Sustainable Community Strategy 2008 – 2020
- Lewisham Local Implementation Plan 2011 - 2031
- Tackling Obesity in Lewisham (2016)

4.2.5 The above policies and plans support each other in protecting and enhancing the environment.

5. ENVIRONMENTAL BASELINE

5.1 Lewisham local content

- 5.1.1 The geographical area that this SEA is the London Borough of Lewisham. The Borough extends from the River Thames in the north to Downham in the south, and from Upper Sydenham in the west to Grove park in the east.
- 5.1.2 The London Borough of Lewisham is divided into a total of 18 wards, covering 13km² in southeast London, and is the twelfth smallest of the 32 London Boroughs by area. Lewisham shares its borders with the London Boroughs of Greenwich, Southwark and Bromley and the River Thames.
- 5.1.3 Lewisham is connected to the rest of London via road, DLR and London Overground services.
- 5.1.4 The A2, A20 A21, A202 and A205 West are major transport routes within the Borough.
- 5.1.5 There are twenty railway stations and three Docklands Light Railway (DLR) stations in the Borough. There are no London Underground stations in the Borough.

5.2 Biodiversity, flora and fauna

- 5.2.1 Lewisham has more than 560 hectares of green space (in public and private ownership), which constitutes about 14% of the borough's land area). Approximately 370 hectares of land in the borough are public parks. These areas of greenland play an important role in contributing to the biodiversity within the borough.
- 5.2.2 There are several designated open spaces with within the Borough, the number of which are shown in Table 6

Designation	No.
Natura 2000	none
Sites of Nature Conservation Importance (SNCI)	70
Sites of Special Scientific Interest (SSSI's)	none
National Nature Reserve (NNR)	none
Local Nature Reserve (LNR)	19

Table 6: Number of designated sites and reserves

- 5.2.3 There are several nationally protected and priority species in the borough. These include the Black Redstart, bats, Stag Beetle,

House Sparrow and various more common wild plants and animals.

- 5.2.4 It is not foreseen that the LIP will have any significant impact on biodiversity, flora and fauna. The Environmental Report will note where biodiversity, flora and fauna might be impacted.

5.3 Population and human health

- 5.3.1 Population Census data obtained in 2011 identified that the total population within the London Borough of Lewisham was 275,885. By 2023, the population is expected to rise to 332,200.
- 5.3.2 Lewisham is an ethnically diverse borough with 58.5% of residents from black, Asian and minority ethnic (BAME) groups at the time of Census 2011.
- 5.3.3 Data gathered at the 2011 Census determine that 32,875 people travel into the Borough to work, whilst 90,116 travel out of the Borough to work. It can be determined that commuting results in a population decrease of 57,241 in the Borough.
- 5.3.4 The Mayor has made it his ambition that every Londoner walks or cycles for twenty minutes every day (in periods of at least 10 minutes). This is important because physical activity every day helps to prevent a wide range of diseases. The easiest way for Londoners to keep active is to build walking or cycling into their daily travel, either through walk and cycle trips or as part of a public transport trip.
- 5.3.5 The LIP provides Lewisham with the opportunity to encourage increased activity within the resident population and with those who visit or work in the Borough.
- 5.3.6 The LIP contains many proposals which are aimed at encouraging walking and cycling, through improvements to pedestrian and walking facilities, including personal safety and security, and improved street cleaning. These proposals are in line with the aims of the MTS and will have a beneficial impact on human health.
- 5.3.7 The LIP proposals will improve accessibility for wheelchair users, older people and other user groups such as people with pushchairs, for example, improving bus stop accessibility for these user groups. These proposals are in line with the MTS and will have a positive impact on accessibility.

5.4 Air quality

- 5.4.1 The European Union (EU) air quality policy sets the overall context for national policy. The aim of the EU policy is to develop an overall strategy through the setting of long-term air quality targets. These air quality limit values are set through a series of directives.

The UK National Air Quality Strategy defines the future air quality policy in the UK and sets objectives for several key air pollutants.

