



Local Implementation Plan 3

Strategic Environmental Assessment

Environmental Report

London Borough of Havering

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- 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;

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



CONTENTS PAGE

PAGE NO.

QUALITY	III
1. NON-TECHNICAL SUMMARY	3
1.1 Introduction	3
1.2 What is the Havering Third Local Implementation Plan	3
1.3 What is a Strategic Environmental Assessment	4
1.4 Coverage of the Environmental Report	4
1.5 Environmental Context and baseline	5
1.6 SEA Framework	5
1.7 Consideration of Alternatives for the LIP	6
1.8 Mitigation	6
1.9 Monitoring	6
2. INTRODUCTION	7
2.1 Background	7
2.2 The SEA and the regulations	7
2.3 Scope of the SEA	7
2.4 Third Havering LIP	8
3. SEA METHODOLOGY	15
3.1 SEA Process	15
3.2 SEA and LIP relationship	16
4. REVIEW OF RELEVANT POLICIES	17
4.1 Mayor's Transport Strategy	17
4.2 National, London and local policies	19
5. ENVIRONMENTAL BASELINE	21
5.1 Havering's local context	21
5.2 Biodiversity, flora and fauna	21
5.3 Population and human health	22
5.4 Air quality	23

5.5	Climate change	24
5.6	Soils and contaminated land	24
5.7	Water	25
5.8	Preparation for Flooding	26
5.9	Cultural Heritage, Landscape and Townscape	28
5.10	Noise	29
5.11	Accessibility	29
5.12	Congestion	30
5.13	Road Safety	30
5.14	SEA Objectives	31
6.	CONSULTATION RESPONSE	33
6.1	Summary of comments from environmental bodies	33
6.2	Response	34
7.	ENVIRONMENTAL EFFECTS ASSESSMENT	35
7.1	Identification and analysis of environmental problems	35
7.2	Risk and uncertainty	39
8.	ASSESSMENT OF PROPOSED MEASURES	40
8.1	Assessment of environmental effects	40
8.2	Identifying alternatives	42
9.	MONITORING	48
9.1	The Purpose of Monitoring	48
9.2	Monitoring for the SEA	48
9.3	LIP Monitoring	49
10.	NEXT STEPS	50
10.1	Consultation on Draft LIP3 and SEA	50
10.2	SEA Statement	50

1. NON-TECHNICAL SUMMARY

1.1 Introduction

- 1.1.1 Under the Strategic Environmental Assessment (SEA) Directive 2001/42/EC, the London Borough of Havering 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 Havering 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 Havering 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 Havering 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 Havering.

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 Havering 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 Havering'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, Havering'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 Havering 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 Havering LIP.
- 1.6.2 The SEA Directive does not specifically require the use of objectives or indicators in the SEA, but objectives can usefully 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 Havering

- 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 Havering

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 Havering 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 Havering LIP. The Havering 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 Havering.
- 2.1.2 Havering, 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 Havering 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 Havering. The SEA covers the same period as the LIP which sets out how the council will deliver the Mayor's Transport Strategy locally up to 2041. 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 Havering LIP

2.4.1 The Third LIP sets out Havering'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 Havering 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 Havering is 65% of all trips to be made on foot, by cycle or using public transport by 2041 in the borough, compared to the 45% observed in 2016/17.

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

- To improve north south transport connectivity in Havering through provision of alternative travel choices to the private vehicle.
- To ensure sustainable access to Havering's employment areas including the Romford and Rainham and Beam Park Strategic development areas.
- Enable healthier lifestyles through the provision of active and sustainable travel choices to residents and visitors in Havering and to make Havering a better place to walk and cycle around.
- Work with partners to deliver fully accessible transport links to ensure that residents and visitors with disabilities have the freedom to choose how to travel in the borough.
- Ensure that the needs of the less mobile are prioritised when delivering public realm improvements and "better streets".
- To deliver "Visions Zero" in Havering by 2041 through reducing casualties of all road users on borough roads, especially in the vicinity of schools and KSI "hotspots"
- Improve Air Quality in Havering by delivering transport and regeneration programmes that contribute to reducing CO₂, PM₁₀ and NO_x emissions and that support Havering's adopted Air Quality Action Plan.
- To reduce the fear of crime and antisocial behaviour and improve perception of personal safety and security to encourage residents to travel actively.
- Through the Healthy Streets agenda, enhance and maintain the quality of public realm in our Major, Minor and District centres to create high quality safe neighbourhoods that people want to live and travel within.
- To strengthen strategic links with neighbouring local authorities in Essex and the wider South East on strategic transport issues to support sub regional growth including the A127 growth Corridor.

- To bring and maintain all infrastructure assets to good state of repair within Havering.

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

Three year indicative programme of investment for the period 2019/20 to 2021/22

The table summarises, at a programme level, the borough’s proposals for the use of TfL borough funding in the period 2019/20 – 2021/22.

Three year indicative programme of investment for the period 2019/20 to 2021/22			
The table summarises, at a programme level, the borough’s proposals for the use of TfL borough funding in the period 2019/20 – 2021/22.			
<i>MTS Theme A good public transport experience</i>			
Improving the public transport experience			
Improving the reliability of public transport - Review of "pinch points" across the borough bus network and delivery of measures that support better journey time reliability on selected bus routes.	80k	50k	50k
Bus Stop Accessibility Programme - Bringing LBH's bus stops up to the Mayoral accessibility standard. Borough wide BSA level currently at 96%, further delivery in years two and three of Programme of Investment will bring a further 2% of stops up to the accessibility standard taking borough wide BSA level to 98%.		50k	50k
Sub-total	£80k	£100k	£100
<i>MTS Theme Healthy Streets and Healthy People</i>			
Delivery of Vision Zero			
Casualty Reduction Package - Delivery of casualty reduction measures at KSI accident "hotspots" (as evidenced by KSI data) and	828k	700k	700k

measures to improve safety. Measures delivered will be based on outcome of accident analysis and feasibility studies the previous year.

