London Borough of Lewisham

Transport Strategy and Local Implementation Plan (LIP)

2019 - 2041

March 2019

Final

Foreword

We welcome this opportunity to set out our plans for the future of transport in Lewisham. Through this Transport Strategy and Local Implementation Plan (LIP), Lewisham Council has detailed its aspirations for the Borough up to 2041 to contribute towards achieving the ambitious visions of the London Mayor's Transport Strategy (MTS).

The Council recognises the importance of its role not only in delivering a programme of investment that supports the visions of the Mayor at a wider level, but is also tailored to the needs of its residents.

On this basis, we have adopted the Healthy Streets approach which will help us to achieve a transport network that is safe and inclusive for all, and creating active, attractive and vibrant places where people enjoy living, shopping and spending time. To ensure initiatives are supported by and tailored towards public need, we have also reached out to all those who live, work and spend time within Lewisham to gather suggestions directly from the public.

Through this LIP, the Council sets out its objectives over the next three years (2019 – 2021) which are aimed to complement the objectives of the MTS. It informs how the Council will invest over the three-year period in transport improvement project within the Lewisham's control, and identifies areas beyond the Council's control where we will collaborate with relevant bodies, including Transport for London (TfL), Network Rail, and neighbouring boroughs, to achieve the objectives of this LIP and the MTS.

This LIP forms a working document, and throughout the three-year period, Lewisham's progress towards achieving the objectives of the MTS will be monitored and reported to the TfL on an annual basis.

Through working collaboratively with governing bodies, public transport providers, and those who reside and work in Lewisham, we believe we have created a LIP that will work towards achieving a healthy and sustainable network of vibrant links and places that are pleasant for all to use and spend time in.

Cllr Brenda Dacres

Cabinet Member for Parks, Neighbourhoods & Transport (job share) with responsibility for Arts, Sports, Leisure, Culture, Town Centres, High Streets, Night Time Economy Strategy, Parking Enforcement, Highways & Transport

Cllr Sophie McGeevor

Cabinet Member for Parks, Neighbourhoods & Transport (job share) with responsibility for environment, Waste and Recycling, Air Quality and Parks and Green Spaces

Executive summary

Overview

Lewisham's Local Implementation Plan (LIP) is a statutory document prepared under the GLA Act that requires the Borough to detail its proposals for implementing the Mayor's Transport Strategy within Lewisham. With each new MTS, new LIPs are required to be prepared, and this document forms the third LIP for the Borough to correspond with the new MTS, published in March 2018.

Lewisham has undergone major growth in recent years, and with continuing major development and regeneration expected, the Borough will undergo a transformation that will support economic growth and London's increasing population. This will be particularly evident in Lewisham's two Opportunity Areas as identified in the London Plan (Lewisham, Catford and New Cross, and Deptford Creek / Greenwich Riverside), which hold the potential to deliver over 10,000 new jobs and 13,000 new homes. This new development will bring new demands on the existing transport network, potentially exacerbating existing crowding and congestion issues on the public transport and road networks.

The Borough also experiences an uneven pattern of public transport provision across the area. The Lewisham, Catford and New Cross Opportunity Area is generally well served by public transport with a high density of rail stations and bus routes linking to frequent services. However, the far north and south is lacking infrastructure, with low Public Transport Accessibility Levels and some areas over 1.5km from the nearest rail station. It is also recognised that improved transport connections between the North and South of the borough need to be improved. As well as orbital connections particularly across the south of the Borough.

Solving these issues cannot realistically be addressed by limited sources of funding. The Borough must therefore look to solutions through this LIP focussed on changing travel behaviour at a local level. These will support the major infrastructure projects that the Borough aspires to deliver through working in partnership with Transport for London (TfL), public transport providers, and neighbouring boroughs where appropriate.

The Borough is responding to these challenges and opportunities by setting out its short- and long-term goals and transport objectives for Lewisham up to 2041. The LIP details a programme of investment over a three-year period from 2019/20 to 2021/22, and sets out the aspirations for the Borough for long-term major infrastructure improvements to be delivered up to 2041.

All measures identified within this LIP will support the delivery of the Mayor's Transport Strategy (MTS) within Lewisham. It will enable the Borough to plan strategically for transport, to achieve the broad MTS goals of;

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

A key aspect of the LIP is the Borough's role as a partner, working with TfL, residents, businesses and other local stakeholders to achieve a range of improvements to the transport network and transform the way that people travel.

Some of the measures and proposals in the LIP can be implemented by the Borough, using its statutory planning, highways and network management, and parking powers. Other interventions, particularly larger long-term projects, will have to be delivered in partnership with TfL and other organisations, particularly improvements on the Transport for London Road Network (TLRN), and at rail and underground stations.

Common to all London boroughs, this LIP comprises of the following parts:

- Chapter 1 – defines the process followed in preparing the LIP
- Chapter 2 – outlines the local context, challenges and opportunities considered in preparing the local objectives of the LIP within the framework of the MTS priorities and outcomes.
- Chapter 3 – details a three-year programme of investment that will deliver the LIP objectives and the outcomes of the MTS, and a more detailed annual programme for the first year of investment through the LIP
- Chapter 4 – sets out how the Borough will monitor its achievements

Challenges and opportunities

The challenges and opportunities within Lewisham were considered in relation to inciting a change in the transport mix and within the context of the MTS outcomes.

A wide range of issues and opportunities have been identified, with some of the main issues as follows:

Challenges

- Lacking public transport infrastructure to the south-east of the Borough, and corresponding high car mode shares.
- Bus and rail orbital routes are limited making radial movements typically faster than orbital trips. The key orbital road links, such as the South Circular Road, contribute towards orbital trips being more attractive by car.
- Perceptions of safety and security in deterring active travel.
- Improving road safety and reducing the number of collisions, particularly involving killed or seriously injured casualties to achieve Vision Zero. Through this, an approach of balancing the needs of all road users, including

vulnerable motor traffic is essential to ensure balanced improvement in safety, rather than shifting the brunt of road danger from one mode to another.
- Large proportion of vehicular through-traffic and on the Transport for London Road Network (TLRN). This creates challenges, both in implementing traffic reduction schemes, and reducing through-trips in Lewisham without pushing the problem into neighbouring areas.
- Achieving a reduction in overall car ownership in conjunction with the drive for increased Electric Vehicle (EV) infrastructure.
- Accommodating a growing population on an already crowded public transport network.

Opportunities

- Extension of the proposed Bakerloo Line Extension (BLE), with Borough support for the full potential extension to Hayes as a single phase will provide a step-change in public transport provision for the under-served south.
- Strengthening orbital bus routes, particularly in the south of the Borough. This would be unlocked supported by the potential BLE extension.
- The proposed Brockley Interchange Station will strengthen orbital rail links by providing an upper platform linking to existing orbital rail services.
- Improving active travel links to public transport access points, particularly in the areas with low Public Transport Accessibility Levels (PTAL) to facilitate multi-modal journeys.
- The Lewisham Spine (A21 Healthy Streets Corridor) could unlock potential for greater social inclusion and a shift towards more multi-modal longer distance journeys by linking the south of the Borough to the better-connected public transport infrastructure to the north.
- Collaborative working with TfL and neighbouring boroughs to reduce traffic levels, particularly through-traffic and improve air quality.
- Increasing rail capacity through key schemes identified in Lewisham's 'A Vision for Rail' (2017) document.
- Improved cycle network through partnership working with TfL on Cycle Superhighway and Quietway programmes.
- Exploring opportunities arising from wider regeneration plans and masterplanning exercises.

Objectives

Based on the challenges and opportunities considered within the LIP, a set of objectives for Lewisham have been derived. These have been developed to align and assist with meeting the MTS aim of increasing the sustainable travel mode share. Specific outcome indicators are included within the LIP to aid delivery of the LIP 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

Delivery plan

Based on the objectives of the LIP, and the outcomes of the MTS, the Delivery Plan outlines the investment programme and projects for the three-year period from 2019/20 to 2021/22, as well as the longer-term aspirations for new and upgraded infrastructure and services that will be brought forward collaboratively with the Borough, TfL and public transport providers. Some (but not all) of the longer-term projects are listed below:

- Bakerloo Line Extension beyond its current termini at Elephant & Castle, to serve New Cross Gate and Lewisham. The Council urges the full extension to Hayes to be brought forward as a single phase to serve Catford.
- Expansion of the Ultra-Low Emission Zone (ULEZ) to encompass the entire Borough (or strengthening of existing LEZ standards).
- The Lewisham Spine (A21 Healthy Streets Corridor), including Cycle Superhighway standard facilities, low emission bus zone, healthy streets improvements with piazza-type environments.
- Lewisham Station & Interchange will include enhancements to capacity to create a high-quality interchange between National Rail, DLR, the future BLE, buses, taxis, walking and cycling.
- Lewisham Town Centre will be subject to a range of improvements including public realm to provide a high-quality environment and elevate the attraction of the Town Centre.
- Catford Regeneration Masterplan will include the rerouting the South Circular Road to provide more pedestrian space and improvements to transport infrastructure.
- Brockley Station Interchange will create a high-level platform at Brockley Station to provide an interchange between the East London Line and the Lewisham – Victoria Line.

The three-year programme of investment outlines generally smaller-scale LIP funding programmes through which schemes can be delivered by the Borough. The programme was derived through curation of a 'long list' of schemes during internal workshops at the Council, and supplemented by site visits and an eight-week public consultation exercise during which comments and suggestions were gathered from the public using the Commonplace platform.

The funding programmes have been prioritised based on compliance with the LIP and MTS objectives to inform the three-year programme of investment. Where possible, LIP funding will be supplemented with developer funds and in some cases these funds can deliver entire projects without the need to rely on TfL or Council funding.

Key programmes of investment include:

- Healthy Neighbourhoods: this programme will adopt the principles of the Liveable Neighbourhoods schemes, and apply them at smaller-scale local levels. It will incorporate 'Healthy Schools' principles and provide measures to encourage more active travel and traffic reduction through point closures, identifying and addressing issues of rat-running.
- Road Danger Reduction: including review of 20mph speed limit enforcements, traffic calming and speed camera schemes.
- Local Pedestrian Improvements: including accessibility, resurfacing and urban realm improvement schemes.
- Local Cycling Improvements: including upgrading of public cycle parking, contra-flow cycle lanes, installation of on-street bike hangars and identifying and upgrading cycle links.
- Air Quality and Noise: including delivery of electric vehicle charging points
- Safer and active travel: including cycle training, school travel planning and other road danger reduction initiatives.
- Crofton Park: completion of streetscape improvement scheme, including widened footways, improved pedestrian crossings, raised table junctions, new street trees and public realm enhancements.

Monitoring

An important part of delivering the LIP is monitoring its progress against the MTS outcomes to ensure that the LIP is succeeding in achieving them. The trajectory of change to achieve the outcomes is likely to change and fluctuate over the course of the MTS period, and monitoring will allow the Council to adjust schemes and interventions to target requirements.

TfL will collect strategic data on behalf of the boroughs for the overarching mode share aim and the nine MTS outcomes to assist in monitoring. In addition to outcome indicators, delivery indicators are also set against each of the nine MTS outcomes. These provide a reference for the delivery of the MTS at a local level. The Borough will monitor and record the delivery indicators and report to TfL once a year in June using Proforma C.

1. Introduction and preparing a LIP[1]

Introduction[2]

The Local Implementation Plan (LIP) is a statutory document prepared under Section 145 of the GLA Act and sets out how the borough proposes to deliver the Mayor's Transport Strategy (MTS) in its area, as well as contributing to other local and sub-regional goals. It has been developed in accordance with the Revised Guidance for Borough Officers on Developing the Third Local Implementation Plan (LIP3). It also acts as the Borough's Transport Strategy.

This document is the third Transport Strategy and LIP for the London Borough of Lewisham. It covers the same period as the MTS (published in March 2018) and it also takes account of the transport elements of the draft London Plan, and other relevant Mayoral and local policies. The document sets out long term goals and transport objectives for the London Borough of Lewisham for the next 20 years, includes delivery proposals for the three-year period 2019/20 - 2021/22 and sets out the targets and outcomes the borough are seeking to achieve. A more detailed delivery plan is provided for the first financial year 2019/20.

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

The Council notes that the overarching aim of the strategy is for 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041, compared to 63 per cent today, and there are different targets set for central, inner and outer London. The LIP outlines how Lewisham Council will set local priorities and targets in order to assist with achieving this aim.

This document also outlines how the Council will work with TfL to assist with delivering the outcomes, polices and proposals of the MTS.

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[1] Requirement R1: No response required in LIP submission. It is a requirement for the borough to provide a response to every Mandatory Requirement.

[2] Requirement R2: Boroughs are required to include in their LIP an explanation of the statutory background of the LIP process.

Local approval process[3]

Elected Members have provided guidance to the borough officers during the development of the Draft LIP.

The LIP was considered by the Council's Mayor & Cabinet on 20 September 2018 and Sustainable Development Committee (Scrutiny) in October 2018. It was then submitted for draft consultation in Autumn 2018 to TfL and other consultees.

The Final LIP was revised in response to feedback from consultees, and was submitted for approval by the Mayor & Cabinet in early 2019. The final draft version was submitted to TfL on the 16th February 2019, receiving Mayor of London approval in March 2019.

Statutory consultation[4]

The GLA Act 1999 places a duty on boroughs, when preparing a LIP, to consult with the following organisations:

- The relevant Commissioner or Commissioners of Police for the City of London and the Metropolis
- TfL
- Such organisations representing disabled people as the boroughs consider appropriate
- Other London boroughs whose area is, in the opinion of the council preparing the LIP, likely to be affected by the plan
- Any other body or person required to be consulted by the direction of the Mayor

The borough ran two stages of public consultation:

- a six-week informal consultation (June-August 2018) via the online platform 'Commonplace' to gather both public and internal Council suggestions on local issues and improvements to be considered in the LIP.
- a formal six-week public consultation exercise in Autumn 2018. The consultation appeared on the borough's website along with hard copies

[3] Requirement R3: The boroughs are required to outline the democratic processes taken to approve the submission of the LIP at a borough level.

[4] Requirement R4: Boroughs are required to provide evidence to show that all statutory consultees and any other organisations/groups have been engaged with during the formal statutory consultation period. They must also demonstrate how the views of their consultees have been taken into account.

available on request, and was available for any member of the public to respond.

A range of bodies were directly consulted, including the statutory consultees mentioned above and those included in the table below. A full list of consultees is included in Appendix A. All direct consultees were written to, drawing attention to the consultation, where it could be found on the borough's website, and the closing date.

The direct consultees fall into a number of broad categories as follows:

Statutory consultee	
TfL	
Police	
Disability groups	
Local authorities	
Non-statutory consultee	Number consulted
Emergency Services	2
Transport operators	5
Walking and Cycling associations	3
Freight and Haulage associations	2
Motorcycle groups	1
Business groups	
Resident/community groups and associations	18 local assemblies plus Amenity Societies

In addition to formal feedback from TfL, there were 8 responses from stakeholder consultees via email, and 218 responses to the online public survey. Bodies and individuals responding to the consultation were:

- Transport for London
- Lewisham Cyclists
- Freight Transport Association (FTA)
- Drakefell Road Action Group
- London Borough of Lewisham Nature Conservation
- Metropolitan Police
- Lewisham Living Streets
- Grove Park Neighbourhood Forum
- Perry Vale Residents

A more detailed summary of the responses received and the borough's response to individual points raised can be found on the borough's website at https://www.lewisham.gov.uk/inmyarea/regeneration/transport-and-major-infrastructure/Pages/Local-implementation-plan.aspx

Statutory duties[5]

The borough has taken into account all the statutory duties and processes as set out in the requirements in the GLA Act in the preparation of this LIP.

The Public Sector Equality Duty and The Equality Act require councils not to discriminate on the basis of age and ability. Therefore, the roads we live on, or use to get about, need to be usable for all ages and abilities. The Public Sector Equality Duty[6] states that a public authority must, in the exercise of its function, have regard to the need to:

> *"eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act" and "take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it"*

We have taken account of these duties and the legal duties placed on local authorities through the Health and Social Care Act 2012 to promote public health through transport. The Lewisham objectives and programme of schemes reflects our adherence to the principles of health and equality for all in public transport and highways design.

The borough will meet its statutory duty and conduct a Strategic Environmental Assessment (SEA) and, as recommended, an Equality Impact Assessment (EQIA) on the proposals contained in its LIP. The LIP Outcomes and programmes will be assessed for both purposes, and any necessary changes to the LIP will be identified and made.

The SEA Environmental Report, including a non-technical summary, and a draft of the EQIA will be available on the borough's website during the consultation period. The Environmental Report and Environmental Statement, and the final EQIA will

[5] Requirement R5: There is a requirement to undertake a Strategic Environmental Assessment and it is recommended that an Equalities Impact Assessment is also done (which addresses the borough's Public Sector Equality Duty). The boroughs are required to consider whether it is appropriate for the LIP to be assessed against other matters, for example crime and disorder, health, economic and business issues, air quality and climate change.