- 5.4.2 According to the Department for Energy and Climate Change (2011), Lewisham has the lowest per capita carbon emissions in Inner London, the second lowest in the capital (after Redbridge) and the fourth lowest in the UK. Research carried out by Pro Vision Planning & Design (2015) found that whilst the level of CO² emissions are decreasing in the borough, emissions arising from domestic use are more than twice of those arising from the industry and commercial sector.
- 5.4.3 Air quality monitoring carried out in 2013, found that pollutant levels were high on the primary road network and in the northwest of the borough near the boundary with the London Borough of Southwark. Based on the results of pollution monitoring and modelling, the borough has introduced five Air Quality Management Areas (AQMA's).
- 5.4.4 Lewisham has recently revised their Air Quality Management Plan, which replaces the previous plan issued in 2008. The plan outlines the proposals to improve air quality in the borough between 2016 and 2021.
- 5.4.5 Major hotspots for poor quality have been identified on the TfL road network, which the borough has limited direct control, which reduces the borough's ability to improve air quality from vehicular traffic. This indicates that an effective air quality strategy requires a coordinated approach, involving not only Lewisham, but also regional bodies such as the Greater London Authority, Transport for London and Highways England.
- 5.4.6 The focus areas are associated with the major road network that criss-crosses the borough. From an air quality perspective, this provides a focus for LIP measures that will alleviate congestion and encourage a reduction traffic.

5.5 Climate change

- 5.5.1 Road and rail traffic emit carbon dioxide, a greenhouse gas that contributes towards climate change. Infrastructure, buildings, businesses, and community cohesion are all likely to feel the impacts of more regular severe flooding, heatwaves, extreme weather events and reduced access to important resources like water. It is a key area for councils to engage in resilience thinking.
- 5.5.2 The LIP is expected to generate positive environmental improvements, though the effects on climate change will be difficult to monitor and quantify. The important contribution of sustainable transport policies to the climate change agenda is recognised, though the LIP is unlikely to have a significant impact.

5.6 Soils and contaminated land

- 5.6.1 The solid geology underlying Lewisham is predominantly marine London Clay in the central and southern sections of The Borough, with a pocket of Lambeth Group Clay in the south and several pockets in the north. Towards the north of The Borough there are also pockets of chalk and Thanet Sands formations. In the northeast and in the south and south-eastern sections of The Borough there are also pockets of Harwich Formation sand and gravels (Source: Pro Vision Planning & Design 2015).
- 5.6.2 The drift deposits are concentrated in the north and central sections of the borough, with alluvium near the River Thames and the River Ravensbourne Valley. Gravels of the Kempton Park Gravel Formation can generally be found adjacent to the alluvial deposits (Source: Pro Vision Planning & Design 2015).
- 5.6.3 There is a pocket of Langley Silt Formation deposits on the northwest of The Borough and pockets of Head (clay) in the south of the borough (Source: Pro Vision Planning & Design 2015).
- 5.6.4 In the north of the borough bordering the Thames, much of the land has a long industrial heritage with the potential for many historical activities, which could have implications for soil and groundwater contamination. A significant proportion of this land will be remediated in time via the planning process. However, as a major aquifer underlies this part of the area, the authority will make it a key aim of its inspection programme that controlled waters are protected.
- 5.6.5 There are currently no entries recorded in Lewisham's Contaminated Land Register. This should not however, be interpreted that the land is necessarily free of contamination.

5.7 Water

- 5.7.1 The Water Framework Directive (WFD) is a European directive that imposes legal requirements to protect and improve the water environment (including rivers, coasts, estuaries, lakes, ground waters and canals). Physical works can modify the size and shape of a watercourse, reduce or increase the flow of water, introduce artificial materials or remove sediment and/or vegetation.
- 5.7.2 There are three watercourses in Lewisham designated under the WFD, the Rivers Pool, Quaggy and Ravensbourne. A programme of measures is being developed to improve the ecological status of these to 'good' by 2027, as required by the directive.
- 5.7.3 The only watercourse in the borough currently designated under the chemical General Quality Assessment (GQA) is the section of the River Ravensbourne between the River Pool and the Tideway.