Road Safety Education Training and Publicity - Delivery of an Education training and publicity programme across the borough both in schools and to the wider public. Includes annual Safe Drive Stay Alive event, in car seat safety checks, and Theatre in Education productions.	90k	90k	90k
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Active, inclusive and safe travel

Delivery of School Travel Planning and Business Engagement activities across the borough to encourage Smarter Travel.	185k	185k	185k
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School Travel Planning Implementation - Delivery of measures identified within a School Travel Plan review by schools, to encourage pupil/parents to travel to school by sustainable means.	155k	155k	155k
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Borough wide accessibility improvements - Review of pedestrian alleyways access and at entrances into parks and through open spaces to ensure they are suitable for all users.	20k	50k	50k
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Borough wide Cycle Training - Delivery of Bikeability training in schools across the borough as well as adult and family training.	60k	60k	60k
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Borough wide signage review - Review of cycle signage, wayfinding and ASLs across the borough to ensure infrastructure is safe on the highway and adequately maintained.		30k	30k
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Healthy Streets

Healthy Streets Review - "Reconnecting Neighbourhoods". Delivery of outcomes of Healthy Streets review that took place in	50k	50k	50k
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2018/19 looking at improving sustainable access from Mawney Road into Romford town centre.

Implementation of LBH Air Quality Action Plan - Delivery of Air Quality Action Plan measures that contribute to reducing NOx, and PM10 emissions across the borough.

125k 125k 125k

Greening the Romford Ring Road - Review eastern side of the Ring Road and deliver measures that promote Healthy Streets indicators including *shade and shelter, places to stop and rest* and where *people feel relaxed*. Package will support complement Romford Liveable Neighbourhoods project.

50k 100k 100k

<i>MTS Theme New Homes and Jobs</i>			
Unlocking Growth			
Improving connectivity to/from and within the Romford and Rainham and Beam Park Housing Zones through the A1306 Beam Parkway Major Scheme and Romford Liveable Neighbourhoods programme (match funding commitments)	275k	275k	275k
Sub-total	£275k	£275k	£275k
Total	£1918k	£1920k	£1920k

Table 1: Havering’s LIP3 delivery plan

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	81	2014/15 to 2016/17	84	2021	89	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	30	2016	43	2021	96	2041
Outcome 2: Vision Zero – deaths and serious injuries from all road collisions to be eliminated from our streets	121	2016	57	2021	0	2041
Outcome 3a: Reduce the volume of traffic in London	848	2016	836	2021	669	2041 (-20%)
Outcome 3b: London's streets will be used more efficiently and have less traffic on them	18,502	2017/18	18958	2021	17842	2026
Outcome 3c: Reduce car ownership in London	46252	2016	41400	2021	36000	2041
Outcome 4a: Reduced CO2 emissions	157500	2013	138200	2021	39900	2041
Outcome 4b: Reduced NOx emissions	630	2013	220	2021	30	2041
Outcome 4c: Reduced particulate emissions (PM10)	56	2013	45	2021	28	2041

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Outcome 6: Everyone will be able to travel spontaneously and independently	Observed 2015 Average journey time using full network (minutes)				Trajectory 2041 Average journey time using step-free network (minutes)	Trajectory 2041 Time difference (minutes)
	64					4

Table 2: TfL targets and outcomes for Havering

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: Stages of the SEA process

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 Havering 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 LIP3 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 Havering 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;
3	London's streets will be used more efficiently and have less traffic on them;
5	The public transport network will meet the needs of a growing London;
7	Journeys by public transport will be pleasant, fast and reliable;
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 [and European] documents have been considered in the preparation of the LIP3.

- National Planning Policy Framework (2012);
- UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations (2017);
- The Climate Change Act (2008);
- UK Post-2010 Biodiversity Framework (2012);
- Equality Act (2010);
- Air Transport White Paper (2010);
- Historic England Three Year Corporate Plan 2018 – 2021 (2018).
- Listed Buildings and Conservation Areas Act 1990
- Ancient Monuments and Archaeological Areas Act 1979
- Manual for Street (DoT)
- The Convention for the Protection of the Architectural Heritage of Europe
- The European Convention on the protection of Archaeological Heritage

4.2.3 The following Greater London documents have been reviewed:

- The London Plan (2016);
- Mayor of London's Vision Zero Action Plan (2018);
- London Environment Strategy (2018);
- The London Plan Habitat Targets (2017);
- Mayor of London's Health Inequalities Strategy (2017);
- Mayor of London's Draft Economic Development Strategy for London (2017);
- Mayor of London's Climate Change Mitigation and Energy Strategy (2015);
- Mayor of London's Vision for Cycling in London (2013);
- Mayor of London's Water Strategy (2011);
- Better Health, Better Environment- a GLA Guide for London Borough's (2013);
- Street for All (Historic England May 2018)
- Healthy Streets for London (Transport for London)