[6] Equality Act 2010, Public Sector Equality Duty https://www.legislation.gov.uk/ukpga/2010/15/section/149

remain on the website at this link:
https://www.lewisham.gov.uk/inmyarea/regeneration/transport-and-major-infrastructure/Pages/Local-implementation-plan.aspx

LIP approval[7]

The draft LIP was submitted to the Mayor by 16th February 2019 and approved by the Mayor of London in March 2019.

[7] Requirement R6: Boroughs must meet all of the following requirements for the submission of their LIP set out below under the following headings: a. Name of document b. Submitting the document to TfL c. Submission milestones.

2. Borough Transport Objectives

Introduction

This chapter sets out the local context to the Borough's Transport Strategy and LIP. It covers the Borough's detailed interpretation at a spatial level and the local policies and proposals which will help deliver the MTS. The chapter also considers the link between the LIP and other key frameworks against which the borough plans and delivers local services.

The LIP is informed by evidence and analysis of local needs and issues and it is shaped by the wider context of the MTS vision, the MTS Healthy Streets Approach and the MTS policies, proposals and outcomes.

Local context[8]

Lewisham is an Inner London Borough located to the south-east of the city. It is bounded to the north by the River Thames, and bordered by the London Boroughs of Southwark to the west, Greenwich and Bromley to the east and south respectively. It is home to approximately 301,867 people[9], constituting the 4th highest population of the Inner London Boroughs. However, with the 2nd largest land area of 35.15km^2, it has one of the lowest population densities of Inner London after Greenwich and the City of London. Densities vary across the Borough as explained within this section.

[8] Requirement No R7: Boroughs are required to set out the local context including the geographical, demographic and other characteristics of their boroughs, cross-referencing existing policy and context documents as appropriate. Alternatively, please provide web-link(s) to a borough document that contains this information and reference the section and page numbers where this information can be found.

[9] Office for National Statistics (ONS), Mid-Year Population Estimates, 2016

Figure 1: Lewisham Location

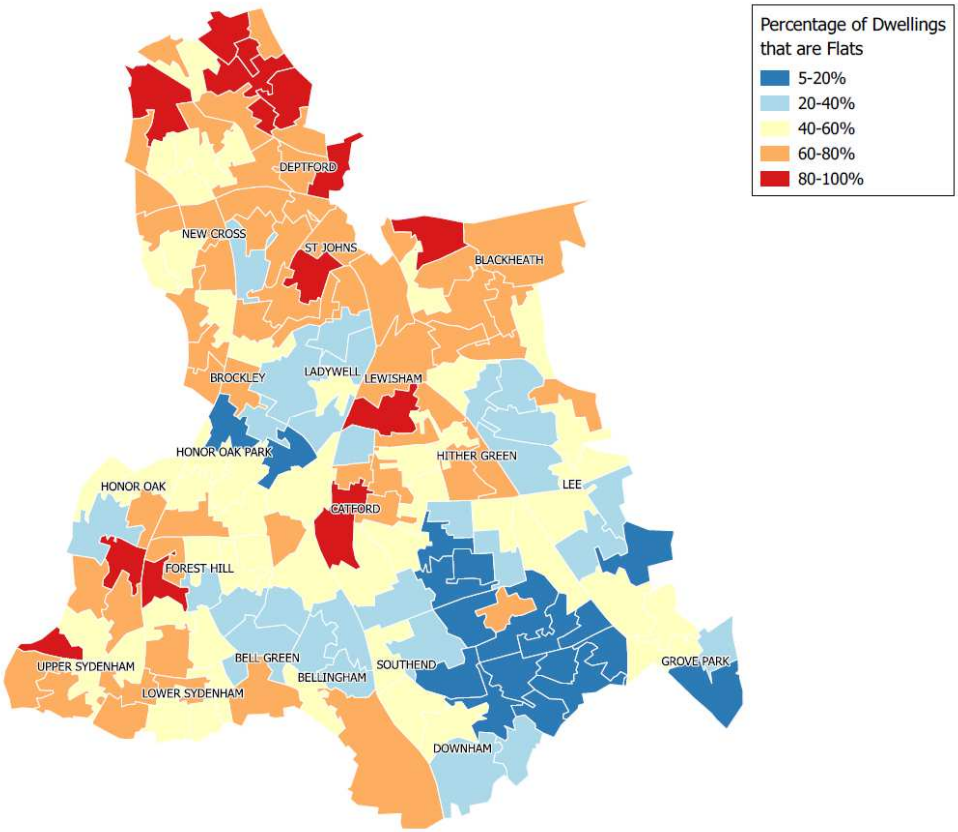
Lewisham is primarily residential in land use, with 44% of the land area comprising domestic buildings and gardens[10]. The Borough is characterised by several local centres, including Forest Hill and Sydenham in the south-west which are more suburban in character, and the more urban centres of Catford, Lewisham and Deptford towards the centre and north of the Borough.

Over half (55%[11]) of dwellings within Lewisham are flats. This is much lower than the average of 74% flatted accommodation within Inner London, and corresponds with the comparatively low population density. As seen overleaf, areas with higher proportions of flatted accommodation broadly correspond with areas of local centres and the Borough becomes more densely populated to the north.

[10] Department for Communities and Local Government (DCLG) Generalised Land Use Database, 2005

[11] Valuation Office Agency, Dwellings by Property Type, 2014

Figure 2*:* Percentage of Dwellings that are Flats



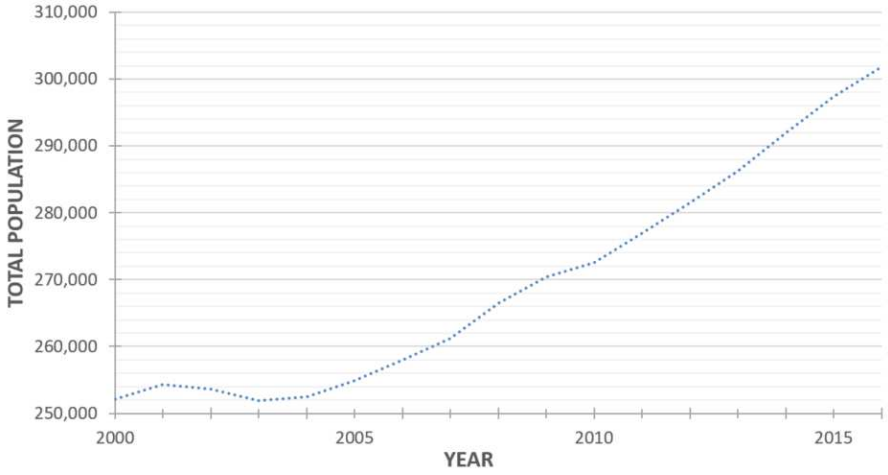
The remaining housing proportions are 32% terraced housing, with under 10% detached and semi-detached housing.

People

As noted previously, the Borough has a resident population of approximately 301,867people[12] based on the latest 2016 estimates. This has increased by 15.6% (40,679 people) over the past 10 years which is slightly below the overall population increase of 16.5% experienced within Inner London. Since 2005, the rate of population change has increased and has been growing relatively steadily since as shown in Figure 3.

[12] Office for National Statistics (ONS), Mid-Year Population Estimates, 2016

Figure 3*:* Lewisham Population Increase 2000 – 2016

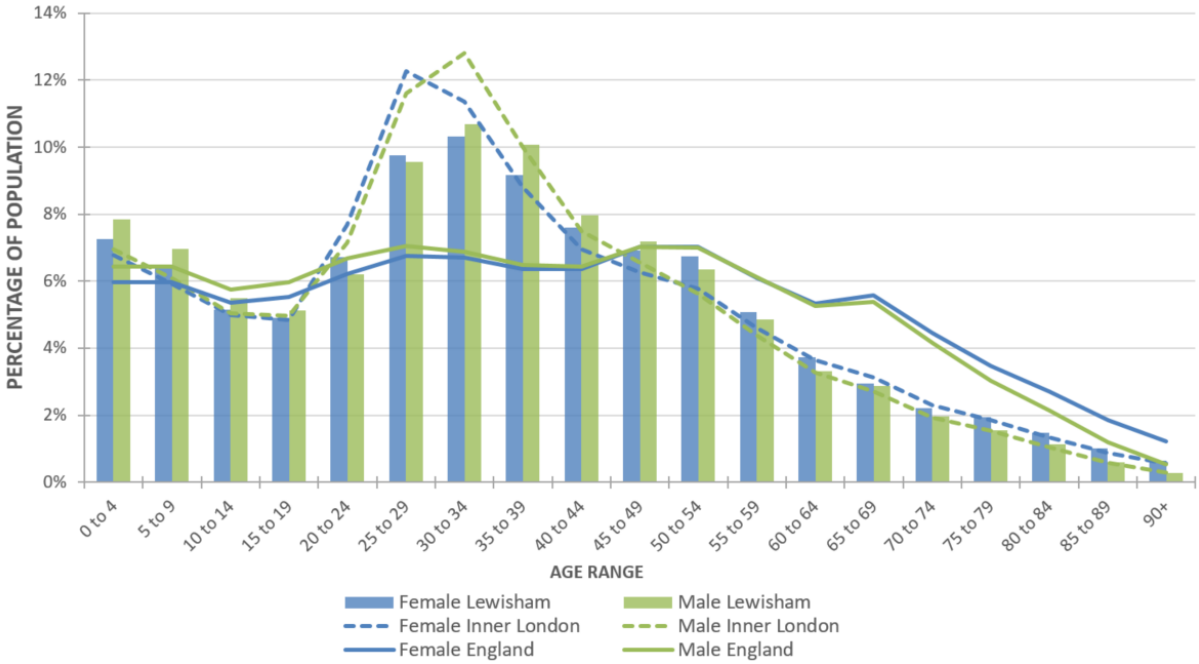


By contrast, the Borough hosts a workday population of approximately 207,571[13]. This figure excludes tourists and includes those who work within the borough, are unemployed, and children. The lower workday population indicates that a higher number of residents leave the Borough to work or go to school than those who enter from other areas.

The average age of Lewisham residents is 35, which is in line with the average for all Inner London Boroughs. The Borough has a relatively young population, with a quarter of residents aged 19 or younger, and just 4% of residents over 75. Figure 4 plots Lewisham's resident age profile against Inner London and England. As shown, the age distribution is broadly typical of Inner London and is stacked towards a younger populace in comparison to England as a whole.

[13] Greater London Authority (GLA), Daytime Population, Borough, 2014

Figure 4: Proportion of Residents by Age and Sex



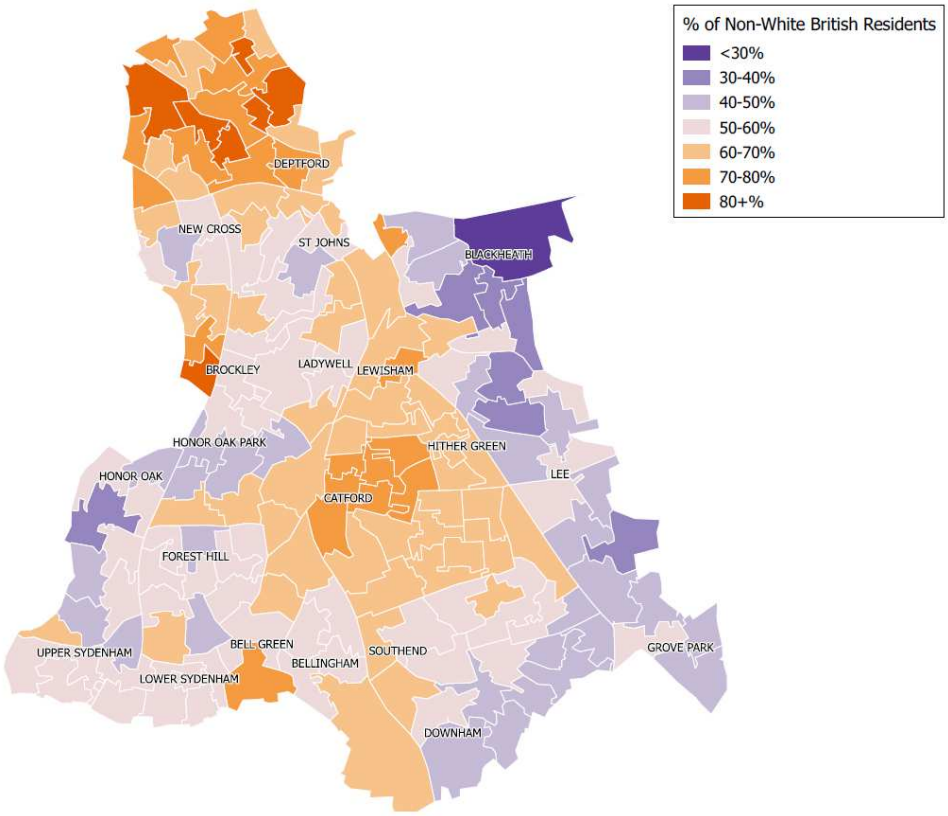
The life expectancy at birth for Lewisham is 79 years for males and 83.4 years for females[14].

Lewisham has a total of 241 individual ethnicities recorded amongst residents during the 2011 Census[15]. This is the highest number recorded within England and Wales. The proportion of non-white British ethnicities is 59%, compared to 58% across Inner London and just 20% in England, with the most ethnically diverse areas located to the north and centrally within the Borough as can be seen in Figure 5.

[14] ONS, Life Expectancy at Birth and Age 65, 2015

[15] Census 2011, QS211EW

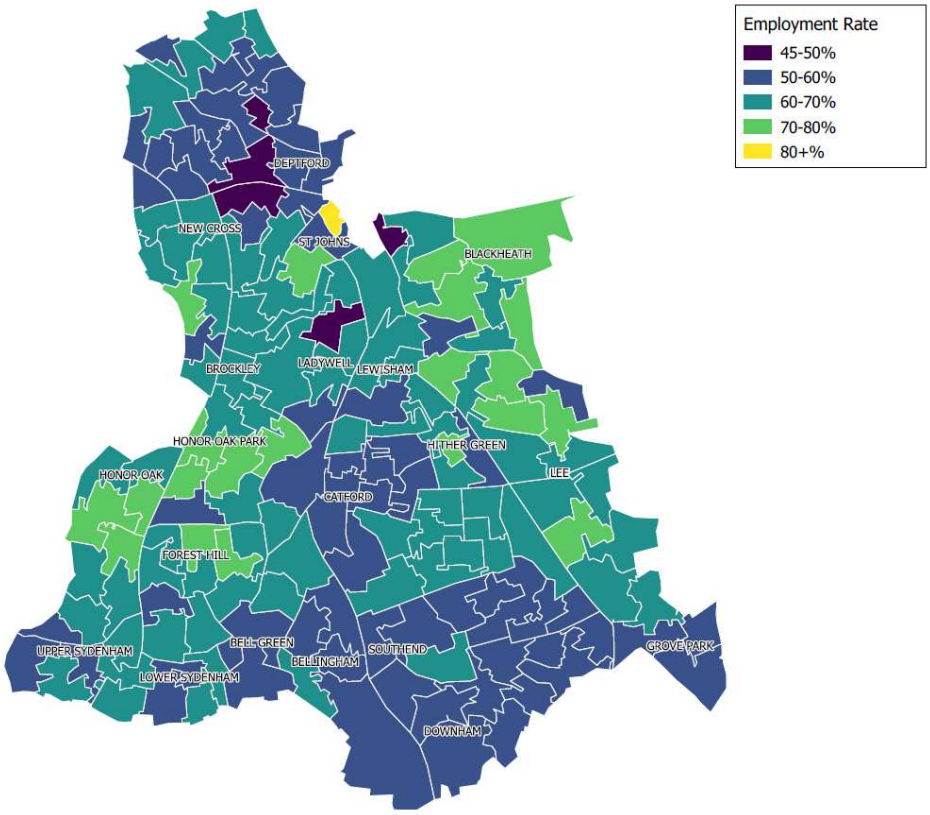
Figure 5*:* Proportion of Non-White British Lewisham Residents



The employment rate for the Borough is comparatively high amongst the working age population, at 83.2% compared to 73.3% for the Inner London average[16]. Figure 6 illustrates the employment rate across the Borough, showing that areas of lowest employment are predominantly to the south of the borough around Downham, Southend and Grove Park, and to the north of the Borough around Deptford.