New chemical GQA calculations have been introduced under which biological oxygen demand has been removed as one of the parameters. This means the calculation is now based on ammonia and dissolved oxygen levels to grade each river reach. Using this method, the chemical quality has consistently been found to be very good, having achieved a grade 'A' every year between 2000 and 2009.

- 5.7.4 The River Quaggy and River Ravensbourne merge in Lewisham town centre, and these rivers have quite similar catchments. Unusually, there are no major point sources of pollution in these urban rivers and water quality issues (principally related to nutrients) arise from diffuse urban sources such as road runoff and missed connections, where domestic sewerage is wrongly connected to pipes intended for surface water runoff. As a result, water quality is very variable and can be good during periods of dry weather.

5.8 Preparation for Flooding

- 5.8.1 Under the Flood Risk Regulations 2009, Lewisham was required to carry out a Preliminary Flood Risk Assessment (PFRA) This is a high level screening exercise to identify areas of significant flood risk within a given study area. The flooding could be caused by surface water, groundwater, ordinary water courses or canals.
- 5.8.2 The communities to the north of the borough are at risk of tidal flooding from the River Thames estuary, particularly Evelyn and New Cross wards. This land resides within Flood Zones 2 and 3, where Flood Zone 2 represents a 1 in 1000 annual chance of flooding and Flood Zone 3 represents a 1 in 100 annual chance of flooding. Other areas include the land around the Ravensbourne, Pool and Craggy Rivers.
- 5.8.3 In Lewisham, there are approximately 21,000 properties at risk of flooding from river and tidal sources, which equates to 16% of all properties in The Borough.
- 5.8.4 There is a high future risk of flooding from local sources in parts of Lewisham, particularly from surface water. It is estimated that approximately 11,000 properties are potentially at risk from flooding during a rainfall event with a 1 in 30 annual chance of it occurring.
- 5.8.5 As required by the Flood and Water Management Act 2010, Lewisham has produced a Surface Water Management Plan (SWMP). A SWMP is a plan which outlines the preferred surface water management strategy in each location. In this context, surface water flooding describes flooding from sewers, drains,

groundwater, and runoff from land, small watercourses and ditches that occurs because of heavy rainfall.

5.9 Cultural heritage, landscape and townscape

5.9.1 There are several designated buildings and sites within the Borough, the number of which are shown below

Designation	No.
Conservation Area	28
Listed buildings	540 (approx.)
Grade I buildings	2
Grade II* buildings	35
Register of Historic Parks & Gardens	2
World Heritage Site 'Buffer Zone'	1
Register of Historic Parks & Gardens	2

Table 7: Number of designated sites and buildings

5.9.2 Several Archaeological Priority Areas (APAs), comprising either known or potential archaeological areas, have been identified in The Borough. These include Bell Green, Deptford Creek and the Thames Alluvial Floodplain.

5.9.3 A World Heritage Site 'Buffer Zone' has been declared for Blackheath to provide an area of special policy consideration for developments that may be visible from within the World Heritage site at Lewisham.

5.9.4 Lewisham borough is predominantly residential in nature, characterised by low density suburbs of houses with gardens and high density neighbourhoods, some comprising small Victorian and Edwardian terraces and others with high-rise flats. Interspersed amongst these areas of housing are town centres, shopping parades, parks and green spaces. Most of the industrial and commercial areas are sited to the north of The Borough.

5.9.5 Lewisham's landscape is a gentle bowl, focussed around the Ravensbourne, Quaggy and Pool Rivers which flow into the Deptford Creek. Elevated views play a significant role in the character of the borough, both within the borough, but also with views towards the city. The urban grid form is most likely to be rectilinear or clearly planned in the flatter, central areas of The

Borough and looser and more organic in the hillier areas at The Borough edges.

5.9.6 Implementation of the LIP should have a positive impact on the townscape in The London Borough of Lewisham.

5.10 Noise

5.10.1 The main issues relating to noise are the current patterns of problems relating to road traffic.

5.10.2 It is not foreseen that the LIP will have any significant impact on noise in the Borough.

5.11 Accessibility

5.11.1 PTALs (public transport access levels) quantify relative connectivity to the public transport network for any location in London. The term 'connectivity to the network' indicates that the PTAL measure focuses on the proximity to public transport services, and not on where these services take people to or indeed how accessible they are to all members of the population.