4.2.4 Havering's policy and legislative context includes:

- Demographic & Diversity Profile of Havering's Population (2015)
- Havering Climate Change Action Plan (2014-2017)
- Havering Conservation Management Action Plans
- Havering Contaminated Land Inspection Strategy (2016)
- Havering Core Strategy & Development Control Policies Development Plan Document (2008)
- Havering Corporate Plan (2017-2018)
- Havering Draft Air Quality Action Plan (2018-2023)
- Havering Flooding (2016)
- Havering Green Belt Sites & Locations
- Havering Health & Wellbeing Strategy (2015-2019)
- Havering Heritage Supplementary Planning Guidance (2011)
- Havering Landscaping Supplementary Planning Guidance (2011)
- Havering 2nd Local Implementation Plan
- Havering Local Flood Risk Management Strategy (2017)
- Havering Nature Conservation & Biodiversity Strategy
- Havering Protecting & Enhancing the Borough's Biodiversity Supplementary Planning Document (2009)
- Havering Strategic Flood Risk Assessment Update (2016)
- Sustainability Appraisal for the Havering Local Plan (2017)

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

5. ENVIRONMENTAL BASELINE

5.1 Havering's local context

- 5.1.1 The LIP, including the SEA, is limited to the geographical area that is the London Borough of Havering, which is an outer London borough in North East London, situated just 13 miles from the City of London.
- 5.1.2 The London Borough of Havering is divided into a total of eighteen wards, and with a land area of 43.35km² it is the third largest of the 32 London Boroughs by area. Located on the London/Essex border, the borough is adjoined by the London Boroughs of Redbridge and Barking and Dagenham to the west, Epping Forest to the north, Bexley to the south beyond the river Thames and by the Essex Districts of Thurrock and Brentwood to the east.
- 5.1.3 Havering is one of London's greenest boroughs with extensive open spaces and more than half of the borough designated as Metropolitan Green Belt (Havering Local Plan 2016-2031).
- 5.1.4 Havering has strong east-west road and rail connections into central London and the M25 runs north-south along most of the eastern boundary. However current transport infrastructure does not facilitate north-south movement within the borough.
- 5.1.5 Havering's population numbered 238,281 in 2011 and was 2.89% of London's total population (8.2 million). It is expected to rise to 276,400 by 2023 (Office for National Statistics).

5.2 Biodiversity, flora and fauna

- 5.2.1 Havering is rich in natural assets which include:
- 420 hectares of forest cover,
 - Three Sites of Special Scientific Interest (SSSI),
 - Seven Local Nature Reserves
 - 89 sites of Importance for Nature Conservation.
 - Green Belt land covering over half the borough, constituting protected countryside and parkland and the largest number of ponds and lakes of all London Boroughs.
- 5.2.2 The three SSSIs in Havering are:
- Ingrebourne Marshes: largest and most diverse freshwater marshland in Greater London
 - Inner Thames Marshes: the largest remaining expanse of wetland in Greater London.

- Hornchurch Cutting: a geological SSSI with glacial deposits containing Jurassic-age rocks and fossils.
- 5.2.3 The seven Local Nature Reserves are Rainham Marshes, Bedfords Park, The Chase, The Manor, Ingrebourne Marshes, Cranham Brickfields and Cranham Marsh.
- 5.2.4 There are several nationally protected and priority species in the borough. These include brown owl, bats, great crested newt, water vole, badgers, harvest mouse, brown hare and various other animals, reptiles, amphibians and wild plants.
- 5.2.5 Seven wildlife corridors run through the borough. These are:
- from the Inner Thames Marshes SSSI, following the Common Sewer NE into Running Water Brook and Belhus Woods;
 - the Ingrebourne Valley from the Thames to Harold Wood, then up through Harold Hill via Paine’s and Carter’s Brook;
 - the stream valley from Berwicks Pond up to Cranham Marsh and then via Broadfields Farm, Cranham Brickfields, Tylers Commons and Maylands Golf Course to Dagnam Park;
 - from Dagnam Park via Bedfords Park to Havering Country Park and Hainault Forest;
 - Beam Valley and Dagenham Corridor, with a branch up through Harrow Lodge Park into Hornchurch;
 - from Bedfords Park south via Rise Park and Raphael Park and
 - the River Thames.
- 5.2.6 Three Countryside Conservation Areas in the borough are: Home Farm and Clay Tye Farm, Dagnam Park and North East Havering and Tomkyns Lane pastures and common land.
- 5.2.7 There are seventeen rivers that flow through the Borough, the largest of which are the rivers, Mardyke, Beam, Ingrebourne and River Thames at the southern borough boundary. The other rivers are Rom, Rainham Main Sewer, Wennington Branch Sewer, Rainham Creek, Haverings New Sewer, Carters Brook, Paines Brook, Weald Brook, Ravensbourne, Emerson Park Stream, Blacks Brook, Running Water Brook, West Mardyke and Puddledock Sewer.

5.3 Population and human health

- 1.1.1 Population Census data obtained in 2011 identified that the total population within the London Borough of Havering was 237,232. The population is currently estimated to be 259,600, and this is expected to increase to 276,400 by 2023.

- 1.1.2 At the time of the 2011 census, nearly 46% of the residents made up the working age group of 25-59 years. Going forward however, the over 65-years age group will see the largest growth from the 2011 baseline, with 23.8% increase by 2026, followed by the children and young people group (0 to 15 years), which is expected increase by 19.5% by 2031.
- 1.1.3 Havering is one of the least diverse London Boroughs. However, in the ten-year period between the 2001 census and the 2011 census, the BME group had more than doubled from 8% to 17% of Havering's population.
- 5.3.1 In terms of health, Havering needs to address the requirements of an increasingly ageing population, demands on extra care accommodation, and the need to create accessible environments and homes adapted to the exigencies of life which are equally important for households with very young children.
- 5.3.2 Queen's Hospital in Romford is the borough's principle Hospital, serving an ever-growing catchment and playing an increasingly significant role in the provision of care for Havering residents. Havering's Local Plan has identified access to local doctors and medical services as one of the main issues affecting quality of life in Havering with currently 52 GP practises covering a total of 256,731 patients.
- 5.3.3 The LIP contains proposals to 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. Havering will ensure the needs of the less mobile are prioritised when delivering public realm improvements, allowing these user groups the freedom to choose how they travel in the borough. These proposals are in line with the MTS and will have a positive impact on Havering's residents.