[16] ONS, Annual Population Survey, 2017

Figure 6*:* Lewisham Employment Rate



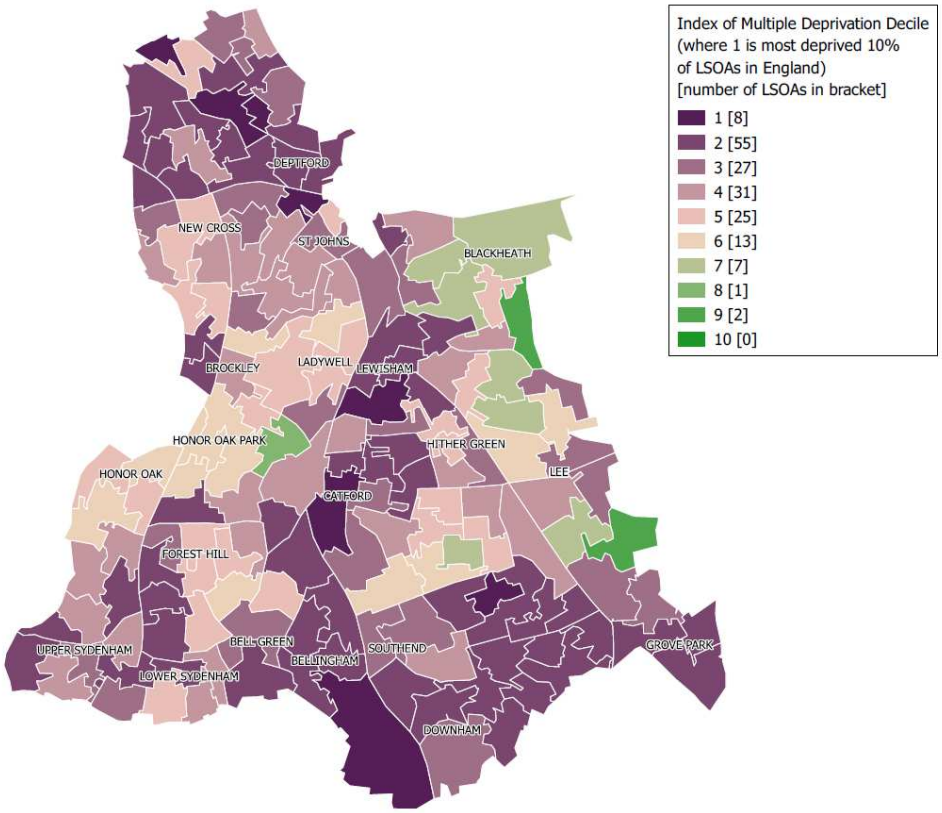
The Index of Multiple Deprivation (IMD) ranks areas Lewisham as the 48th most deprived Local Authority in England[17]. This is an improvement upon the previous 2010 release of IMD ratings, in which Lewisham ranked 31st most deprived of 326 Local Authorities in England. The IMD is based upon indicators of income, employment, education, health deprivation and disability, crime, barriers to housing and services, and living environment. Each indicator is scored and given a weighting which is used as the basis for the IMD.

Figure 7 shows the distribution of IMD decile ratings within the Borough at Lower Super Output Area (LSOA) level. These calculated by ranking each LSOA in England from most to least deprived, and splitting the rankings into 10 equal groups. Each decile is given a rating, with decile 1 comprising the most deprived 10% of LSOAs in England, and decile 10 comprising the least deprived 10%.

[17] Department for Communities and Local Government (DCLG), English Indices of Deprivation 2015 for London

The most deprived areas of Lewisham are mostly located to the north of the Borough, around Deptford and Evelyn; to the south around Beckenham and Downham; and centrally around Catford and Lewisham Centre.

Figure 7*:* Index of Multiple Deprivation Deciles



Air Quality

Lewisham has six Air Quality Management Areas (AQMAs), five covering the entire area to the north of South Circular Road, with the sixth formed the South Circular Road, A212 and A2218. Nine 'Air Quality Focus Areas' have been identified, comprising areas that have high levels of pollution and human exposure[18]. These are detailed further in subsequent sections.

As would be expected, air quality is worst along the Borough's main roads, especially the A21 and A2. Nitrogen Dioxide concentrations are above the EU annual average

[18] Air Quality Action Plan 2016 – 2021, London Borough of Lewisham, page 14

limit[19] on these routes. In addition, Particulate Matter (PM_{10}) is above the World Health Organisation guideline across significant areas of the Borough.

Transport

Lewisham's location within Inner London bordered by the River Thames contributes towards its key position for enabling road, rail, and water transit.

The western side of the Borough has links to the north towards Highbury & Islington, and south towards Croydon via the London Overground East London Line. From May 2016, additional services have been added to the line, increasing frequency by 50% after 22:00 with the aim of providing a 15-minute service. This network, together with five other London Overground routes, forms an outer London orbital network, and links the Borough to a total of 84 stations and 19 London Boroughs via the Overground services alone.

The Docklands Light Railway (DLR) links to the north of the Borough providing access to the key employment centre of Canary Wharf, and links to the Greenwich pier, from which a River Bus service departs approximately 3 times per hour daily.

The Borough also has a total of 21 National Rail stations offering access to Southeastern, Thameslink and Southern services and providing links to stations including Victoria, Charing Cross, London Bridge and Blackfriars.

The network is generally well distributed across the Borough, however there are areas in the south-east and the very north of Lewisham that do not benefit from easy access to rail stations (refer to Figure 26 for a PTAL map of the Borough). Further, most rail routes through the Borough are radial, and opportunities for westbound orbital links are limited to infrequent services from Lewisham Station. Orbital services travelling westbound from Lewisham station travel directly over Brockley Station, however there is currently no platform for passengers to access these services. There are proposals to address this through the 'Brockley Interchange' scheme, providing a platform to allow passenger access to these orbital services at the station.

Lewisham sits on a number of key road links, including the A205 South Circular Road which provides an orbital route around Central London, and the A20 and A2 which are radial routes connecting Central London and Kent with links to the M25 Orbital.

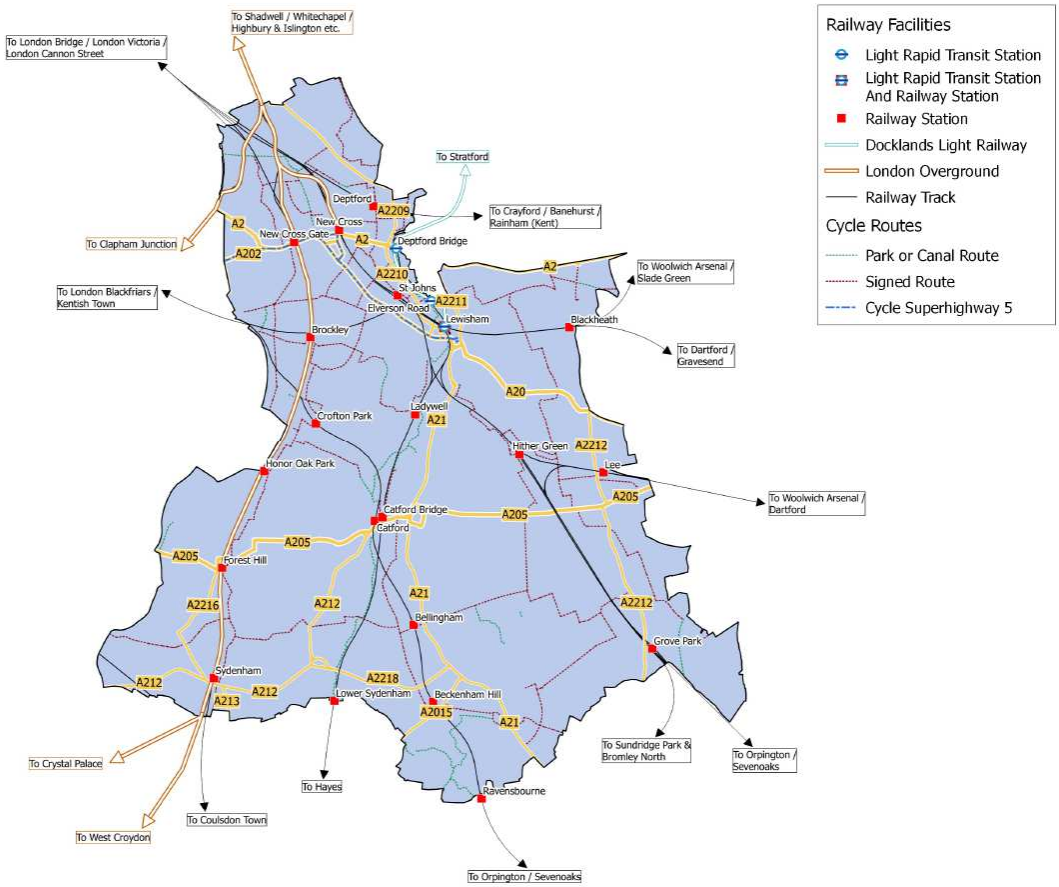
Lewisham has a total of 42 bus routes operated by TfL and predominantly serving the south-eastern Boroughs and Central London. Service frequencies range from

[19] Air Quality Action Plan 2016 – 2021, London Borough of Lewisham

three to 11 buses per hour, with certain links along the A21 and A2 experiencing a cumulation of over 90 buses per hour. Areas to the south and east generally experience a cumulative total of under 15 buses per hour, as fewer services are routed along these links due to their primarily residential nature. Links experiencing the highest bus frequencies are radial, and there is a general lack of orbital bus links, particularly serving the west of the Borough.

Lewisham benefits from an existing network of signed and off-road riverside paths, including the National Cycle Route 21 following the Waterlink Way. Large areas of low movement, local residential streets offer attractive options for less confident cyclists. This is assisted by a Borough-wide 20mph speed limit that was introduced in September 2016 on all Borough-controlled roads. This was introduced to help deliver the Mayor of London's Vision Zero aim to have no fatal or serious injuries on London's roads by 2041 for all road users. TfL has also announced its intention to introduce 20mph on parts of its network.

Figure 8*:* Lewisham Transport



Changing the transport mix

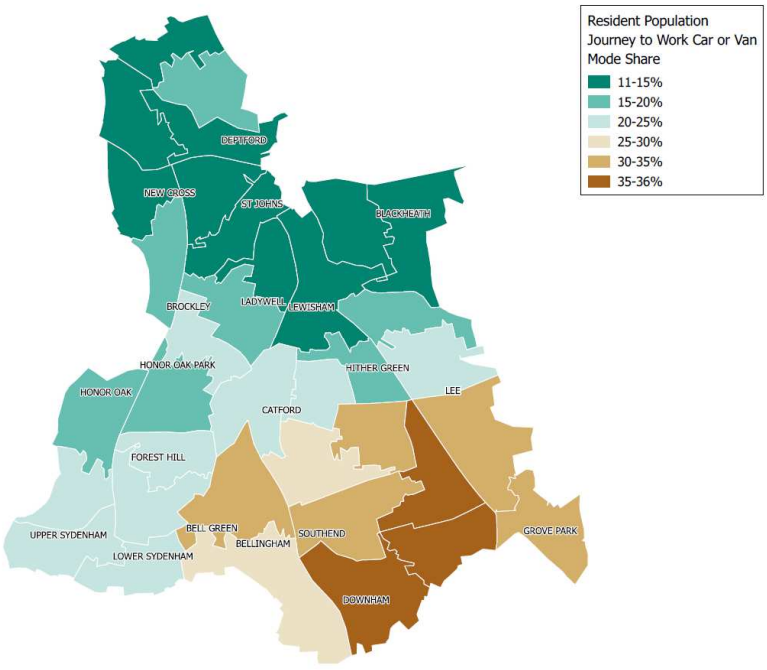
Challenges and opportunities[20]

The existing infrastructure network in Lewisham is one that presents constraints to capacity and ease of movement, but also one that provides several opportunities for improvement and unlocking growth as a result.

The north of the Borough, around New Cross, Deptford and Lewisham, is well served by rail transport. A high density of stations link to frequent services on the DLR, National Rail and Overground. However, the far north and south-east of the Borough is lacking infrastructure with some areas over 1.5km from the nearest station and served only by infrequent (less than 10 minute frequencies) national rail services.

This is reflected in Borough residents' commuting patterns[21] – as shown in Figure 9, the areas of highest journey to work car use are clustered in the areas where rail provision is most lacking.

Figure 9*:* Lewisham Residents Journey to Work Car / Van Mode Share[22]



[20] Requirement R8: Boroughs are required to identify key opportunities for shifting trips and journey stages to walking, cycling and public transport to contribute to achieving the overarching aim for 80 per cent of trips to be made by active, efficient and sustainable modes by 2041.

[21] Census 2011, WU03EW - Location of usual residence and place of work by method of travel to work

[22] Census 2011, WU03EW - Location of usual residence and place of work by method of travel to work

Improving links to the south east would therefore provide the opportunity to make significant steps towards achieving the MTS Outcome 3 of reducing car ownership and use. With this in mind, LB Lewisham support the proposed Bakerloo Line Extension (BLE) to Lewisham, but advocate for its potential extension to Hayes to be implemented as a single phase. This would provide the capacity and frequency of service to support lower car use levels in the south-east of the Borough.

The BLE extension to Hayes would also unlock the potential to implement a stronger orbital bus network. At present, both bus and rail orbital routes are limited making radial movements typically faster than orbital trips. The key orbital road links, such as the South Circular Road, contribute towards orbital trips being more attractive by car. This is evident in commuting patterns to and from Lewisham. The top 10 origins and destinations for Lewisham commuters, and corresponding mode shares are detailed in Tables 2.1 and 2.2 overleaf[23].

Emerging Technologies and Opportunities

The borough recognises that emerging technologies around electric and autonomous vehicles are, over coming years, going to play a bigger part in the borough's transport make up. As a result, the Council are constantly monitoring the development of technologies, emerging best practice and exploring the possibilities of future trials and funding opportunities.

Another possible mechanism available to the borough in the future maybe a form of road user charging. Any use of this type of charging would need to be balanced against the borough's aspirations to reduce traffic at peak times and the needs of the borough's residents and businesses.

[23] Census 2011, WU03EW - Location of usual residence and place of work by method of travel to work

Table 2.1: Top 10 Origins of Commuters to Lewisham

Rank	Origin	% of Commuters	Tube, Light Rail or Tram	Train	Bus, Minibus or Coach	Taxi	Powered Two-Wheeler	Driving a Car or Van	Car or Van Passenger	Bicycle	On Foot	Other
1	Lewisham	38.6%	2.1%	6.1%	27.2%	0.2%	0.5%	29.6%	2.1%	3.7%	28.1%	0.3%
2	Greenwich	10.8%	2.3%	8.1%	33.1%	0.2%	1.0%	42.9%	2.8%	3.2%	6.0%	0.3%
3	Bromley	10.1%	1.2%	10.9%	14.2%	0.2%	1.4%	63.4%	3.3%	2.2%	2.9%	0.2%
4	Southwark	6.4%	3.2%	6.5%	41.2%	0.1%	0.6%	33.3%	1.4%	6.3%	7.0%	0.3%
5	Bexley	5.8%	0.9%	18.8%	11.4%	0.3%	2.4%	61.5%	2.9%	1.1%	0.5%	0.1%
6	Croydon	3.6%	3.7%	19.3%	16.5%	0.1%	1.1%	53.9%	1.8%	1.5%	1.7%	0.3%
7	Lambeth	2.8%	7.7%	14.8%	28.7%	0.3%	1.1%	37.5%	1.6%	6.1%	1.9%	0.3%
8	Dartford	1.4%	0.7%	19.6%	2.4%	0.0%	1.8%	71.2%	3.5%	0.5%	0.1%	0.1%
9	Newham	1.3%	43.9%	16.6%	13.4%	0.1%	0.6%	21.5%	1.0%	1.5%	1.3%	0.1%
10	Wandsworth	1.2%	15.1%	24.3%	14.2%	0.0%	2.1%	25.2%	0.6%	5.8%	12.4%	0.2%
	Overall Mode Share:		5.7%	11.5%	21.7%	0.2%	1%	41.1%	2.3%	3.2%	13.1%	0.3%

Table 2.2: Top 10 Destinations of Commuters from Lewisham

Rank	Destination	% of Commuters	Tube, Light Rail or Tram	Train	Bus, Minibus or Coach	Taxi	Powered Two-Wheeler	Driving a Car or Van	Car or Van Passenger	Bicycle	On Foot	Other
1	Westminster	20.6%	20.5%	57.7%	11.4%	0.1%	1.3%	2.8%	0.2%	5.1%	0.8%	0.2%
2	Lewisham	18.7%	2.1%	6.1%	27.2%	0.2%	0.5%	29.6%	2.1%	3.7%	28.1%	0.3%
3	Southwark	10.6%	5.7%	33.7%	24.0%	0.2%	1.0%	24.1%	1.5%	6.0%	3.7%	0.2%
4	Bromley	5.8%	1.2%	9.0%	33.6%	0.1%	0.5%	45.8%	2.9%	2.1%	4.5%	0.4%
5	Tower Hamlets	5.6%	56.5%	21.6%	4.6%	0.2%	1.1%	8.6%	0.5%	4.8%	1.0%	1.2%
6	Camden	5.5%	22.7%	54.4%	10.6%	0.1%	1.7%	3.8%	0.2%	5.6%	0.7%	0.1%
7	Lambeth	5.4%	6.3%	33.9%	27.0%	0.1%	1.4%	24.1%	0.9%	5.2%	0.8%	0.3%
8	Greenwich	4.9%	5.1%	5.9%	30.2%	0.1%	0.8%	41.6%	1.8%	5.3%	8.8%	0.2%
9	Islington	3.1%	27.4%	48.5%	9.0%	0.2%	2.0%	5.1%	0.4%	5.6%	1.6%	0.2%
10	Croydon	2.0%	8.5%	26.7%	20.1%	0.1%	0.7%	37.9%	1.4%	1.6%	2.6%	0.4%
	Overall Mode Share:		15.2%	30.8%	18.5%	0.1%	1.1%	21.3%	1.3%	4.3%	7.1%	0.3%

Top Mode of Travel

Each London Borough for which the top mode share is private car is located to the east, west and south-east of Lewisham, thereby predominantly requiring orbital routes to be taken to and from the Borough.