5.11.2 PTAL values are on a scale from 1a to 6b, with 6b representing the highest connectivity level.

5.11.3 There are three areas within the Borough where public transport access is high, though for most the Borough, accessibility is lower.

5.11.4 Improved public transport accessibility increases access to employment opportunities. One measure that can be used to quantify the development of the transport networks in terms of the support that they give to London's economy is the number of jobs (whether filled or currently vacant) that are potentially available within a given travel time from a particular residential location. The basis for assessing this is a travel time contour of 45 minutes by the principal public transport modes, expressed as an aggregate measure across Greater London.

5.11.5 Data produced by TfL has identified that most Lewisham has access to less than 250,000 jobs, within a 45-minute journey from their homes.

5.11.6 Implementation of the LIP should have a significant positive impact on accessibility in the Borough.

5.12 Congestion

5.12.1 The Department for Transport have carried traffic counts, which enables traffic volume to be determined, which then can be used comparatively against, Inner, Outer, Central and Greater London average traffic volumes.

- 5.12.2 Lewisham is an Inner London borough. In 2016, the volume of motor vehicles recorded in the Borough was equivalent to the average volume of motor vehicles recorded in Central London and lower than the average volume of motor vehicles recorded in Outer, Inner and Greater London
- 5.12.3 A travel modal shift from the private car to sustainable travel modes can reduce traffic congestion and air pollution in urban areas. Research carried out by TfL in 2017 into understanding how Londoners wish to travel in the capital, identified that Lewisham has an active, efficient and sustainable mode share (cycling, walking and public transport) of approximately 68%.
- 5.12.4 Implementation of the LIP should have a significant positive impact on congestion in the London Borough of Lewisham.

5.13 Road safety

- 5.13.1 The Borough is committed to reducing the number of people killed or seriously injured (KSI) because of road traffic collisions.
- 5.13.2 Collision rates produced by TfL in 2016 indicated that Lewisham had the twelfth highest collision rate for all road classes in London of all Boroughs (excluding City of London).
- 5.13.3 The Mayor of London has set out wide-ranging plans that will transform the capital's streets, public places and deliver future growth. Proposals in the strategy include delivering a 'Vision Zero' approach in London to make its streets safer for all, where Vision Zero aspires to a time where there will be no KSI's on London's roads.
- 5.13.4 Implementation of the LIP should have a significant positive impact on road safety in the Borough.

5.14 SEA Objectives

- 5.14.1 The state of the environment can be influenced through the implementation of the LIP. However, not all environmental areas or SEA factors will be influenced to the same degree.
- 5.14.2 The significance of environmental impacts (positive or negative) because of the LIP on SEA environmental topics is detailed in Table 9 in Chapter 7.
- 5.14.3 SEA objectives for Lewisham's transport strategy have been developed in tandem with the development of Lewisham's transport objectives and the baseline for SEA topics.
- 5.14.4 Table 8 outlines SEA objectives against SEA topics and key relevant LIP policies. SEA objectives have been set for all SEA topics to ensure a thorough scoping exercise. The Council will take a reasonable approach towards monitoring and prioritise

those indicators/targets that are associated with those SEA topics that have been identified to have likely significant environmental effects due to the implementation of the LIP. SEA

SEA Topic	SEA Objective	Key relevant LIP policies
Biodiversity, flora and fauna	Reduce negative impact of the transport network on biodiversity, flora and fauna Increase the number of trees on the highway	3
Population and human health	Create conditions to improve health and reduce health inequalities	1, 3
Air Quality	Reduce emissions emanating from ground-based transport	1, 3
Climate change	Reduce CO ₂ emissions emanating from ground-based transport	3
Soils and contaminated land	Minimise soil contamination through land-based transport	1, 4
Water	Minimise ground water contamination through land-based transport	1, 4
Preparation for flooding	Improve surface water drainage	1, 4
Cultural heritage, landscape and townscape	Protect and enhance the natural and historic environment and quality and character of Lewisham	1, 4
Noise	Reduce noise and vibrations from ground based transport	1, 2, 4
Accessibility	Ensure all residents have access to public transport Ensure footpaths are maintained and easy to navigate by all users	1, 2, 4