5.4 Air quality

- 5.4.1 Air pollution is associated with several adverse health impacts and is a contributing factor in the onset of heart disease and cancer.
- 5.4.2 Measurements taken in 2013 showed the clear majority of Havering fell well within national guidelines for nitrogen dioxide and particulate matter levels, however, long swathes of all four major roads in the borough (M25, A12, A13 and A127) were well in excess of the EU-set limit. These roads fall under the responsibility of Highways England (in the case of M25) and Transport for London (TfL). Due to these high levels of pollutants, the whole of Havering was designated as an Air Quality Management Area (AQMA) in 2006. The key transport routes of the M25, A12, A13 and A127 are major sources of motor vehicle tailpipe emissions which contribute to air pollution concentrations within the Borough.

- 5.4.3 Though the main source of air pollution in the Borough is ground-based vehicle emissions, significant amounts of pollutants are also generated from residential and commercial gas use, construction sites, the industrial estates in Hornchurch, Rainham and Romford and Havering Crematorium in Upminster.
- 5.4.4 Havering is part of the Mayor of London's Low Emission Zone (LEZ). The LEZ operates to encourage the most polluting heavy diesel vehicles driving in London to become cleaner.
- 5.4.5 Havering has this year adopted an Air Quality Action Plan (AQAP) for the years 2018-2023. The AQAP outlines the actions Havering Council will take to improve local air quality. The priority is to reduce key pollutants, Nitrogen Dioxide (NO₂) and Particulate Matter (PM₁₀) through actions that include:
- Action Policy 1: Air Quality Monitoring and Modelling
 - Action Policy 2: Public Health and Awareness Raising to encourage Smarter Travel
 - Action Policy 3: Reducing Emissions from Buildings and Developments
 - Action Policy 4: Reducing Emissions from Transport
- 5.4.6 There is an overlap between measures proposed for the LIP3 and those in the AQAP especially in the case of measures to encourage active travel, sustainable travel, increase the installation of greening measures and introduce local improvements to create healthy outdoor spaces and green infrastructure.

5.5 Climate change

- 5.5.1 Road 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 Many of the measures proposed in the LIP3 are aimed at improving modal split, and encouraging the use of cleaner vehicles for journeys that cannot be made by walking, cycling or public transport. 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 Havering consists of London Clay. The valley heads of the Rivers Rom/Beam and Ingrebourne are characterised by boulder clay capping tertiary deposits. On the high ground in this area, the geology includes Bagshot and Claygate Beds, which cap the London Clay. In the Collier Row, Chase Cross and Harold Wood area there are outcrops of London Clay

with a few patches of Boulder Clay still evident on the valley sides of the River Ingrebourne.

- 5.6.2 South of this in the Dagenham, Romford and Rainham area are terrace gravels (Taplow Gravel) with flood plain gravels found capping the London Clay. In places, neither London Clay nor Glacial Boulder Clays are present (close to the River Thames), thus exposing the less impermeable strata of Woolwich and Reading Beds and Thanet sands. Chalk underlies the London Clay, Woolwich and Reading Bed and Thanet Sand sequence, especially adjacent to the Thames.
- 5.6.3 The Beam and Ingrebourne catchments are dominated by clay based soils, which are seasonally waterlogged.
- 5.6.4 There are currently five sites on the borough's Public Register of Contaminated Land. All five sites have been remediated. There are numerous other sites, which have been previously utilised for heavy industry and other contaminative uses, such as landfill, and this may pose land contamination problems for future development on such sites.
- 5.6.5 It is not foreseen that the LIP will have any significant impact on soil quality.

5.7 Water

- 1.1.4 As mentioned above, the 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.
- 1.1.5 The protection of controlled waters is one of the major issues associated with Havering. There are four distinct watercourses in Havering:
- The River Beam forms a part of the western boundary of the borough, with the London Borough of Redbridge to the west. It has three tributaries; the River Rom (which flows through Romford) and Blacks Brook and further south the River Ravensbourne whose confluence is south of Romford;
 - The Ingrebourne, including its tributaries the Weald Brook and the Paines Brook, drain the centre, east and west of the borough;
 - The River Mardyke drains the eastern area of the borough although for most of its length it flows through Thurrock, outside Havering;
 - The final watercourse is the River Thames, into which the above watercourses drain. This forms the southern boundary of the borough.
- 1.1.6 In addition to the four watercourses listed above, the following rivers can be found in Havering.
- Rainham Main Sewer
 - Wennington Branch Sewer
 - Rainham Creek

- Haverings New Sewer
- Carters Brook
- Paines Brook
- Weald Brook
- Ravensbourne
- Emerson Park Stream
- Blacks Brook
- Rom
- West Mardyke Branch
- Puddledock Sewer
- Runningwater Brook

1.1.7 The EA is the lead authority on the WFD and has classified the ecological quality of all the rivers in Havering as 'moderate' status under the WFD. All rivers will need to achieve 'good' ecological status or potential by 2027.