To better understand the internal vehicle movements occurring within Lewisham, the same Census data[24] was interrogated to determine the approximate demand of commuters travelling within the Borough by car. The Borough was split into five zones based on groupings of Census Middle Super Output Areas (MSOAs), approximately divided by the Borough's main roads, as follows:

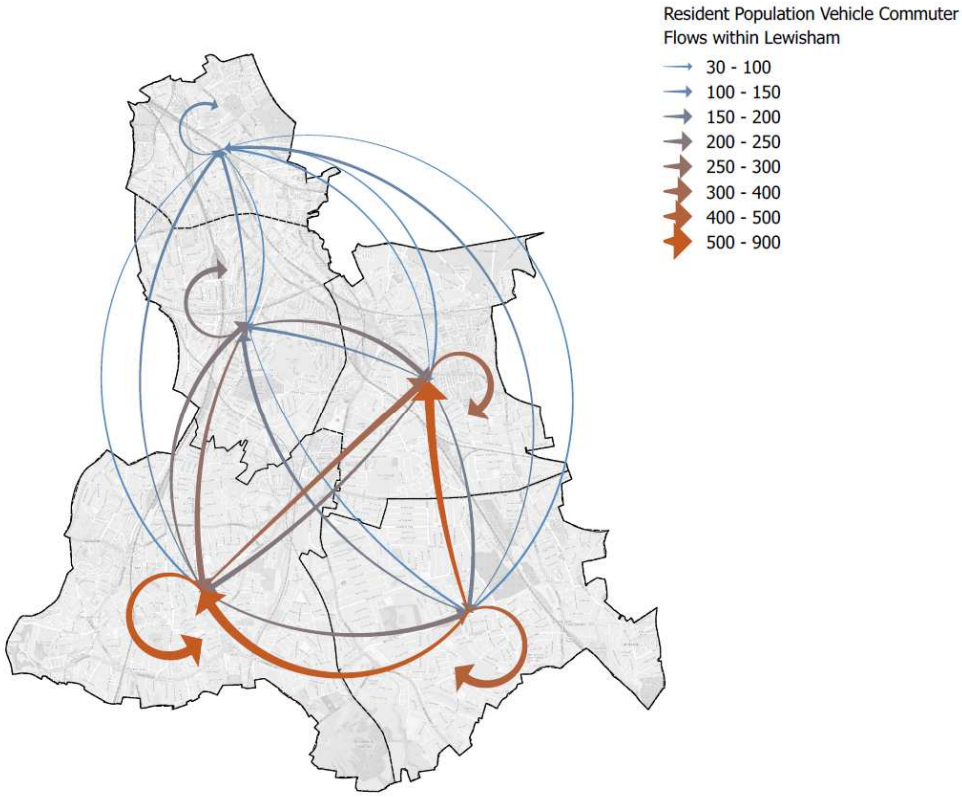
- North: Deptford, New Cross
- Central East: Lewisham, Hither Green, Blackheath, Lee
- Central West: Brockley, Ladywell, Crofton Park
- South East: Catford South, Southend, Downham, Grove Park
- South West: Honor Oak, Forest Hill, Perry Vale, Sydenham, Bell Green

The commuter flow patterns of car drivers between each of these areas are visualised in Figure 10. Whilst the South East generates a high number of vehicle trips, it is not a major trip attractor. The Central East and South West areas attract the highest in-flows of vehicle commuters. This is likely due to the predominant land uses within each area; the South East is predominantly residential, whilst the Central East and South West areas contain Lewisham and Catford respectively, both of which are employment centres. However, by comparison, the areas of higher public transport accessibility to the north demonstrate lower car use to the same areas.

The patterns reflect those of overall car mode share shown in Figure 9, with the smallest numbers of vehicle movements occurring to and from the North. Internal vehicle commuting is concentrated in the South, particularly originating in the South East to the South West and Central East areas, and internally within the South West.

[24] Census 2011, WU03EW - Location of usual residence and place of work by method of travel to work

Figure 10: Lewisham Residents Vehicle Commuter Flows within Lewisham[25]



[25] Census 2011, WU03EW - Location of usual residence and place of work by method of travel to work

The above mode share figures are derived from 2011 Census Travel to Work data. This data provides the most detailed information on a locational basis across the Borough, and these patterns are unlikely to have changed significantly in the interim. The London Travel Demand Survey (LTDS) [26] provides the most recent mode share data for 2014/15 to 2016/17, for all trips taken from the Borough (rather than just travel to work data). These are summarised in Table 2.3, and provide an indication of mode share across the entirety of the Borough for all trip types.

Table 2.3: LTDS Lewisham Trips per Day and Mode Shares

Borough	Lewisham	Inner London
Trips per day (000s)	551	8,343
Rail	9%	7%
Underground /DLR	3%	15%
Bus / Tram	18%	16%
Taxi / Other	1%	2%
Car / motor-cycle	33%	19%
Cycle	3%	4%
Walk	33%	38%
All Modes	**100%**	**100%**

Investment in strengthened orbital routes and interchanges, such as the MTS proposal at Brockley Station, would present the opportunity to influence modal shift for both incoming and outgoing commuters who have limited alternative modes to private car use at present.

Lack of rail infrastructure limits opportunity for similar orbital interchanges to the south of the Borough; however new, reliable and frequent east-west bus routes would provide more viable travel options for commuters living or working in the south. There is also opportunity to supplement the gap in public transport infrastructure with active travel, and the predominantly quieter, residential street types lend themselves to the implementation of Quietway routes.

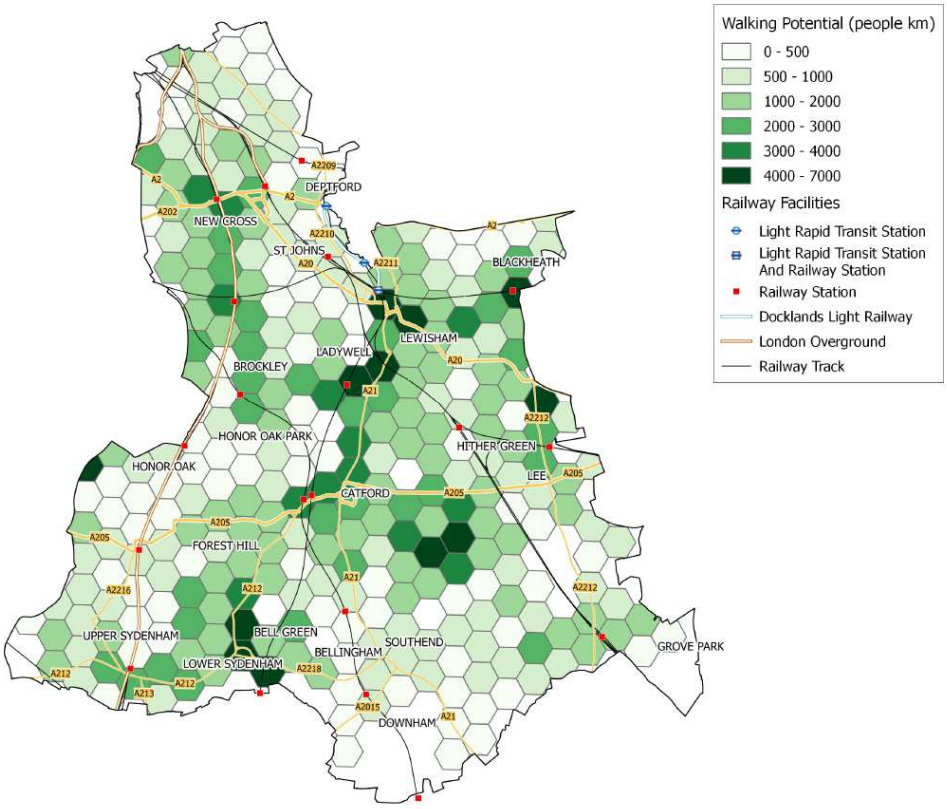
Figure 11 and Figure 12 illustrate the level of walking and cycling potential across a 350m hex grid in the Borough. These are derived from the London Travel Demand Survey (LTDS), and represent trips that could reasonably be walked or cycled, but are not at present. The trip data is plotted along the road network for walking potential, and using link data assigned by the Cycle Network for London (Cynemon)

[26] LTDS, Londoners' trips by borough of origin, trips per day and shares by main mode, average day (7-day week) 2014/15 to 2016/17.

model by TfL for cycle potential. The total walk or cycling trip length in km is then summed per cell to calculate the walking and cycling potential.

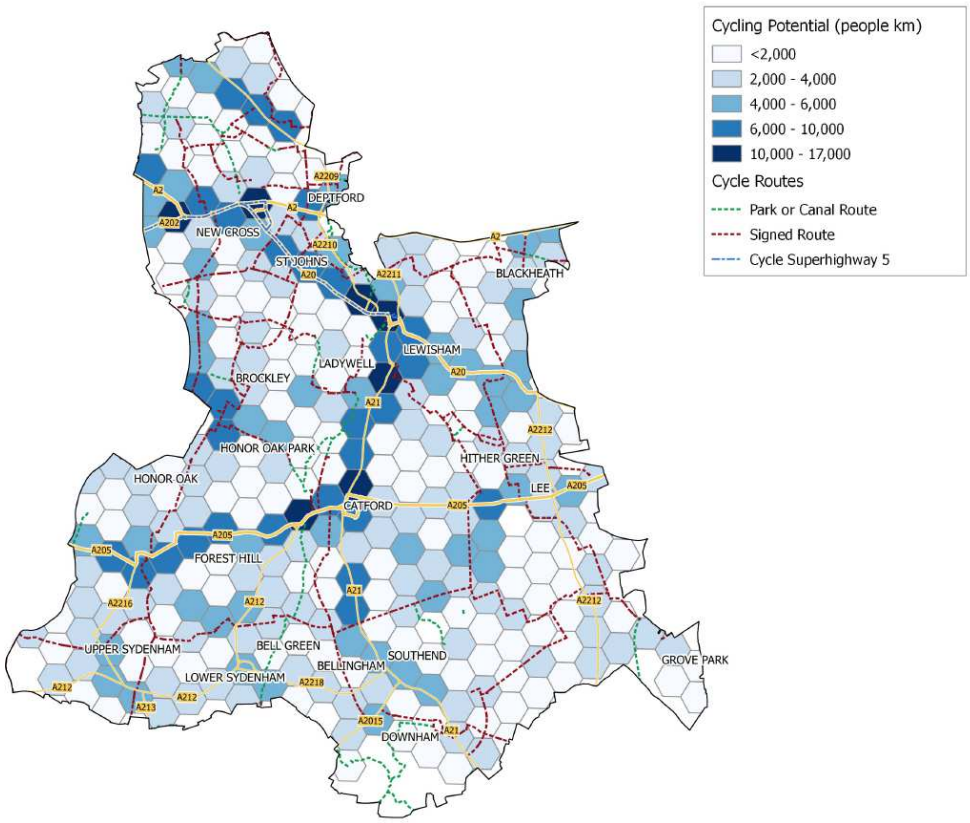
As can be seen, potential cycle trips are concentrated along the major road network and potential walking trips are more widely distributed across the Borough. The south-east of the Borough has fewer potential walking and cycling trips bring made. However, this is likely to be due to a lower population density (see Figure 2) and more dispersed goods and services, rather than higher existing pedestrian and cycle mode share. Providing effective active travel links to public transport access points will provide opportunities for multi-modal journeys, incorporating walking and cycling in to longer-distance journeys.

Figure 11*:* Potential Walking Trips[27]



[27] TfL City Planner Tool: Walking Potential (LTDS Switchable trips 2010-15)

Figure 12*:* Potential Cycling Trips[28]



The gathering of real, meaningful data about the travel habits of Lewisham residents is an ongoing challenge, however if successful provides the opportunity to gain a true understanding of influences to travel habits and how to improve them. Travel plans can provide an invaluable tool in data gathering for schools, workplaces and residential developments. Whilst there is the tendency for travel plans to become a 'tick-box' exercise, Lewisham recognises their potential value when used in an effective manner, in gaining real and true understandings of motivating and limiting factors in travel behaviour. Further, the Commonplace consultation tool allows the public to directly submit ideas, and identify issues and opportunities in the Borough using their local knowledge and day-to-day experience of the transport network.

Using these data-gathering exercises allows for direct feedback from the users themselves. Mode-shift incentives can then be tailored directly to feedback from those who are affected, allowing the biggest chance at addressing the limiting factors to sustainable travel in a local and user-oriented way.

[28] TfL City Planner Tool: Cycling Potential (LTDS Switchable trips 2010-15)

Borough objectives[29]

Our objectives align and assist with meeting the Mayor's Transport Strategy aim of increasing the sustainable travel mode share. Specific outcome indicators are included to aid delivery of the LIP objectives.

The four priority objectives and outcomes are summarised below, with reference to the aligning MTS outcomes.

Lewisham LIP		MTS Outcomes
Objectives	Outcomes	
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 Reduced ownership and use of private motor vehicles Improved public transport links to the south, including the delivery of the Bakerloo Line Extension Creation of new orbital public transport connections and improved interchange	1, 3, 7, 6
Lewisham's streets will be safe, secure and accessible to all	Improved safety and security will increase social inclusion and encourage walking and cycling 100% of all feasible bus stops will be brought to TfL accessible standards Increase number of step-free rail stations Eliminate fatal and serious collisions on Lewisham's roads	2, 6
Lewisham's streets will be healthy, clean and green with less motor traffic	Reduce air pollution from road traffic Encourage switch to electric vehicle use and reduce car ownership in absolute terms Reduce traffic levels, congestion and vehicle idling and encourage active travel More street trees to promote carbon capture	3, 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 Work with TfL and Network Rail to increase public transport capacity in the Borough, to support growth	5, 8, 9

[29] Requirement R10: Boroughs are required to set objectives that explicitly assist with meeting the Mayor's Transport Strategy aim of increasing the sustainable travel mode share.

Mayor's Transport Strategy outcomes[30] [31]

The following section outlines the local challenges and opportunities for Lewisham in the context of the nine MTS outcomes, and details how Lewisham can contribute towards the achievement of the outcomes. Outcome indicators have been detailed within the MTS with measurable targets for 2021 and 2041 for outcomes 1 to 7. These vary by borough. Lewisham's specific indicator targets have been detailed in the following sections under 'MTS Borough Objectives', and are also summarised as follows:

Outcome		Current	2021	2041
80% walking, cycling, public transport		***68%***	***72%***	***81%***
Outcome 1: London's streets will be healthy and more Londoners will travel actively				
Target 1a: % of residents doing at least 20mins of active travel		37%	44%	70%
Target 1b: % of residents within 400m strategic cycle network		4%	19%	71%
Outcome 2: London's streets will be safe and secure				
Target 2: Vision Zero (KSI)		67	48	0
Outcome 3: London's streets will be used more efficiently and have less traffic on them (annual vehicle km)				
Target 3a: Reduce the volume of traffic in London (annual vehicle kilometres (millions))	low: -15% by 2041	766	747	635
	high: -20% by 2041	766	747%	598
Target 3c: Reduce car ownership (no. of cars owned)		79, 792	75,100	67,800
Outcome 4: London's streets will be clean and green				
Target 4a: CO2 (tonnes)		155,200	132,000	34,800
Target 4b: Nox (tonnes)		610	200	30
Target 4c: PM10 (tonnes)		54	44	24
Target 4d: PM2.5 (tonnes)		30	21	12
Outcome 5: The public transport network will meet the needs of a growing London				
Target 5: PT Use (Trips per day (000s))		222	255	331
Outcome 6: Public transport will be safe, affordable and accessible to all				
Target 6: Step-free journey time (% change between 2015 and 2041)				-51%
Outcome 7: Journeys by public transport will be pleasant, fast and reliable				
Target 7: Bus Speeds (mph) 15% overall reduction	high: +15% by 2041	9.2	9.6	10.6
	low: +5% by 2041	9.2	9.3	9.7

[30] Requirement R9: Boroughs are required to set out local issues, challenges and opportunities within the context of contributing towards the achievement of the nine Mayor's Transport Strategy outcomes and the relevant polices and proposals.