Congestion	Reduce levels of ground based transport, mainly private cars, HGVs	1, 2, 4
Road safety	Improve road safety by reducing casualties of all road users in Lewisham	2, 4

Table 8: SEA objectives, topics and relevant LIP policies

6. CONSULTATION RESPONSE

6.1 Summary of comments from environmental bodies

- 6.1.1 Consultation is an integral part of both the LIP and SEA process. The SEA Directive and Regulations required the Responsible Authority to consult with Environmental Bodies on the scoping Report. Responses to the consultation have been used to refine the LIP and this Environmental Report. The Environmental Bodies consulted and summaries of their responses are noted below:
- 6.1.2 **Natural England:** No comments. Natural England are satisfied with the scope and contents of the proposed SEA (10th October 2018, correspondence from Sharon Jenkin, Consultations Team, Natural England).
- 6.1.3 **Environment Agency:** The environment agency sent a generic checklist regarding the Scoping report on 15 October 2018. As part of the Strategic Environmental Assessment (SEA), the Environment Agency would like the SEA to consider the likely effects on the environment including on:
- Climatic factors e.g. climate change
 - Air quality and human health
 - Water and soil
 - Biodiversity, flora and fauna
 - Material assets e.g. sustainable use of resources and waste
- 6.1.4 **Historic England** (formerly English Heritage): A response was not received from Historic England within the five weeks' consultation period.

6.2 Response

- 6.2.1 Natural England – no response required
- 6.2.2 Environment Agency – Table 9 of this ER does consider the likely effects on the environmental factors [as set out in their list reproduced in 6.1.3]
- 6.2.3 Historic England – no response required

7. ENVIRONMENTAL EFFECTS ASSESSMENT

7.1 Identification and analysis of environmental problems

7.1.1 The SEA Directive requires that environmental problems are identified and analysed in the Environment Report. In this chapter both environmental problems and opportunities have been identified, considering the baseline exercise and the draft LIP. The table also identifies where the LIP is deemed to have significant effects (positive or negative) on the SEA topics.

SEA Topic	Problems	Opportunities – LIP improving or mitigating problem	Likely effects
Biodiversity, flora and fauna	Loss of trees	The LIP provides safety and environmental schemes providing opportunities for tree planting	Insignificant – positive
	Loss/degradation of railway line (green links?) ecosystems	The LIP strongly supports rail travel as a sustainable form of public transport and the environmentally sensitive management of railway land	Insignificant – neutral or positive
	Transport related impacts on biodiversity	The LIP prioritises walking, cycling and public transport over motorised road traffic, setting targets to reduce road traffic and reduction in CO2 and AQ emissions from land based transport	Insignificant – positive
Population and human health	Road safety: road traffic casualties	The LIP sets targets to reduce road traffic casualties. The LIP includes safety and environmental schemes aimed at improving road safety, in particular	Significant – positive

		for pedestrians and cyclists and those with mobility impairments.	
	Accessibility: exclusion of people with mobility impairment or those living in deprived areas	The LIP includes personal mobility schemes and safety and environmental schemes in areas of high deprivation	
	Community severance: high road traffic volume, HGV volume, transport related infrastructure	The LIP includes targets for reducing traffic volumes and car ownership.	Significant - positive
	Security: crime and fear of crime	The LIP will include safety and environmental enhancement schemes creating a more secure transport network and reducing the opportunity for crime	Significant - positive
	Unemployment: people not being able to access employment because of lack of access to transport	The LIP included policies and proposals to make travel in Lewisham fairer	Significant - positive
	Social exclusion: people or communities not being able to access services because of lack of access to transport	The LIP includes policies and proposals to make travel in Lewisham fairer and to reduce barriers to exclusion	Significant - positive
	Deprivation - people or communities not being able to access work or services because of a lack of access to transport	The LIP includes policies and proposals to make travel in Lewisham fairer and to reduce barriers to exclusion	Significant - positive