1.1.8 It is not anticipated that the implementation of LIP proposals will have an impact on water in the borough.

5.8 Preparation for Flooding

1.1.9 Under the Flood Risk Regulations 2009, Havering 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.

1.1.10 The London Borough of Havering is potentially vulnerable to flooding from three sources:

- River Thames, River Rom, River Beam and River Ingrebourne, are all key features of the borough and all pose (to some degree) a potential risk of flooding to local homes and businesses located within their catchments;
- The London Borough of Havering is also potentially vulnerable to tidal flooding along the Thames downstream of the Thames Barrier. The borough is however, protected by the Thames Tidal Defences, which run along both banks of the river downstream of the Thames Barrier;
- Urbanised areas of the borough are vulnerable to surface water flooding particularly Romford Town Centre.

1.1.11 The Washlands is a Flood Storage Area (FSA) for the River Beam. Due to the significant amount of development being proposed in, and nearby, the Washlands FSA as part of the Rainham and Beam Park Strategic Development Area, developments within the FSA are required to submit site-specific flood risk assessments. This should specifically demonstrate resilience measures,

safe access and egress or places of refuge as well as the potential of increasing flood risk elsewhere.

- 1.1.12 To provide guidance and information for residents, businesses and developers to help understand and better manage flood risk within the borough, Havering has produced a Local Flood Risk Management Strategy (2017). The strategy sets out Havering's nine overarching objectives to effectively manage flood risk:
- To provide a clear explanation of all stakeholder's responsibilities in flooding issues;
 - To ensure a clear understanding of the risks of flooding from surface runoff, groundwater and ordinary watercourses;
 - To define and explain the criteria by which areas at risk from flooding are assessed and resources are prioritised;
 - To state how risk management authorities will share information and resources;
 - To ensure households and properties are aware of the level of flood risk they face and the steps they will need to take to manage the risk;
 - To set out clear and consistent plans for risk management so that communities and businesses can make informed decisions about the management of the residual risk;
 - To ensure that planning decisions are properly informed by flooding issues and the impact future development may have;
 - To encourage innovative management of flood and coastal erosion risks, taking account of the needs of communities and the environment;
 - To ensure that emergency plans and responses to flood incidents are effective and that communities can respond properly to flood warnings.
- 5.8.1 As required by the Flood and Water Management Act 2010, Havering has produced a Surface Water Management Plan (SWMP) as part of the strategy for managing flood risk. Surface water flooding includes flooding from sewers, drains, groundwater, and runoff from land, small water courses and ditches following heavy rainfall. The SWMP outlines the preferred surface water management strategy for areas that have known localised flooding problems. Such areas have been identified as Havering Critical Drainage Areas (HCDAs) in the Strategic Flood Risk assessment (SFRA).
- 5.8.2 Havering's emergency services operate under a Multi-Agency Flood Plan that identifies the flood risks and emergency response framework. The latest version of this plan was published in 2017.
- 5.8.3 Implementation of proposals such as streetscape improvements including the installation of greening measures will have a significant positive impact on surface water flooding in the London Borough of Havering.

5.9 Cultural Heritage, Landscape and Townscape

- 1.1.13 Havering contains a wealth of designated heritage assets, including 140 listed buildings, 3 Scheduled Monuments, and 11 Conservation Areas that are afforded statutory protection, and Upminster Court Gardens, which is on Historic England's Register of Parks and Gardens of Historic Interest in England.
- 1.1.14 Of the eleven conservation areas, Romford Conservation Area is considered at risk, mostly due to high development pressures for this metropolitan centre and is therefore under constant monitoring.
- 1.1.15 Of the 140 statutory listed buildings, six are Grade I and fifteen are Grade II*. The Grade I buildings include the Bower House, Parish Church of St Andrew and the Church of St Laurence. The borough also includes 181 buildings of local heritage interest.
- 1.1.16 English Heritage has identified several Archaeological Priority Areas (APAs) and Archaeological Priority Zones (APZs), comprising either known or potential archaeological areas, within the borough.
- 1.1.17 Historic England publish an annual register of Heritage at Risk, a region by region list of all the Grade I and II* (and Grade II in London) listed buildings, scheduled monuments and registered parks and gardens, battlefields and protected wreck sites in England known to be 'at risk'. Since 2009 the register has also included conservation areas considered to be in certain or potential risk. Boroughs have at least some assets on the register.
- 1.1.18 The 2010 'Heritage at Risk' register published by Historic England identified Romford Conservation Area to be at risk as well as thirteen buildings and one SAM (Dagnam Park Farm).
- 1.1.19 In terms of landscape, 50% of Havering's area is Green Belt, accommodating a network of pathways and bridleways that form 'green chains' throughout the countryside. The Thames Chase community forest accounts for 70% of Green Belt land, including 400 hectare of forest cover.
- 1.1.20 Havering has 126 parks and other publicly owned open spaces, of which four are metropolitan parks and five are district parks. Nine of the parks have Green Flag awards (Bedfords Park, Cottons Park, Harold Wood Park, Hylands Park, Lawns Park, Lodge Farm Park, St Andrews Park, Raphael Park and Upminster Park).
- 1.1.21 In terms of townscape, most of Havering's streets are grid based, characterised by a framework of interconnected routes that define street blocks, as is typical of outer London suburban locations.
- 1.1.22 Romford is the largest town centre in the borough and is identified as a metropolitan centre in the London Plan. Romford is already a key transport hub in Havering with more than 25 bus routes using the town centre. From 2019, it will benefit from improved rail services through the arrival of Elizabeth Line services through Crossrail. Romford has been awarded

Housing Zone status and several sites have been identified in and around the town centre to provide a minimum of 5,300 new homes, attract business growth and expand leisure and cultural facilities.