[31] Requirement R11: Boroughs are required to identify a set of locally specific LIP objectives that contribute to achieving the nine outcomes of the Mayor's Transport Strategy, and the relevant policies and proposals.

For outcomes 8 and 9, this section provides detail on how Lewisham will contribute towards achieving them.

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

Challenges and opportunities

Lewisham has an ambitious vision for the future of cycling in the Borough, and wants to become one of the easiest and safest places to cycle in London. The Lewisham Cycle Strategy (2017) details four key targets:

- Double the number of cycling journeys
- Increase the proportion of employed residents cycling to work to 10%
- Halve the casualty rate of cyclists
- Increase the number of children cycling to school by 50%

The potential for cycling to grow in Lewisham is great. There are 282,600 trips made daily by Borough residents that are potentially cyclable, and 93.5% (264,200) of these are being made by other modes[32].

Despite an existing upward trend in commuter cycling levels, there is potential to accelerate the trend to rival other Inner London Boroughs which have experienced significant growth as evidenced by the Census 2001 and 2011 data[33],

Lewisham benefits from an existing network of signed and off-road riverside paths, including the National Cycle Route 21 following the Waterlink Way, and large areas of low movement, local residential streets that offer attractive cycling for less confident cyclists.

The demographic of Lewisham residents also lends itself to a potential willingness to change habits towards cycling. Almost 40% of Lewisham residents are aged between 20 and 39, which is the most popular age range for regular cycling. 18% of residents have reported cycling at least once per month[34]. This proportion of the population having existing experience of cycling is encouraging. Though infrequent, it indicates a proportion of the population are willing and confident enough to cycle

[32] Analysis of Cycling Potential, Transport for London, 2016

[33] Lewisham Cycle Strategy, London Borough of Lewisham, p12, 2017

[34] Walking and Cycling by Borough, Department for Transport, 2015/2016

and pre-existing level of confidence that can be built upon to encourage more regular use, or perhaps a move away from recreational to cycling for transport.

One of the most significant barriers to cycling is the perception of safety, and fear of traffic. The Lewisham Cycle Strategy (2017) identifies 'fear of being involved in a collision', 'too much traffic', and 'lack of confidence' as the main deterrents for those taking up cycling. By comparison, the fear of being involved in a collision is more than 10% lower, and lack of confidence is less than half the number as a deterrent to cycling more amongst existing cyclists.

Perceived and real concerns are equally significant in deterring cycling and need to be addressed. Solutions which provide protection and continuity without delays are likely to be attractive for the majority. This type of provision for cycling will mean re-allocating road space away from motor vehicles, and reducing on-street car parking (both of which can be contentious).

Walking trips make up almost a quarter of journeys per day in London[35]. Creating a better walking environment in Lewisham will connect communities, increase social inclusion and provide people with a chance to enjoy their local area.

Current barriers to walking in London predominantly relate to traffic and safety. 21% of Londoners say too much traffic is a barrier to walking, and 14% say traffic travelling too fast is what stops them walking more[36]. Reducing levels of traffic in Lewisham will improve environments that can otherwise be intimidating and unpleasant for pedestrians, alleviating these current barriers to walking.

The Council is also committed to creating appealing environments for walking. Providing visual interest, greenery and other features can encourage people towards walking by providing a leisure aspect to their journey.

Schemes such as these have the potential to encourage modal shift away from the car in the south-east of the Borough. With a comparatively sparse public transport network in the south, many trips that are too far to walk are likely to be made by car. This is reflected in car-commuting patterns as shown in Figure 9 previously. The number of potential walking trips is low in the area (see Figure 11). However, the residential character and high car use indicates that this is caused by a lower density of goods and services, requiring trips beyond walkable distances, rather than an

[35] Walking action plan: making London the world's most walkable city, TfL, 2018, page 19

[36] Walking action plan: making London the world's most walkable city, TfL, 2018, page 27

existing high walking mode share. However, in lieu of a significant step-change in public transport provision, creating attractive walking corridors can encourage a shift towards multi-modal journeys from the south. The Lewisham Spine (A21 Healthy Streets Corridor) proposals will unlock this potential by linking the south of the Borough to the better-connected public transport infrastructure to the north. The Borough also intends to improve walking and cycling links to Beckenham Palace Park, including considering the potential of re-routing the National Cycle Route 21 through the park. The Council would like to see improved cycle facilities along the South Circular road (managed by TfL), which would strengthen provision for currently under-served orbital movements in the Borough. However, there are a number of challenges to be overcome, particularly in terms of constraints on road space.

These proposals would better link the south of the Borough to the park, but there is also opportunity to incorporate better links to the neighbouring Ravensbourne and Beckenham Hill rail stations.

High concentrations of potential walking trips are also focussed around Lewisham Centre, Ladywell, Blackheath Station, Burnt Ash, Lower Sydenham and around Torridon Road / Dowanhill Road. The Council has identified schemes for pedestrian improvements at Lewisham town centre[37] and Burnt Ash Road, and will investigate opportunities for further capitalising on areas with high walking potential to encourage mode shift.

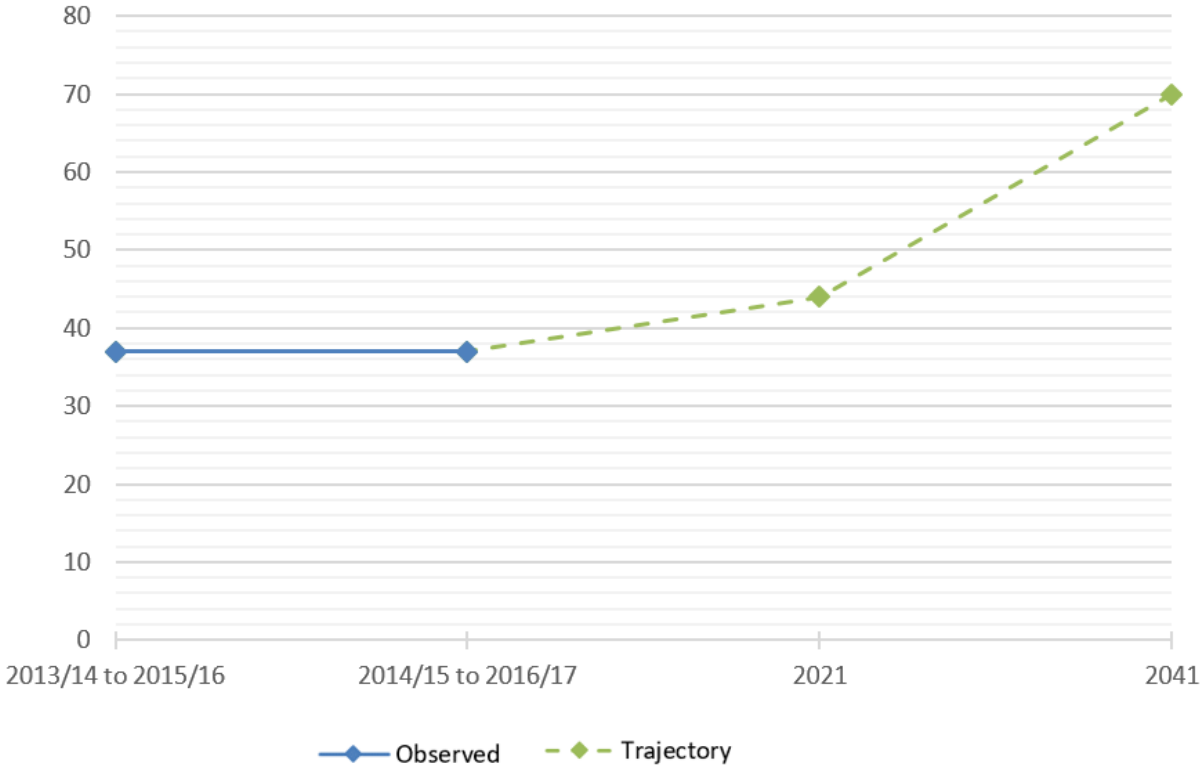
[37] Lewisham Town Centre Local Plan, London Borough of Lewisham, February 2014

MTS Borough Objectives

Outcome 1a: Londoners to do at least the 20 minutes of active travel they need to stay healthy each day

The majority (70%) of Lewisham residents will report doing at least two x 10 minutes of active travel a day by 2041, as evidenced through the London Travel Demand Survey (LTDS).

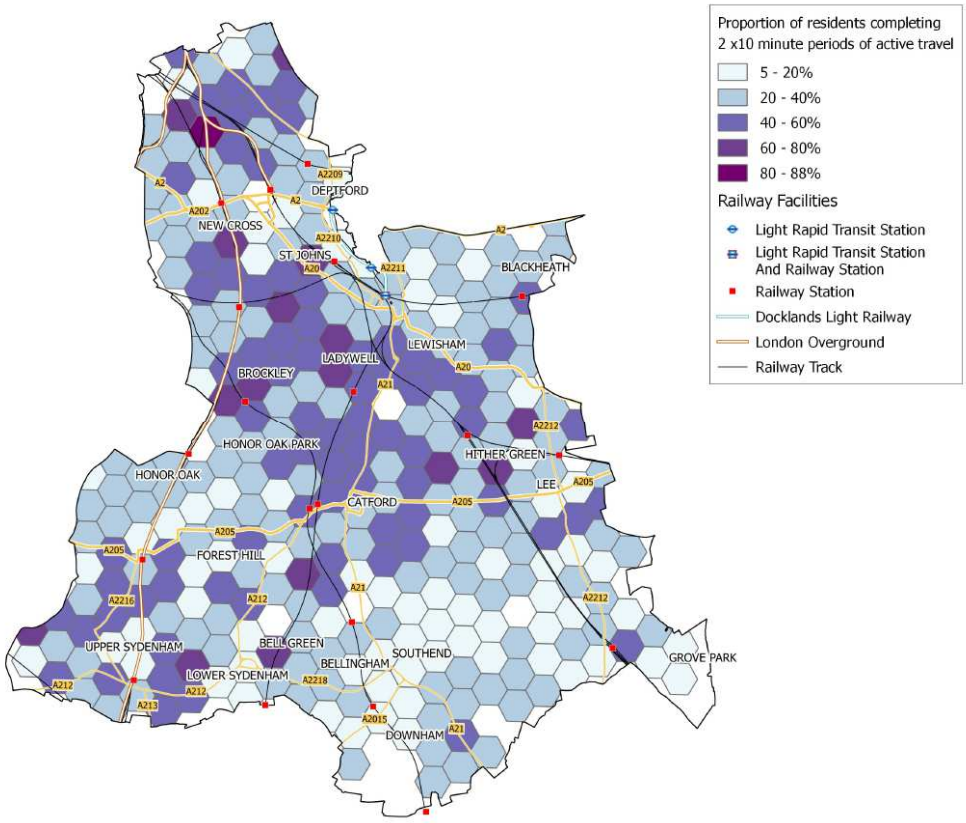
Chart 1: Percentage of residents doing at least two x10 minutes of active travel a day



Source: LIP3 MTS outcomes borough data pack v1_1

Figure 13 illustrates the distribution of residents currently meeting this target across the borough. The dataset represents the proportion of residents who report completing 2 x 10 minute periods of active travel (walking and cycling) on an average day, as derived through the LTDS from 2005/06 to 2015/16.

Figure 13: Proportion of Residents completing 2x10 minute periods of active travel[38]



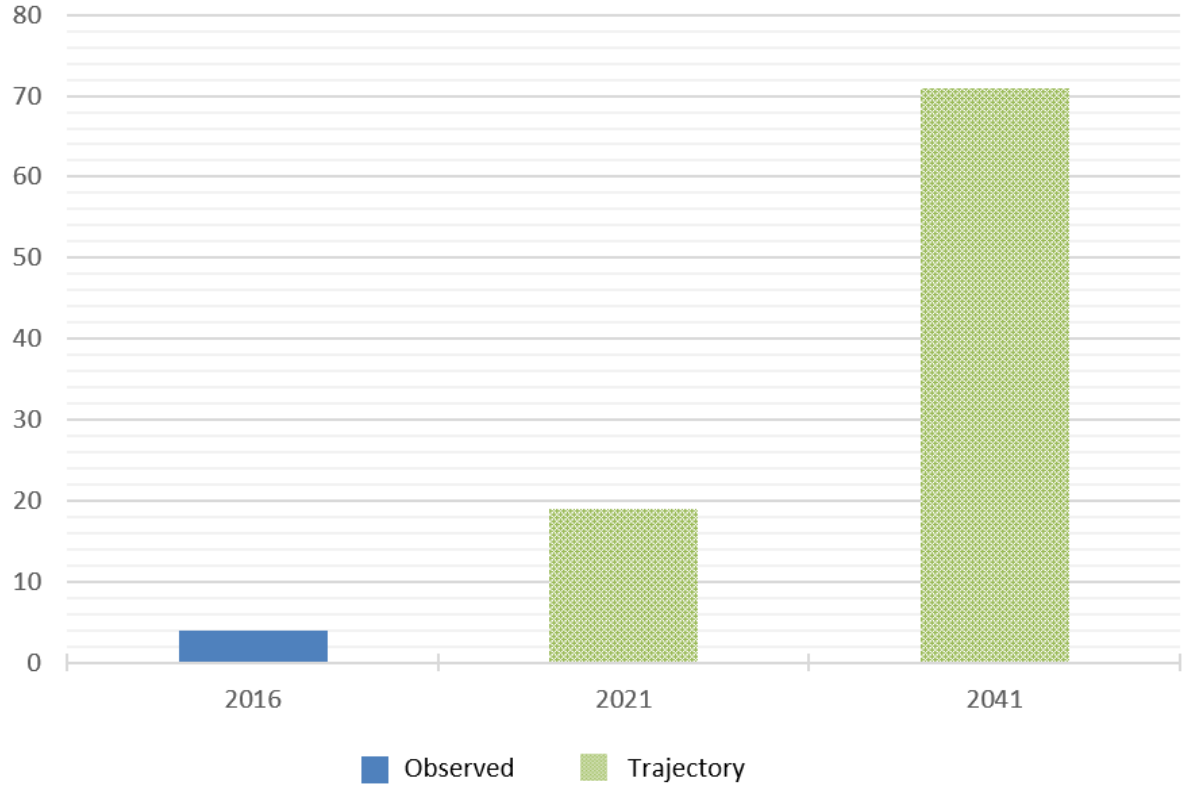
The data shows that areas of higher public transport accessibility (see Figure 26 for a map of PTAL) and lower car use (see Figure 9) typically have a higher proportion of active travel users. This is likely due to higher instances of multi-modal journeys associated with accessing public transport. The aspiration of this LIP to increase active travel links to public transport access points within the south of the Borough, where active travel is shown to be lowest, will therefore assist in achieving this outcome.

[38] TfL City Planner Tool: 2x10 minute trips 2005/06 to 2015/16

Outcome 1b: Londoners have access to a safe and pleasant cycle network

The majority (71%) of Lewisham residents will live within 400m of the strategic cycle network (SCN) by 2041, measured via GIS analysis of the cycle network.