	<p>Noise and vibration: increasing traffic volume, increase in heavy goods vehicles. Poor condition of material assets such as road</p> <p>Physical fitness, mental health and quality of life: significant increase in obesity rates</p>	<p>The LIP includes approaches to reduce the impact of heavy goods vehicles and safety and environmental schemes</p> <p>The LIP prioritises walking and cycling including school and work travel planning, cycle training and has targets for reducing traffic and car ownership</p>	<p>Significant - positive</p> <p>Significant positive</p>
Air Quality	<p>Reduced air quality: increasing road traffic volume congestion, CO₂, NO₂ and particulates</p>	<p>The LIP prioritises sustainable modes of travel and has targets to reduce traffic and car ownership</p> <p>The LIP has targets to reduce CO₂ and other pollutants</p>	<p>Significant - positive</p>
Climate change	<p>Extreme weather conditions: increasing risk of flooding, disruption to the transport network, deterioration of road network</p>	<p>The LIP promotes the use of sustainable and environmentally friendly materials and construction techniques. The LIP monitors and improves principal road condition</p>	<p>Significant - positive</p>
Soils and contaminated land	<p>Contamination through land- based transport</p>	<p>The LIP promotes the use of sustainable and environmentally friendly materials and construction techniques.</p>	<p>Significant - positive</p>
Water	<p>Ground water contamination through land- based transport</p>	<p>The LIP promotes the use of sustainable and environmentally</p>	<p>Insignificant - positive</p>

		friendly materials and construction techniques.	
Preparation for flooding	Surface water flooding: insufficient drainage capacity for runoff from hard surfacing.	The LIP supports sustainable urban drainage techniques and build these into schemes where feasible	Insignificant - positive
Cultural heritage, landscape and townscape	Reduced air quality: pollution damage to buildings	The LIP includes safety and environmental schemes. Increasing walking and cycling contributes to creating more attractive streets and town centres	Insignificant - positive
	Visual pollution: impact of transport infrastructure	The LIP includes policies and targets aimed at improving the urban realm around key transport interchanges reducing their visual impact	
Noise	Noise and vibration: increase in traffic volume, increase in heavy goods vehicles. Poor condition of material assets such as road	The LIP has targets for reducing traffic and car ownership. The LIP monitors and improves principal road condition	Significant - positive
Accessibility	Access to public transport: lack of access to public transport leading to unemployment, social exclusion, deprivation	The LIP includes personal mobility schemes and safety and environmental schemes in areas of high deprivation	Significant - positive
	Condition of material assets: poor condition of footways, bus stops impacting accessibility of mobility impaired	The LIP monitors and improves principal road condition	

	groups, people with push chairs, etc.		
Congestion	Air pollution	The LIP has targets to reduce CO2 and other pollutants	Significant - positive
	Increase in noise and vibrations	The LIP has targets for reducing traffic and car ownership.	
Road safety	Road traffic casualties	The LIP sets targets to reduce road traffic casualties.	Significant - positive

Table 9: Problems, opportunities and likely effects

7.2 Risk and uncertainty

7.2.1 Some of the topics are influence by problems and opportunities that originated from outside the borough. This brings uncertainty, risk and difficulty in quantifying the effects the LIP has on the particular SEA factor. This Environmental Report will consider these issues in more detail where appropriate.

8. ASSESSMENT OF PROPOSED MEASURES

8.1 Assessment of environmental effects

- 8.1.1 The SEA Directive and Regulations require that the Council assesses the environmental effects of Lewisham's Third LIP. This section first assesses the relationship between Lewisham's LIP3 objectives and the SEA objectives. It then continues to assess Lewisham's transport interventions for delivering the objectives. Alternatives and the 'do nothing' option are also assessed.
- 8.1.2 Table 10 assesses the relationship between Lewisham's LIP3 objectives and the SEA objectives. X indicates a positive relationship between SEA objective and LIP objective. A blank space indicates there is no clear relationship.