- 1.1.23 Rainham and Beam Park is identified within the London Riverside Opportunity Area for intensification of industrial land in the Rainham Employment Area and the creation of new residential communities. Rainham and Beam Park was granted Housing Zone status by the Mayor of London in 2015.

5.10 Noise

- 5.10.1 Noise from road transport is the main source of ambient noise throughout the borough. Several busy roads cross through Havering, heading west into central London and the M25 runs north-south along most of the eastern borough boundary.
- 5.10.2 A strategic noise mapping exercise was undertaken by Defra in 2012 to meet the requirements of the Environmental Noise Directive (Directive 2002/49/EC) and the Environmental Noise (England) Regulations 2006 (as amended). Results for the LAeq,16h indicator, which indicates the annual average noise level (in dB) for the 16-hour period between 0700-2300, show values of 75.0 dB and over for the M25, the A12 and A127 and the Romford ring road. The noise generated by traffic on the M25 impacts the greatest extent of surround areas.
- 5.10.3 Many of the measures in the LIP3 such as planting street trees, encouraging walking, cycling, the use of public transport and electric/hybrid vehicles, will help to reduce transport noise. However, the impact of the M25 is a wider issue beyond the scope of the Havering LIP3.

5.11 Accessibility

- 5.11.1 Transport for London's Greater London PTAL (Public Transport Access Levels) mapping for 2016 indicates access to public transport within Havering is 'poor' or 'very poor' across most of the borough except for the town centres of Romford ('excellent') and Upminster ('good'), both of which are well connected to central London by London Overground and train services. Upminster is also served by the District Line and Romford will benefit by the coming of the Elizabeth Line in 2019. The rest of the borough suffers from 'poor' to 'very poor' access to public transport due to a deficiency in north-south connectivity within the borough.
- 5.11.2 PTALs quantify relative connectivity to the public transport network for any location in London, i.e. the proximity to public transport services and wait times, and not where the public transport services take people to or indeed how accessible they are to all members of the population. For instance, older and disabled people may find it difficult to undertake even short distances on foot or to use public transport, due to impaired ability and/or poorly maintained footways.

5.11.3 Local authorities are required to carry out accessibility planning to ensure older people have access to facilities such as hospitals and GP's surgeries through good and accessible public and private transport facilities. As Havering's only hospital is in Romford, it is important for the council to ensure all residents have public transport access to this important facility.

5.11.4 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. Implementation of the LIP should also have a significantly positive impact in areas where accessibility to employment opportunities are low, with a key objective to ensure sustainable access to Havering's employment areas including the Romford and Rainham and Beam Park Strategic Development Areas.

5.12 Congestion

5.12.1 Traffic congestion in east London places a high economic, environmental and social cost on the area. Information sourced from Department for Transport shows the number of vehicles recorded travelling on Havering roads has increased from 2000, peaking at 2017 with a significant increase in the number of recorded vehicles in the five-year period between 2012 and 2017.

5.12.2 Figure 20 (sourced from TfL) enables a comparison to be made against volumes of motor traffic recorded in Central, Inner, Outer and Greater London and Great Britain.

5.12.3 Havering is an Outer London Borough. Based on information from TfL, Havering experiences significantly higher volumes of motor vehicles on its roads than the average volume of motor vehicles recorded in the entire outer London area.

5.12.4 A travel modal shift from the private car to sustainable travel modes can reduce traffic congestion and air pollution in urban areas. The TfL publication *Travel in London: Report Ten (2017)* indicates trip-based active, efficient and sustainable mode share by Borough of residence based on a three-year average.

5.12.5 Outer London residents have generally lower overall active, efficient and sustainable mode shares than Inner London residents. Havering has an active, efficient and sustainable mode share of approximately 44%, which is the third lowest of all London Boroughs (only Bexley and Hillingdon are lower).

5.12.6 Havering are currently working with neighbouring local authorities in Essex and the wider south east on strategic transport issues to support sub regional growth including the A127 Growth Corridor.

5.12.7 A travel modal shift from the private car to sustainable travel modes can reduce traffic congestion and air pollution in urban areas.

5.13 Road Safety

5.13.1 The Borough is committed to reducing the number of people killed or seriously injury (KSI) because of road traffic collisions, with a focus on areas

near schools and KSI ‘hotspots’. The most recent collision statistics collated for the TfL publication *Collision Levels in Greater London 2011-2013* (2015), depicting collision rates per kilometre by Borough and road class show that except for Bromley, Harrow and Hillingdon, Havering has the lowest collision rate for ‘all roads’ in London. Despite this statistic, no number of KSI’s should be considered acceptable, no matter how low that number is.

5.13.2 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.

5.14 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 7 in Chapter 7.

5.14.3 SEA objectives for Havering’s transport strategy have been developed in tandem with the development of Havering’s transport objectives and the baseline for SEA topics.