Chart 2: Percentage of population within 400m of strategic cycle network

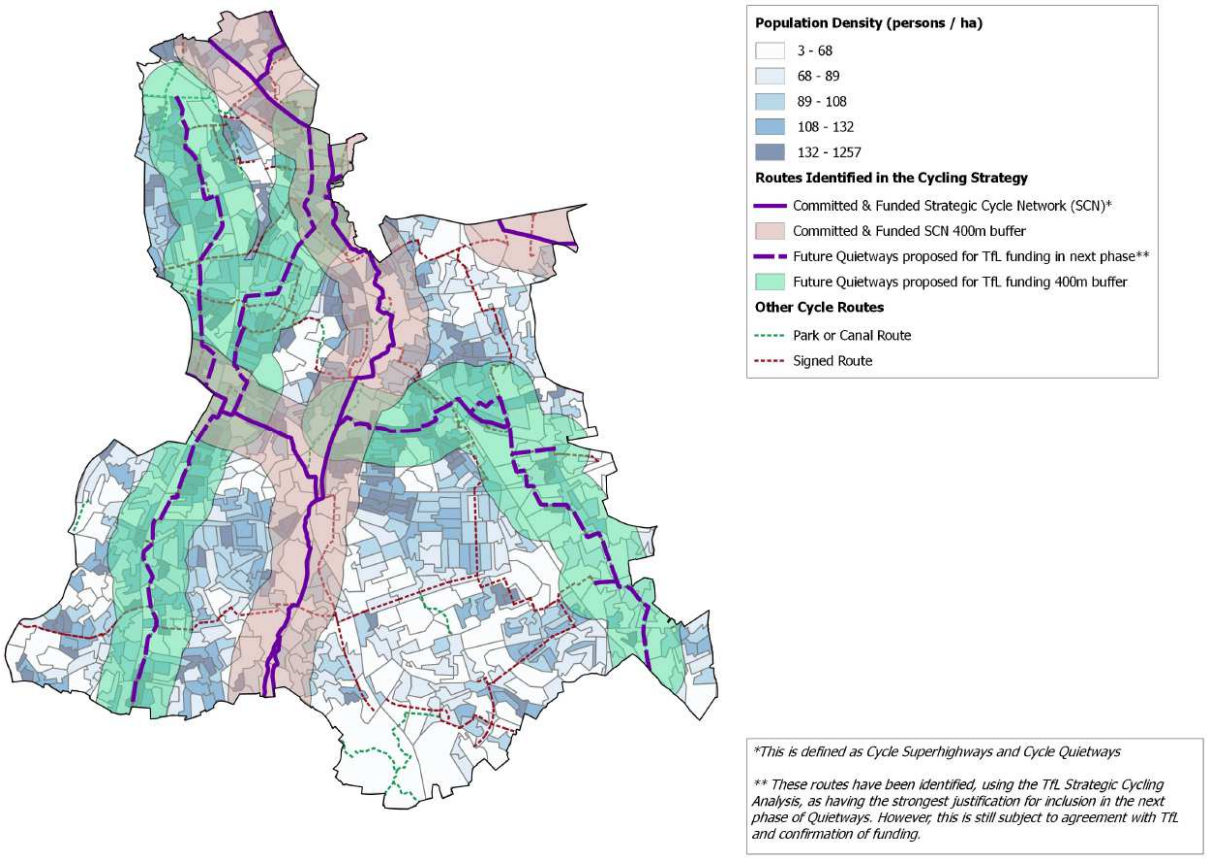


Source: LIP3 MTS outcomes borough data pack v1_1

An initial GIS analysis has been undertaken to assess how Lewisham might progress towards achieving these targets, and where investment will be needed up to 2041.

Two future scenarios have been tested by plotting the potential SCN under each scenario and extracting the proportion of Lewisham's population living within a 400m buffer of the routes. This has been achieved using Census 2011 population data at Output Area level. It is expected that the results of this analysis may be higher in reality, as many areas that have experienced significant population growth since 2011 lie within the 400m buffer zones.

Scenario 1: Committed and Funded SCN + Future Quietways Proposed for TfL funding



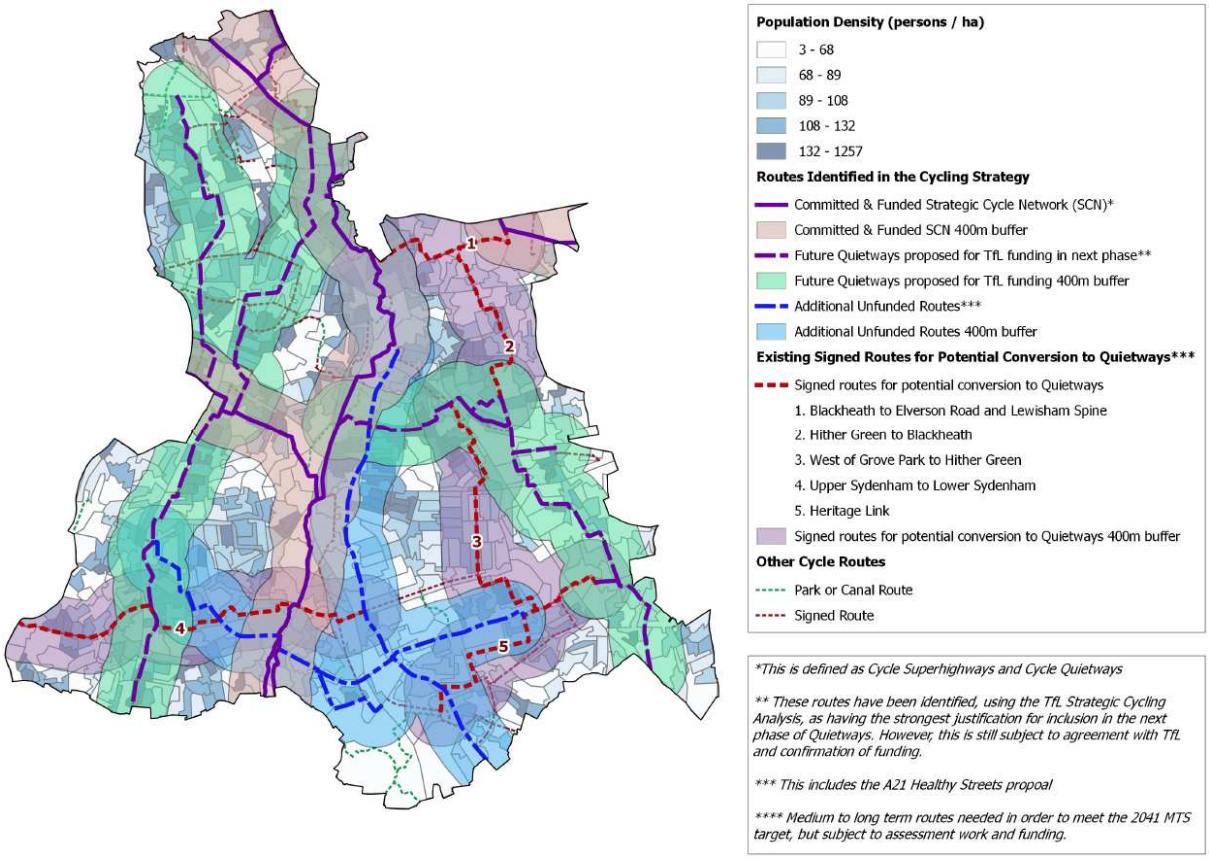
The above analysis plots what is considered to be realistically achievable by 2021. This includes committed and funded Quietways and CS4, as identified in the Lewisham Cycle Strategy[39]. It also includes additional unfunded Quietways identified within the strategy which have been identified by TfL as aligning with their strategic priorities.

One exception is the inclusion of the Quietway extending from Lee to Grove Park, to the south-east of the Borough. This has not been identified by TfL's strategic analysis as a priority. However, the Council recognises a need for provision in this area to achieve an uptake in walking and cycling, as the area currently experiences a low PTAL and high car usage. Delivering this section of Quietway would therefore assist in achieving the MTS targets. This would be supplemented by further routes in this part of the Borough in future years.

[39] Lewisham Cycle Strategy, London Borough of Lewisham, 2017, page 31

Under this scenario, approximately 45% of Lewisham's population would lie within 400m of the SCN.

Scenario 2: All routes identified in Lewisham Cycle Strategy and Existing Signed Routes for Potential Conversion to Quietways



The above analysis plots what may comprise the SCN by 2041, at a preliminary level. This includes all routes identified within the Lewisham Cycle Strategy[40], including routes that have not been identified by TfL as priorities at this stage. It also includes an additional five existing signed routes that have been identified by the Borough for further investigation for conversion to Quietways.

Under this scenario, approximately 67% of Lewisham's population would lie within 400m of the SCN.

As noted previously, this assessment provides a level of robustness, as the 2011 population figures do not account for recent population growth that has occurred within the 400m buffer areas. The aspiration of the Council would be to phase the

[40] Lewisham Cycle Strategy, London Borough of Lewisham, 2017, page 31

implementation of these potential conversion routes over the next 10-20 years. Therefore, this scenario could be achievable prior to 2041, and any shortfall against the MTS outcome of 71% could be investigated and appropriate measures taken to achieve the target.

Outcome 2: London's streets will be safe and secure

Challenges and opportunities

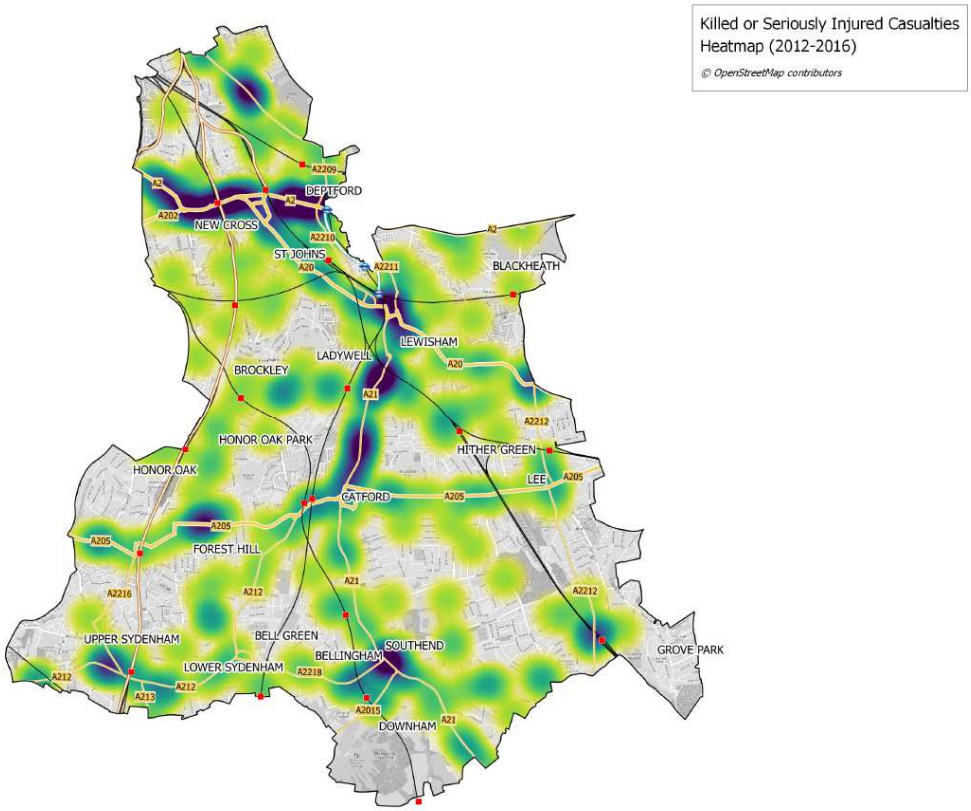
A Collision Analysis of Lewisham casualty data for the calendar years of 2012 to 2016 has been carried out to identify; who is involved in collisions, their modes of travel and locations where collisions involving these people are prevalent. This analysis allows officers to programme schemes that aim to reduce both the number and severity of casualties.

The Full Analysis and findings can be found in Appendix D however a summary of the findings is provided below:

- A total of 5,040 casualties were recorded in LBL between 2012 and 2016. This included 329 serious casualties and 20 fatalities.
- There has been a significant drop in KSI casualties since 2013 – this is a pattern in evidence throughout Inner London. However, LBL will need to reduce KSI casualties by a further 23 (compared to 2016 levels) in order to meet the 'Vision Zero' targets for 2022.
- There is evidence of a slight rising trend in the number of casualties was observed although this is not considered a significant trend with casualties tending to fluctuate.
- A general increase in the number of P2W casualties has been and this will be a key focus in LBL delivering Vision Zero targets
- The number of cycle casualties was found to be significantly below (Chi-squared) the levels expected compared to the rest of Inner London. However, prevailing levels of cycling (lower than some Inner London areas) in LBL was likely a key factor in this. As cycling levels, careful attention will be required to minimise cycle casualties.
- Overall, there has been a decline in KSI casualties with levels significantly dropping since 2013 (no clear attributable reason as to why). This was a part of a wider Inner London trend.
- An approach to the data described in this note (RI) suggested cycle casualties to be most out of line with expected levels based on assumed exposure/estimated modal split. P2Ws were also found to be 'at risk'

- The RI approach indicated males, age 16-24, to be the most ‘at risk’ category compared to the relative proportions of these groups in London population estimates – this was particularly apparent with P2W casualties
- The number of P2Ws involved in pedestrian casualties appeared much higher than expected based on average levels of P2W use
- Goods vehicle involvement in all vulnerable road user casualties was high when compared to the expected volume of goods vehicles on the network
- At total of 20 fatalities were recorded during 2012-2016. 60% involved a pedestrian, 15% involved a P2W and 10% involved a cyclist
- 35% of all fatalities recorded involved a heavy goods vehicle
- The majority of casualties occurred at junctions – particularly priority giveway junctions
- The majority of casualties occurred on the major A road network
- Heat maps produced indicate the main concentration of casualties are on the major routes of the A21, A20 and A2, which are all managed by Transport for London.
- The highest density of pedestrian casualties occurred in areas of high activity – close to transport interchanges or the high street areas of Lewisham, Catford and New Cross
- Other than the main routes noted above, there were other notable concentrations of cycle casualties on the A200 (Deptford Park) and around Forest Hill Station (A205).

Figure 14*:* KSI Collision Heatmap



All collisions involving a casualty who was killed or seriously injured (KSI) on Lewisham's streets between 2012 and 2016 has been mapped and analysed by density, in Figure 14. As can be seen in the heatmap above, the highest densities of KSI collisions occur on the Transport for London Road Network (TLRN) – the A21, A20 and A2. Analysis also indicates that the majority of casualties occurred at junctions – particularly priority giveway junctions. The highest density of pedestrian casualties occurred in areas of high activity – close to transport interchanges or the high street areas of Lewisham, Catford and New Cross. Other than the main routes noted above, there were other notable concentrations of cycle casualties on the A200 (Deptford Park) and around Forest Hill Station (A205).

There has been a significant shift from TfL in the approach to safety on the roads which is recognised in the MTS – a shift from 'road safety' to 'road danger reduction'. This is not a simple switch of terminology but a fundamental shift in approach, policy and action. Historically, 'road safety' has leaned towards accommodating driver behaviour often at the expense of freedom of movement, or convenience, of pedestrians or cyclists. This type of approach is not sustainable, with the vast majority of casualties still occurring on the most heavily trafficked roads. Studying behaviour, analysing the interactions between road users and understanding the

impact of traffic on all aspects (including road danger) of Lewisham as a 'place' will be imperative in achieving the goals of a safer more sustainable borough. It now has to be acknowledged that strategic management of the road network, reducing traffic levels and moving the balance towards cleaner and more sustainable modes (as set out in Outcome 3 of this document) will also play a hugely important role in reducing road danger and the MTS now provides a policy context in which to achieve this. This approach marries with Lewisham's ongoing ambitions to reduce traffic and encourage more active travel.

As can be seen from the data, Lewisham has experienced a higher instance of fatalities involving powered-two-wheelers (P2Ws) than active modes, as shown below[41]:

Mode	% of all KSIs
Car	53%
Taxi	1%
Minibus	0%
Motor cycle up to 125cc	9%
Motor cycle over 125cc	9%
Light Goods	6%
Heavy Goods	1%
Bus	8%
Cycle	12%
Other	1%

The highest proportion of P2W casualties on specified routes occurred on the A21, A205, and A2[42]. These routes are on the Transport for London Route Network and are the Borough's most heavily trafficked. Whilst higher numbers of P2Ws will naturally lead to higher casualty numbers, it is also likely that congestion plays a part on these links as this is when unpredictable movements such as weaving and undertaking are most likely to occur. There is also some evidence that P2W behaviour has resulted in casualties amongst other modes, with a high number of pedestrian casualties occurring due to being struck by a P2W in relation to the number of P2W on the roads.

[41] Lewisham Motorcycle Study, Road Safety Analysis, 2016, page 11

[42] Lewisham Motorcycle Study, Road Safety Analysis, 2016, page 28

The high occurrence of P2W casualties on busy/major roads highlights the need to also consider vulnerable motor vehicle users in conjunction with the 'road danger reduction' approach and the MTS aim of road traffic reduction will contribute to a reduction of P2W casualties at these locations.

Over 90% of riders involved in collisions are male, and drivers of P2Ws under 125cc are generally younger (predominantly 20-29) than those driving P2Ws over 125cc (predominantly 40-49). Improving their safety is important, as is educating other road users about how to avoid collisions. This demographic information can be useful for targeted public engagement and educational initiatives, and this has already been a focus for borough officers in recent years. The Council already offers free voucher codes for residents to undertake a one-day motorbike safety course from professional police motorcyclists. This will be publicised to residents to maximise uptake, with a particular focus on young riders who are shown to be most at risk.