8.2 Identifying alternatives

- 8.2.1 A necessary part of the SEA scoping process is to look at alternative methods of achieving the objects of the Transport Plan for Lewisham.
- 8.2.2 Table 11 sets out the type of interventions that will be contained in the plan and suggested alternatives. These are then scored (p = positive impact, pp= very positive, 0 = neutral impact, n = negative impact and nn = very negative). Some of the interventions may change later when the plan is finalised.

		LIP Transport Objectives			
LIP SEA objectives		Travel by sustainable modes will be the most pleasant, reliable and attractive option for those travelling to, from and within Lewisham.	Lewisham's streets will be safe, secure and accessible to all.	Lewisham's streets will be healthy, clean and green with less motor traffic.	Lewisham's transport network will support new development whilst providing for existing demand.
	Reduce negative impact of the transport network on biodiversity, flora and fauna	X		x	
	Increase the number of trees on the highway	x		x	X
	Create conditions to improve health and reduce health inequalities	x	x	x	X
	Reduce emissions emanating from ground-based transport	x		x	X
	Reduce CO ₂ emissions emanating from ground-based transport	x		x	X
	Minimise soil contamination through land-based transport	x		x	X
	Improve surface water drainage		x	x	

Protect and enhance the natural and historic environment and quality and character of Lewisham		x		X	
Reduce noise and vibrations from ground based transport				x	X
Ensure all residents have access to public transport	x		x	X	X
Ensure footpaths are maintained and easy to navigate by all users	x		x	x	
Reduce levels of ground based transport, mainly private cars, HGVs				X	
Improve road safety by reducing casualties of all road users in Lewisham			x		

Table 10: Relationship between Lewisham's LIP3 objectives and the SEA objectives

	SEA Topics											
	Biodiversity, flora and fauna	Population and human health	Air quality	Climate change	Soils and contaminated land	Water	Preparation for flooding	Cultural heritage, landscape	Noise	Accessibility	Congestion	Road safety
1. Travel by sustainable modes will be the most pleasant, reliable and attractive option for those travelling to, from and within Lewisham												
Improved network of cycling and walking routes with links to town centres and improved east-west connections	0	p	p	0	0	0	0	p	0	P	n/p	0
Reduced ownership and use of private motor vehicles	0	0	p	0	0	0	0	p	p	n/p	p	p
Improved public transport links to the south, including the delivery of the Bakerloo Line Extension	0	p	p	0	0	0	0	p	p	p	p	p
Creation of new orbital public transport connections and improved interchange	0	p	p	0	0	0	0	p	p	p	p	p
Alternatives												
Encourage car ownership	0	n	n	n	0	0	0	0	n	0	n	n

Route maintenance	0	p	p	0	0	0	0	p	p	p	0	0
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0
2. Lewisham's streets will be safe, secure and accessible to all												
Improved safety and security will increase social inclusion and encourage walking and cycling	0	p	p	0	0	0	0	p	p	p	p	0
100% of all feasible bus stops will be brought to TfL accessible standards	0	0	0	0	0	0	0	0	0	0	p	0
Increase number of step-free rail station	0	0	0	0	0	0	0	0	0	p	p	0
Eliminate fatal and serious collisions on Lewisham's roads	0	p	0	0	0	0	0	0	0	0	0	p
Alternatives												
Prioritise capacity over accessibility	0	n	0	0	0	0	0	0	0	n	0	n
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0
3. Lewisham's streets will be healthy, clean and green with less motor traffic												
Reduce air pollution from road traffic	p	p	p	0	0	0	0	0	0	0	0	0
Encourage switch to electric vehicle use and reduce car ownership in absolute terms	0	p	p	0	0	0	0	0	0	0	0	p

Reduce traffic levels, congestion and vehicle idling and encourage active travel	0	p	p	0	0	0	0	p	p	n/p	p	p
More street trees to promote carbon capture	p	p	p	0	0	0	0	p	0	0	0	0
Alternatives												
Prioritise streets for single occupancy car trips	0	n	n	n	0	0	0	n	n	0	n	n
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0
4. Lewisham's transport network will support new development whilst providing for existing demand												
Walking, cycling and public transport will be prioritised in new developments as the best options	0	p	p	0	0	0	0	p	p	n/p	p	p
Work with TfL and Network Rail to increase public transport capacity in the Borough, to support growth	0	p	p	0	0	0	0	p	p	p	P	p
Alternatives												
No car free developments		0n	n	n	0	0	0	0	n	0	n	n