5.14.4 Table 6 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	3, 7, 9
	Increase the number of trees on the highway	3, 7,9
Population and human health	Create conditions to improve health and reduce health inequalities	1, 3, 4, 5, 6, 7, 8, 9, 11
Air Quality	Reduce emissions emanating from ground-based transport	2, 3, 4, 7
Climate change	Reduce CO ₂ emissions emanating from ground-based transport	1, 3, 4, 7

Soils and contaminated land	Minimise soil contamination through land- based transport	1, 3,9,10
Water	Minimise ground water contamination through land-based transport	1, 2, 3, 9, 10
Preparation for flooding	Improve surface water drainage	1, 2, 3, 9, 10
		2, 3, 5, 7, 8, 9, 11
Noise	Reduce noise and vibrations from ground based transport	1, 3, 9
	Ensure all residents have access to public transport Ensure footpaths are maintained and easy to navigate by all users	1, 2, 3, 4, 5, 8, 10
Congestion	Reduce levels of ground based transport, mainly private cars, HGVs	1, 7, 9, 10
	Improve road safety by reducing casualties of all road users in Havering	6, 9

Table 6: 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 (22nd 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 as English Heritage): Historic England sent a response to the Scoping Report on 01 October 2018. Key comments include:

- Set out more detailed environmental objectives and questions against which to measure outcomes;
- Identify the potential for positive effects and opportunities to mitigate harm to London's built heritage and sites of cultural importance through better revealing historic significance and access to the historic environment.
- The objectives in respect of Heritage should have greater clarity and alignment with National Policy and Guidance.
- The aims for Cultural Heritage and Heritage Assets should state the need to protect and enhance existing heritage assets and the historic environment, including sites, features, landscapes and areas of historic, archaeological and cultural value, in relation to their significance and their settings.
- Reword assessment criteria from "Create places and spaces that will become a cultural feature of an area." to "Create well integrated places and spaces which reflect local character and seek opportunities to enhance cultural activities" to better reflect the requirement to protect the historic environment and seek

opportunities to better reveal its significance while promoting cultural uses.

- See Historic England’s advice note on Strategic Environmental Assessment (<https://content.historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/heag036-sustainability-appraisal-strategic-environmental-assessment.pdf/>) for a range of potential assessment questions to measure the effects on the historic environment and local townscape and to identify environmental impacts.

6.2 Response

6.2.1 Natural England – no response required

6.2.2 Environment Agency – Table 7 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 – More detailed environmental questions and objectives are set out in table 6 of this ER. The cultural heritage SEA objective has been changed as per their suggestion [table 6]. The monitoring framework is set out in paragraph 9.3 of this ER. The suggested documents are listed in paragraph 4.2.

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 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 for pedestrians and	Significant – positive

		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 Havering 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 Havering 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 Havering fairer and to reduce barriers to exclusion	Significant - positive

	Noise and vibration: increasing traffic volume, increase in heavy goods vehicles. Poor condition of material assets such as road	The LIP includes approaches to reduce the impact of heavy goods vehicles and safety and environmental schemes	Significant - positive
	Physical fitness, mental health and quality of life: significant increase in obesity rates	The LIP prioritises walking and cycling including school and work travel planning, cycle training and has targets for reducing traffic and car ownership	Significant positive
Air Quality	Reduced air quality: increasing road traffic volume congestion, CO ₂ , NO ₂ and particulates	The LIP prioritises sustainable modes of travel and has targets to reduce traffic and car ownership The LIP has targets to reduce CO ₂ and other pollutants	Significant - positive
Climate change	Extreme weather conditions: increasing risk of flooding, disruption to the transport network, deterioration of road network	The LIP promotes the use of sustainable and environmentally friendly materials and construction techniques. The LIP monitors and improves principal road condition	Significant - positive
Soils and contaminated land	Contamination through land- based transport	The LIP promotes the use of sustainable and environmentally friendly materials and construction techniques.	Significant - positive
Water	Ground water contamination through land- based transport	The LIP promotes the use of sustainable and environmentally friendly materials	Insignificant - positive

		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 groups, people with push chairs, etc.	The LIP monitors and improves principal road condition	

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 7: Problems, opportunities and likely effects

7.2 Risk and uncertainty

7.2.1 Some of the topics are influenced 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 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 Havering's Third LIP. This section first assesses the relationship between Havering's LIP3 objectives and the SEA objectives. It then continues to assess Havering's transport interventions for delivering the objectives. Alternatives and the 'do nothing' option are also assessed.
- 8.1.2 Table 8 assesses the relationship between Havering'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.
- 8.1.3 The LIP3 objectives are listed below and numbered 1 to 11. In the table 8, the LIP objectives are represented by the corresponding numbers as indicated in the list:
1. To improve north south transport connectivity through provision of alternative travel choices to the private vehicle.
 2. To ensure sustainable access to Havering's employment areas including the Romford and Rainham and Beam Park Strategic development areas.
 3. Enable healthier lifestyles through the provision of active and sustainable travel choices to residents and visitors in Havering and to make Havering a better place to walk and cycle around.
 4. Work with partners to deliver fully accessible transport links to ensure that residents and visitors with disabilities have the freedom to choose how to travel in the borough.
 5. Ensure that the needs of the less mobile are prioritised when delivering public realm improvements and "better streets".
 6. To deliver "Visions Zero" in Havering by 2041 through reducing casualties of all road users on borough roads, especially in the vicinity of schools and KSI "hotspots"
 7. Improve Air Quality in Havering by delivering transport and regeneration programmes that contribute to reducing CO₂, PM₁₀ and NO_x emissions and that support Havering's adopted Air Quality Action Plan.
 8. To reduce the fear of crime and antisocial behaviour and improve perception of personal safety and security to encourage residents to travel actively.
 9. Through the Healthy Streets agenda, enhance and maintain the quality of public realm in our Major, Minor and District centres to create high quality safe neighbourhoods that people want to live and travel within.
 10. To strengthen strategic links with neighbouring local authorities in Essex and the wider South East on strategic transport issues to support sub regional growth including the A127 growth Corridor.
 11. To bring and maintain all infrastructure assets to good state of repair within Havering.