TfL has allowed P2Ws to ride in bus lanes on all TLRN road since 2011, however P2Ws are currently not allowed within bus lanes managed by Lewisham. Studies[43] have shown that the introduction of P2Ws in bus lanes on TfL's roads have not resulted in an increase in collisions, and conversely the inconsistency in bus lane policies across the road network can lead to confusion. The Council will therefore investigate the feasibility of rolling this out on all Borough-managed roads, and will cooperate with neighbouring Boroughs and TfL to ensure a consistent approach.

Consideration of the needs of other vulnerable road users, is also essential in order to achieve the MTS 'Vision Zero' target of eliminating deaths and serious injuries from road collisions. Cycling will be a key focus as greater numbers of people cycle in the borough. Future infrastructure projects to prioritise cycling and walking in Lewisham will be observant of the lessons learned and experiences of similar projects (in LBL and beyond) to ensure road danger is minimised as greater exposure and higher modal shares are achieved. Awareness of the 'cause and effect' of interventions is also required such that the needs of individual modes are not pursued to the detriment of achieving a balanced improvement in safety – taking an unbalanced view and shifting the brunt of road danger to other modes or locations will compromise efforts to achieve Vision Zero targets.

People are approximately five times less likely to be fatally injured if hit at 20mph than at 30mph[44], and in response to this TfL have announced that it will introduce

[43] Easy rider: Improving motorcycle safety on London's roads, London Assembly, 2016, page 16

[44] Vision Zero Action Plan, TfL, 2018

new 20mph speed limits to the A21 between Catford and Lewisham, sections of the South Circular Road and the A245. This will complement the existing Borough-wide 20mph speed limits on all Council-controlled roads. Lewisham will work with TfL to implement this and wishes to see a future progression to encompass all TLRN roads in the Borough, prioritising the A20 between New Cross and Lewisham, and the South Circular Road between Catford and Forest Hill. The Council considers that prioritising these links, in conjunction with the proposed 20mph speed limits, will provide a more cohesive network and reduce uncertainty amongst drivers which can exacerbate road danger.

The traditional approach of considering the level of safety on roads has been via casualty analysis. Whilst this approach has its merits in considering behaviours and environments where casualties commonly occur, it does not for instance highlight where a road environment is so hostile to cycling that there are no cyclists and thereby no cycle casualties. To gain a measure of road safety and quality of environment, it is necessary to consider who is and is not using Lewisham's roads.

Road casualty data will therefore be monitored alongside walking and cycling rates to ensure that Lewisham's roads are safe for all people in all their diversity.

The above is also true for perceptions of security, which is inherently tied to demographic and gender. Lewisham recognises that feelings of security amongst residents holds a strong link to social inclusion. Those who feel vulnerable are less likely to go out, or travel by active modes – particularly walking. This eliminates opportunities for socialising and interaction with the local environment and can lead to residents feeling isolated, with older generations particularly at risk.

Lewisham aims to be an inclusive Borough, with the Council recognising the links between safety, security and social inclusion. It will make new developments, public spaces and refurbished train stations feel safe by 'designing out crime' with improved lighting, accessibility and dealing with vandalism[46].

Lewisham will adopt the MTS Healthy Streets approach to make its streets appealing places to spend time and assist people from all walks of life to feel safe and secure within the Borough's transport network.

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[45] Vision Zero Action Plan, TfL, 2018, page 38-39

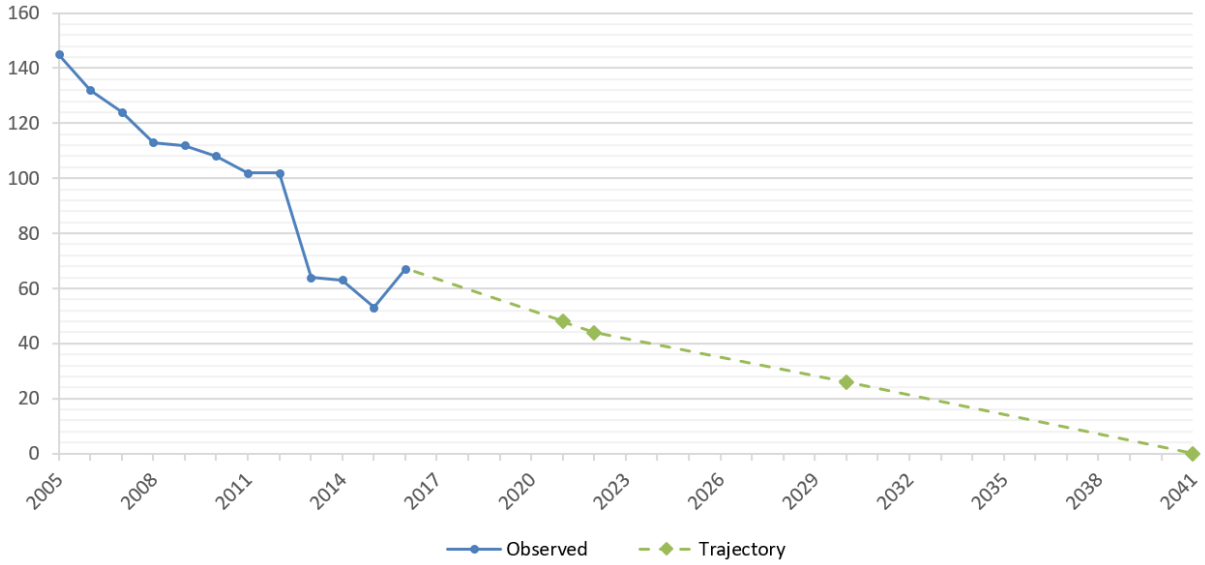
[46] Sustainable Community Strategy 2008 – 2020, Lewisham Borough Council

MTS Borough Objectives

Outcome 2: Vision Zero - Deaths and serious injuries from all road collisions to be eliminated from our streets

By 2041, there will be no deaths or serious injuries from road collisions within Lewisham's road network.

Chart 3: Killed and Seriously Injured Casualties



Source: LIP3 MTS outcomes borough data pack v1_1

The Metropolitan Police Service (MPS) introduced a new collision reporting system in November 2016 - the Case Overview and Preparation Application (COPA). The City of London Police also moved to the Collision Reporting And Sharing (CRASH) system in October 2015. This has had a number of impacts on the data that is available to Transport for London (TfL), and the London Boroughs in the ACCSTATS database for collision investigation.

Under the new systems officers use an 'injury-based assessment' in line with DfT STATS 20 guidance and online self-reporting is available. Both of these changes are expected to provide a better assessment of injury occurrence and severity but have made data collected from November 2016 onwards difficult to compare with earlier data.

TfL commissioned the Transport Research Laboratory (TRL) to undertake a back-casting exercise to enable pre-November 2016 data to be compared with post November 2016 data. These initial back cast estimates include the number of people killed or seriously injured (KSI) for each borough between 2005 and 2017 and this data has been used to update borough targets to align with those contained in the

Mayor's Transport Strategy, namely a 65 percent reduction in KSIs by 2022 against the 2005-09 baseline, a 70 percent reduction in KSIs by 2030 against the 2010-14 baseline and zero KSIs by 2041. The targets contained in this final version of the LIP have been set against Outcome 2 for Vision Zero to reflect the reporting changes. The level of ambition remains unchanged, despite these revised figures

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

Challenges and opportunities

Lewisham experiences annual traffic flows of 766 million vehicle kilometres, travelled by all motor vehicles[47], of which 599 million vehicle kilometres are car traffic. However, given Lewisham's strategic position on the South Circular Road, A20 and A2, a large proportion is attributable to through-trips starting and ending in other boroughs.

This presents a challenge for Lewisham, as these types of journeys are largely outside of the Council's control and cannot be prevented without pushing issues of congestion into neighbouring boroughs. The Council will therefore work alongside other boroughs to take a holistic approach to traffic reduction, whereby the appeal of travel by car is reduced at-source. If all London Boroughs work to and meet their objectives under Outcome 3 of the MTS, the levels of through-traffic within Lewisham will fall as a result.

Collaboration amongst the boroughs and TfL is therefore key, and Lewisham will fulfil its responsibility to alleviating through-traffic in other Boroughs by making alternative modes attractive to those starting or ending their journeys within Lewisham.

The Council has greater control over car journeys that begin and end in the Borough, and by nature these trips are more likely to be shorter distances with viable options for alternative modes. 2011 Census Journey to Work Data[48] reveals that approximately 30% of people who live and work within Lewisham travel to work by car. This is a high proportion that could potentially shift mode. Whilst the land area of the Borough is comparatively large for Inner London, at 35.15km^2, the maximum travel distance within Lewisham is approximately 10km, a distance that could be travelled within an approximate 35 minute cycle for an adult of reasonable fitness, not

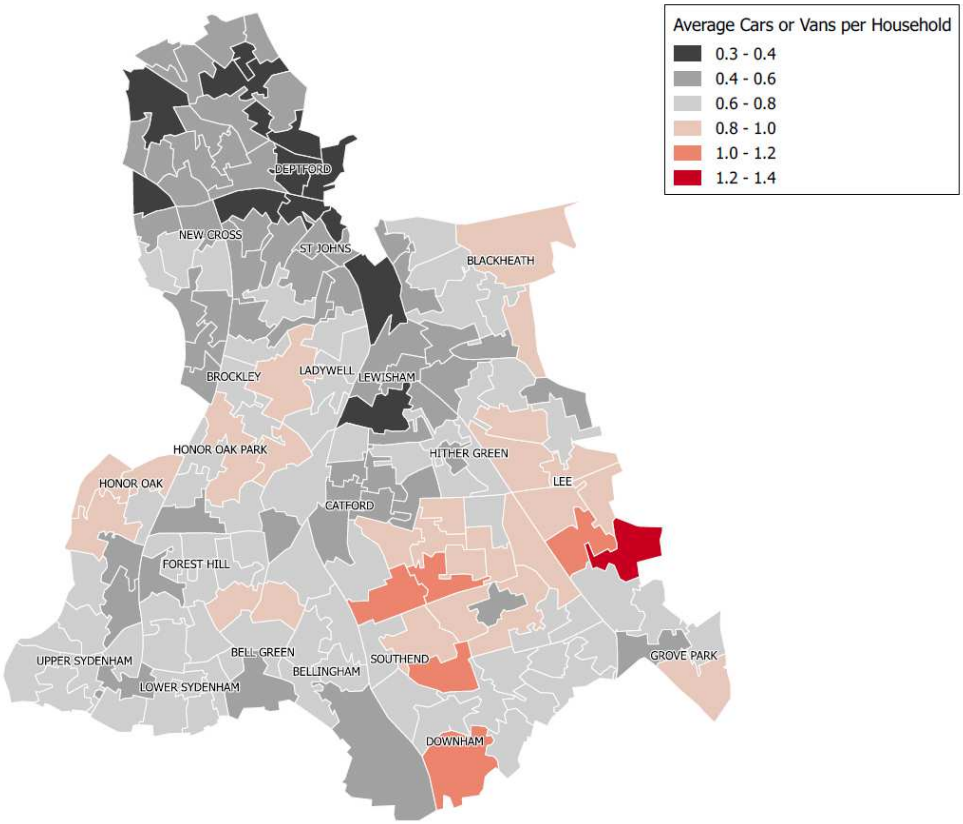
[47] Traffic Flows, Borough, Department for Transport, 2016

[48] Census 2011, WU03EW - Location of usual residence and place of work by method of travel to work

accounting for traffic conditions. The Council will therefore focus efforts on resident commuters, to reduce traffic particularly at peak times as a result. As previously discussed, and illustrated in Figure 9, resident commuting patterns show a high car use in the south-east of the Borough. It is therefore the Council's aspiration to improve active travel links to this area. This will help to facilitate links to public transport hubs and encourage multi-modal journeys. The Council will also continue to support the proposed BLE and advocate for its extension through the south of the Borough to Hayes as a single phase. This will bring the borough a significant step towards addressing the high car use in the south of the borough by better serving residents

Households in Lewisham have an average of 0.657 cars or vans[49], with the highest areas of ownership located in the south-east of the borough as shown in Figure 15.

Figure 15: Average Cars or Vans per Household



[49] Census 2011, KS404EW – Car or Van Availability

The Council aims to not only reduce car use in the Borough, but also car ownership. This is reflected within the MTS outcomes. Current policies such as car-free and car-light developments in areas of high PTALs are helping to achieve this, and the Council aims to increase Controlled Parking Zone (CPZ) coverage within the Borough, where supported by residents, to further discourage ownership and use.

At a more local level, Lewisham is proposing a traffic reduction strategy that aims to target rat-running and encouraging active travel as the most direct routes. The Council will implement this, in collaboration with communities, through localised road closures to through-traffic and one-way enforcements, complemented by a range of other measures, through a Healthy Neighbourhoods programme.

An emerging challenge in achieving a reduction in ownership is the drive for Electric Vehicle (EV) infrastructure. Whilst EVs form a significant improvement to traditional motorised traffic, widespread ownership and use would still result in congestion and inactive travel and be counter to many of the MTS outcomes. Lewisham recognises the need for EV infrastructure and aspires to balance encouraging a switch from traditional to EV ownership, whilst also encouraging a reduction in overall car ownership.

Lewisham has an existing network of Car Club bays operated by Zipcar. Bays are generally well distributed throughout the Borough, however they become sparse to the south and south-east around Bellingham and Lee. The Council will therefore work with Zipcar and other car club companies, to increase provision in these areas. This will open opportunities to lowering car ownership in the areas with lowest PTALs and highest car reliance.

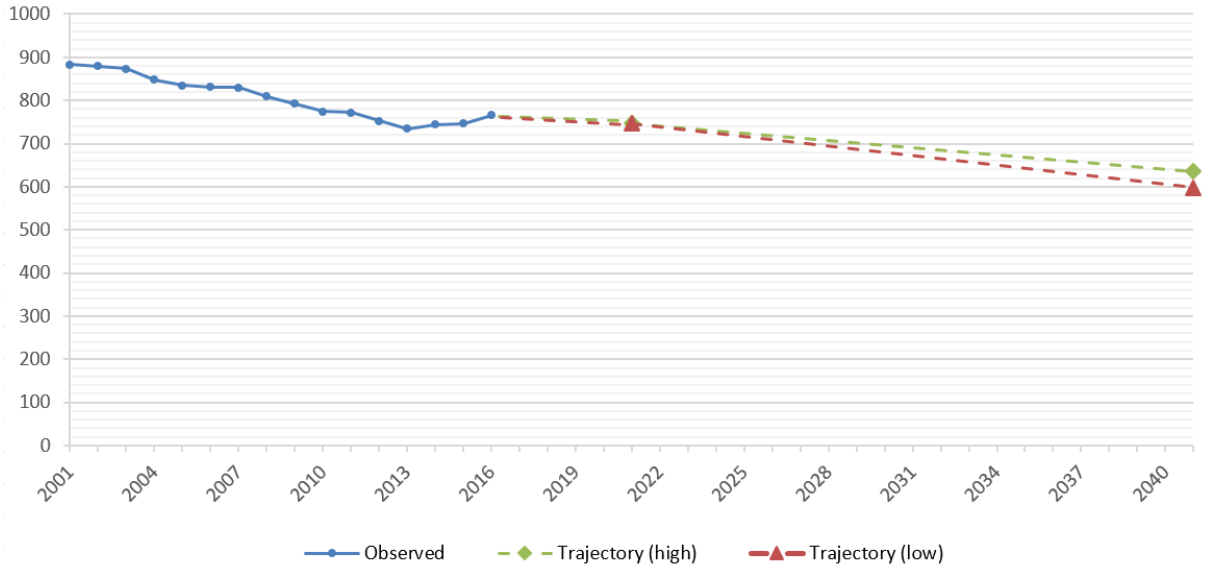
Lewisham has identified an opportunity to improve efficiency in delivery vehicle transport on the network. These types of movements are becoming increasingly common with the rise in popularity of supermarket, online, and hot food deliveries. Their prevalence often means that ‘car-free’ developments still result in notable vehicle trip generation. It is common for missed deliveries to occur, resulting in multiple trips before the final delivery is achieved. This is not an efficient system and it is expected that changing consumer habits will continue this upward trend. Lewisham will therefore explore options for centralised delivery hubs within optimal locations. This would allow multiple deliveries to be made to one location, reducing vehicle circulation and remove the need for repeated trips for failed deliveries and redeliveries.

MTS Borough Objectives

Outcome 3a: Reduce the volume of traffic in London

By 2041, Lewisham will have measured a 15 – 20% reduction in annual vehicle kilometres, as measured by the Department for Transport (DfT) road traffic statistics.