Prioritise new development only	0	n	0	0	0	0	0	0	0	0	n	n	0
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 11: Consideration of LIP3 transport policies and alternatives

9. MONITORING

9.1 The Purpose of Monitoring

9.1.1 Under the SEA Directive there is a statutory requirement to monitor the environmental impacts of the implementation of the Plan. The LIP must therefore be monitored and reported to comply with the Directive as well as to continue to identify problems and issues that need resolving.

9.1.2 Monitoring is the systematic measurement of a parameter in terms of magnitude, time and space. Monitoring is not limited to quantitative or technological measurements, and may include qualitative issues such as human health or landscape quality.

9.1.3 Monitoring can be used to answer questions such as:

- Is the plan contributing to the desired environmental objectives and targets?
- Is the plan performing as well as expected?
- Are (mitigating) measures performing as well as expected?
- Are there any and undesirable environmental effects? Are these within acceptable limits, or is remedial action required?

9.1.4 This process is beneficial to the Local Implementation plan because it allows any significant environmental effects of the plan's implementation to be identified and dealt with early in the planning process. It allows the actual effects of the plan to be tested against those predicted in the SEA, and can provide baseline information for future plans.

9.2 Monitoring for the SEA

9.2.1 To develop a monitoring strategy, the guidance suggests addressing the following questions:

- Determine what needs to be monitored;
- Identify what sort of information is required;
- Identify existing sources of monitoring information;
- Identify and fill any gaps in existing information;
- Determine when remedial action would be required and which actions could be taken; and
- Develop a management plan outlining responsibilities, timeframes and presentation.

9.2.2 Monitoring should focus on any significant environmental impacts that give rise to irreversible impacts upon environmental attributes in the area. This SEA found very little evidence of significant

environmental impacts because of measures within Lewisham's Third Local Implementation Plan. Where adverse impacts have been found, mitigation measures were presented to minimise these impacts, therefore no change to the plan was advised in the Environmental Report. Thus, given the lack of significant impact on the environment that the plan entails, no monitoring for the SEA is necessarily required.

- 9.2.3 When monitoring reveals that remedial action is required, the appropriate measures are enacted. Criteria or thresholds will therefore need to be established as part of the strategy, which can trigger action if they are exceeded. As and when gaps appear in data sets, new data will be collected. However, it should be noted that no primary data collection is necessarily appropriate for this level of monitoring, and is not required for compliance with the Directive.

9.3 LIP Monitoring

- 9.3.1 The boroughs annual reporting is an effective and efficient way to demonstrate the scale of delivery of key outputs through the LIP investment process. This section of the LIP sets out the indicators and targets to be used to assess progress against delivery of LIP objectives and MTS outcomes; it is this that will determine the success or otherwise of the LIP.

10. NEXT STEPS

10.1 Consultation on Draft LIP3 and SEA

10.1.1 The SEA Regulations set specific requirements for consultation with the statutory consultees, the public and other interested parties and require that the ER is made available for consultation alongside the Consultation Draft LIP.

10.1.2 The LIP is required to be submitted to TfL by 02 November 2018 and for wider public consultation in shortly after. The ER will be available on the Council's website (www.lewisham.gov.uk)

10.1.3 If you would like any further information or if you have any comments on the SEA of the LIP3 we would be grateful to receive them. Comments should be made via post or e-mail, details on the Council's website.

10.2 SEA Statement

10.2.1 When the LIP3 is adopted it will be accompanied by an SEA Statement. In line with the SEA Regulations, the SEA Statement will provide the following information:

- How environmental considerations have been integrated into the plan;
- How the ER has been considered in the LIP3's development;
- How opinions expressed in relation to the consultations on the LIP and ER have been considered;
- The reasons for choosing the LIP3 as adopted, in the light of the other reasonable alternatives dealt with; and
- The measures to be taken to monitor any possible significant environmental effects of the implementation of the LIP3.

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