		LIP Transport Objectives											
		1	2	3	4	5	6	7	8	9	10	11	
SEA Objectives	Reduce negative impact of transport network on biodiversity, flora and fauna			x		x		x		x		X	
	Increase the number of trees on the highway			x		x		x		x		X	
	Create conditions to improve health and reduce health inequalities												
	Reduce emissions emanating from ground-based transport	x	x	x				x		x			
	Reduce CO2 emissions emanating from ground-based transport												
	Minimise soil contamination through land-based transport			x				x				X	
	Improve surface water drainage												
	Protect and enhance the natural and historic environment and quality and character of Havering	x	x	x	x	x					x	x	X
	Reduce noise and vibrations from ground based transport												
	Ensure all residents have access to public transport				X	X							
	Ensure footpaths are maintained and easy to navigate by all users												
	Reduce levels of ground based transport, mainly private cars, HGVs	x	x	x					x		X		
	Improve road safety by reducing casualties of all road users												

Table 8: Relationship between Havering’s LIP3 objectives and the SEA objectives

8.2 Identifying alternatives

- 8.2.1 A necessary part of the SEA scoping process is to look at alternative methods of achieving the objectives of the Transport Plan for Havering.
- 8.2.2 Table 9 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.

	Biodiversity, flora and fauna	Population and human health	Air quality	Climate change	Soils and contaminated land	Water	Preparation for flooding	Cultural heritage, landscape and	Noise	Accessibility	Congestion	Road safety
Borough objectives												
1 To improve north south transport connectivity in Havering through provision of alternative travel choices to the private vehicle.	0	p	p	0	0	0	0	p	p	p	p	0
Alternative												
Improving active travel information provision	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 To ensure sustainable access to Havering's employment areas including the Romford and Rainham and Beam Park Strategic Development Areas	0	p	P	0	0	0	0	P	0	P	0	0
Alternative												
Route maintenance	0	0	P	0	0	0	0	0	0	P	0	0
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0
3 Enable healthier lifestyles through the provision of active and sustainable travel choices to residents and visitors in Havering and to make Havering a better place to walk and cycle around.	0	p	P	0	0	0	0	P	P	p	P	0
Alternative												
Pedestrian/cycle training	0	p	P	0	0	0	0	p	P	P	P	0
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0
4 Work with partners to deliver fully accessible transport links to ensure that residents and visitors	0	p	0	0	0	0	0	0	0	P	0	0

with disabilities have the freedom to choose how to travel in the borough.													
Alternative													
Promote disabled peoples existing entitlements regarding transportation	0	p	0	0	0	0	0	0	0	0	P	0	0
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Ensure that the needs of the less mobile are prioritised when delivering public realm improvements and better streets .	0	p	0	0	0	0	0	0	P	0	P	0	0
Alternatives													
Pedestrian crossover programme	0	0	0	0	0	0	0	0	0	0	P	0	0
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	0
6 To deliver Visions Zero in Havering by 2041 through reducing casualties of all road users on borough roads, especially near schools and KSI hotspots .	0	p	0	0	0	0	0	0	p	0	0	0	p
Alternative													
Road Safety education programme	0	p	0	0	0	0	0	0	0	0	0	0	p
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Improve Air Quality in Havering by delivering transport and regeneration	0	p	P	0	0	0	0	0	p	P	0	P	0

programmes that contribute to reducing CO ₂ , PM ₁₀ and NOx emissions and that support Havering's adopted Air Quality Action Plan.													
Alternative													
Reducing vehicles by restraint	0	N	P	0	0	0	0	P	P	N	P	p	
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	0
8 To reduce the fear of crime and antisocial behaviour and improve perception of personal safety and security to encourage residents to travel actively.	0	p	0	0	0	0	0	P	0	P	0	0	
Alternatives													
Street clutter removal/vegetation clearing programme													
Do nothing													
9 Through the Healthy Streets agenda, enhance and maintain the quality of public realm in our Major, Minor and District centres to create high quality safe neighbourhoods that people want to live and travel within.						0							
Alternatives													

Street clutter removal/vegetation clearing programme													
Do nothing													
10 To strengthen strategic links with neighbouring local authorities in Essex and the wider South East on strategic transport issues to support sub regional growth including the A127 growth Corridor and remodelling Gallows Corner.	0	P	0	0	0	0	0	0	0	P	0	0	
Alternatives													
Faster bus speeds/fewer bus stops	0	0	0	0	0	0	0	0	0	p	0	0	
Increasing capacity for motor vehicles	0	n	N	0	0	0	0	N	N	P	N	n	
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	
11 To bring and maintain all infrastructure assets to good state of repair within Havering.	0	0	P	0	0	0	0	P	0	0	0	0	
Alternatives													
Maintain assets that are in a severe stage of degradation	0	0	0	0	0	0	0	p	0	0	0	0	
Do nothing	0	0	0	0	0	0	0	0	0	0	0	0	
Programmes													

	0	P	P	0	0	0	0	P	P	P	P	p
Delivery of Vision Zero												p
	0	P	0	0	0	0	0	P	0	P	0	p
Healthy Streets	0											p
Unlocking Growth	0	P	0	0	0	0	0	p	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0

Table 9: Relationship between Havering’s LIP3 objectives and the SEA objective

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 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 Havering'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 This ER will be made available to TfL by 02 November 2018 and for wider public consultation in January 2019. The ER will be available on the Council's website (www.havering.gov.uk) from January 2019.

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.

10.1.4 Please send any feedback, comments or queries to
Email: Lip3@havering.gov.uk

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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