Chart 4: Annual Million Vehicle Kilometres



Source: LIP3 MTS outcomes borough data pack v1_1

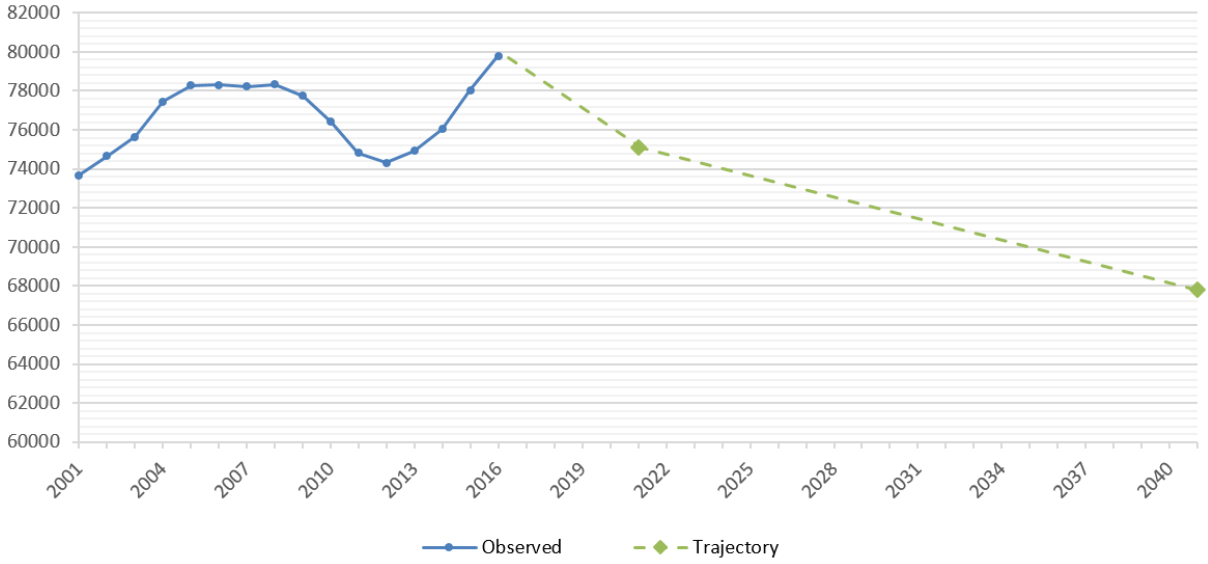
Outcome 3c: Reduce car ownership in London

Lewisham has experienced an increase in car ownership of 7% from 2012 to 2016. This followed a period from 2008 where it declined by 5% (4,000 vehicles) over the four years. This mirrored a general trend in London, whereby vehicle ownership declined by 4% from 2008 to 2012 followed by an increase of 5% up to 2016[50].

In response to this increase, the Lewisham MTS Borough objective stipulates that households will own 4,700 fewer cars by 2021, and 12,000 fewer 2041. This will be measured by the number of licensed vehicles in the Borough.

[50] Number of Licensed Vehicles by Borough, DfT, 2017

Chart 5: Number of Cars Owned



Source: LIP3 MTS outcomes borough data pack v1_1

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

Challenges and opportunities

Lewisham has six Air Quality Management Areas (AQMAs); five covering the entire area to the north of South Circular Road, and the sixth being a linear AQMA covering the South Circular Road, A212 and A2218. Nitrogen Dioxide (NO_2) concentrations are above the EU annual average limit of 40 µg/m^3 surrounding several of the main roads within the Borough, as illustrated in Figure 16, and this is also reflected in patterns of Nitrogen Oxide (NO_x) concentrations (see Figure 17).

Figure 16: Annual Mean NO_2 Concentrations

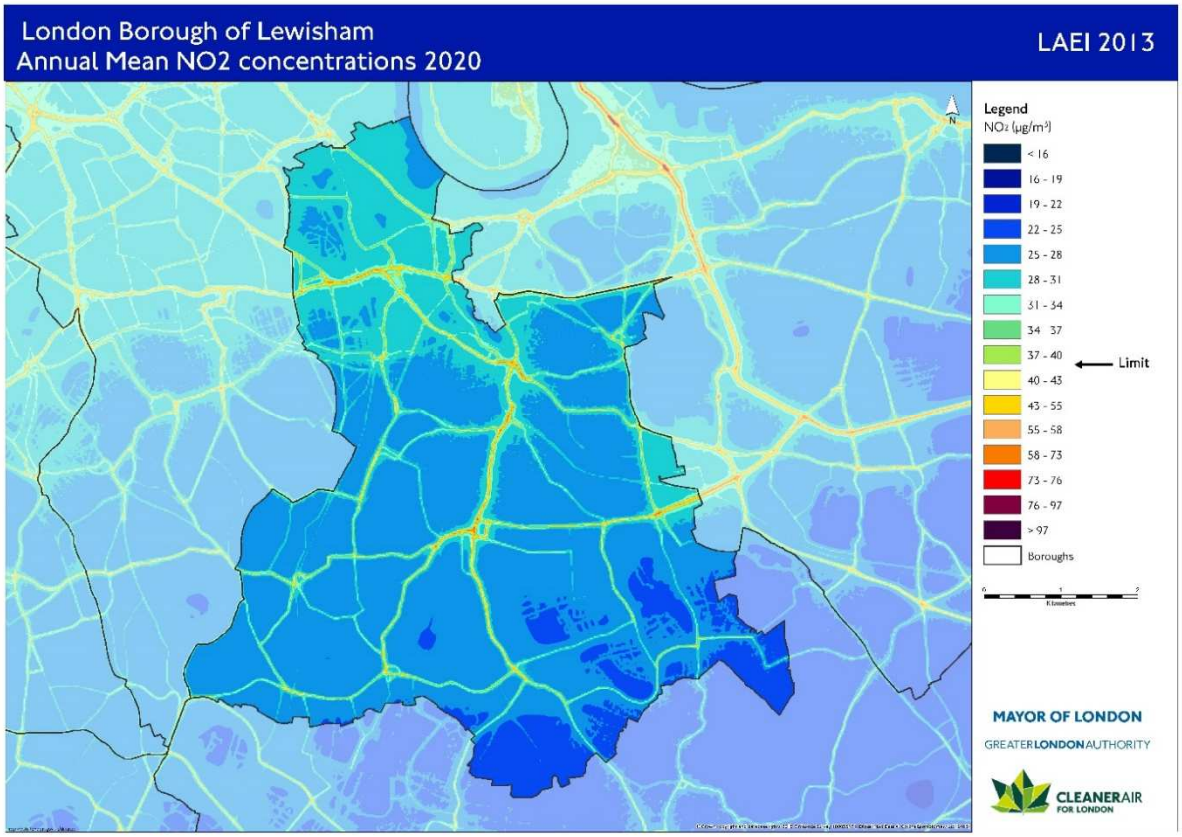
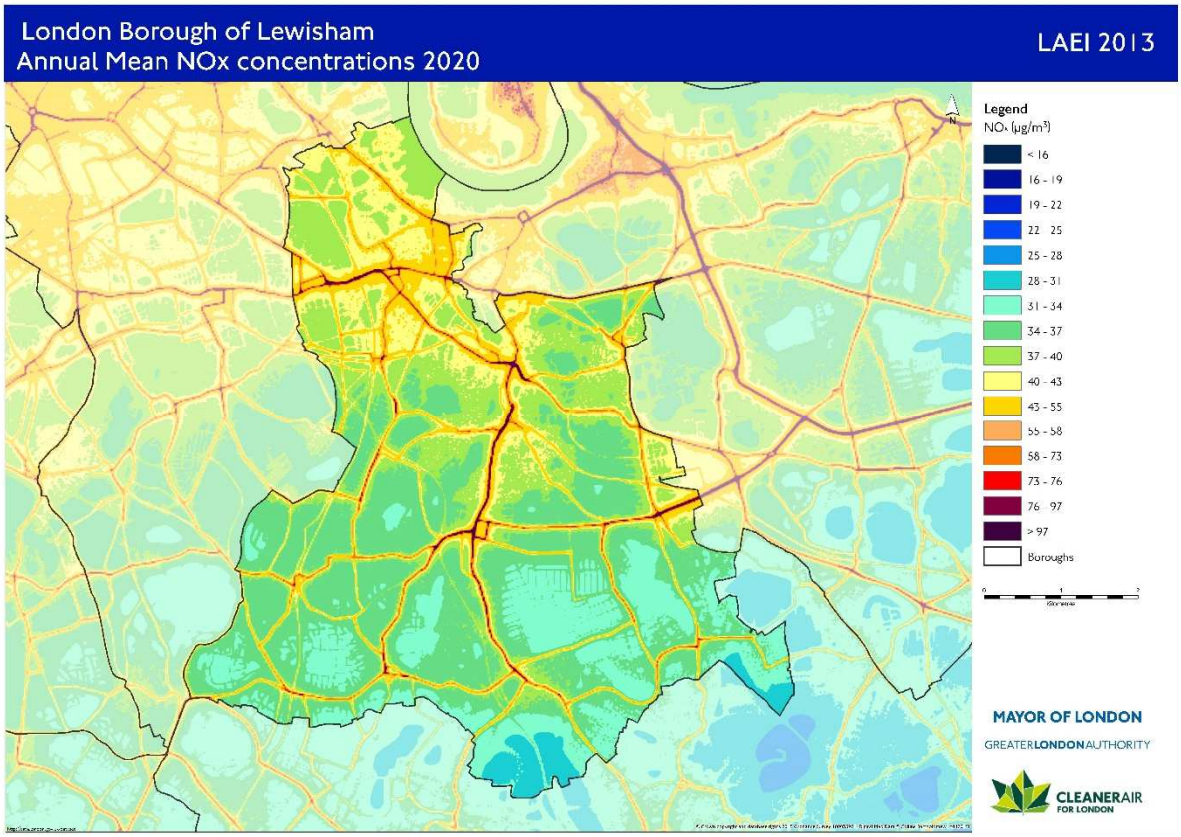
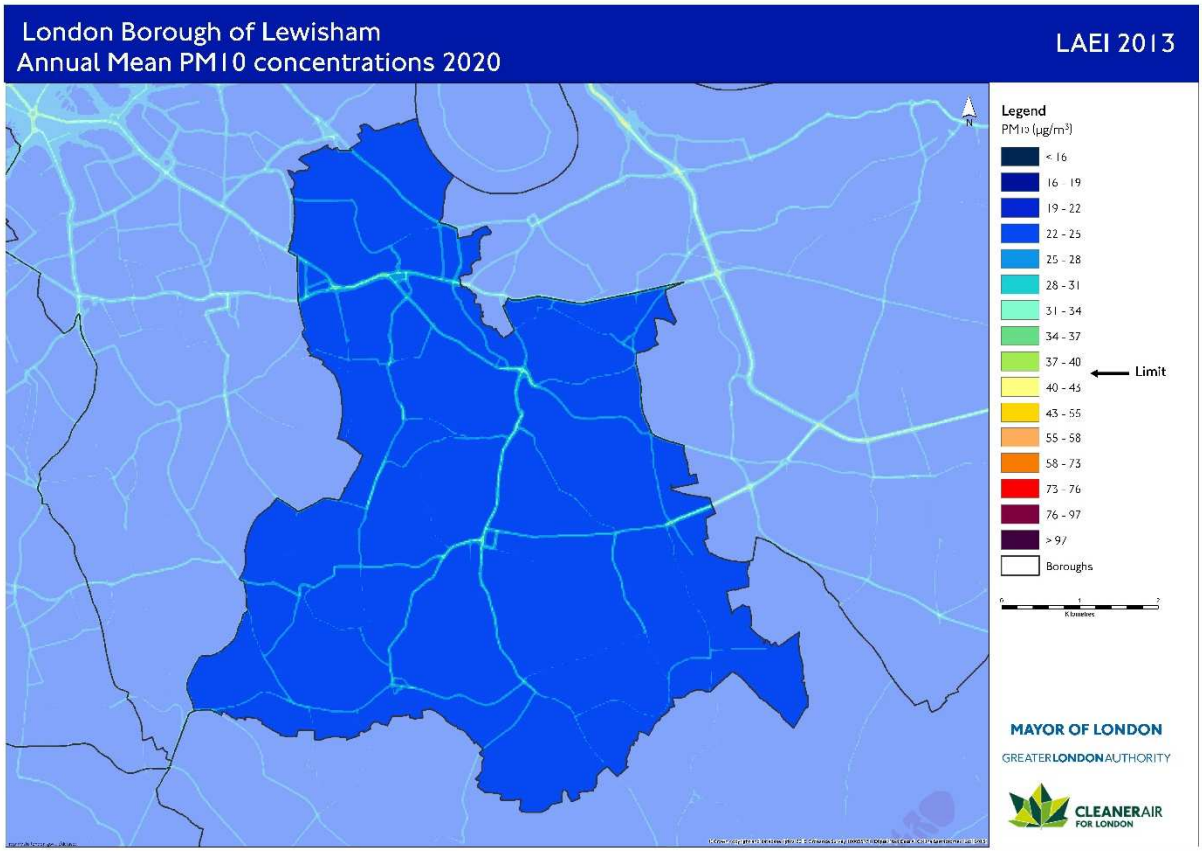


Figure 17: Annual Mean NO_x Concentrations



Although Particulate Matter (PM_{10}) is meeting the EU limits of 40 µg/m^3 annual average, concentrations are above the World Health Organisation guideline of 20 µg/m^3 annual average across significant areas of the Borough, as shown in Figure 18.

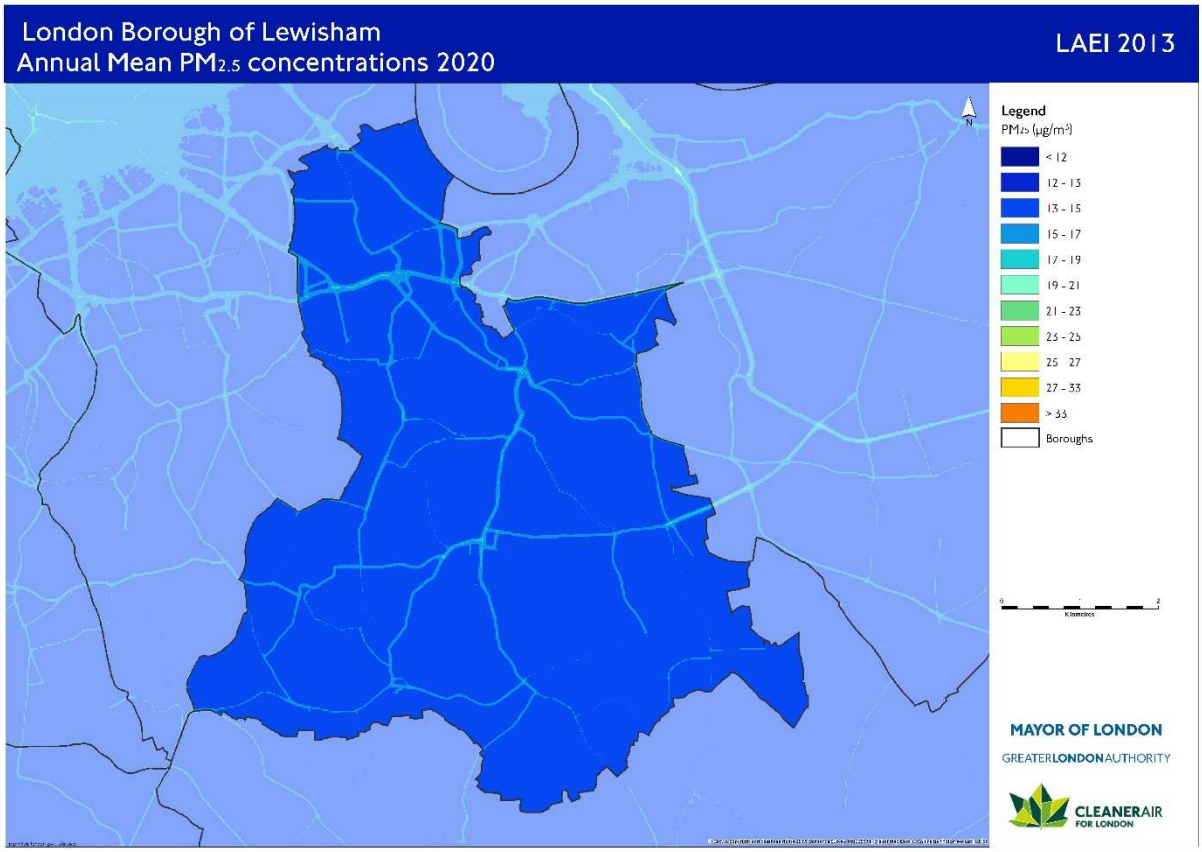
Figure 18: Annual Mean PM_{10} Concentrations



$PM_{2.5}$ is a fraction of PM_{10}, formed by particulate matter with a diameter of 2.5 micrometres or less. As shown in Figure 19, the entirety of the Borough falls within the EU limit of 25 µg/m^3 annual average. Despite falling below EU limits, the Council has a formal responsibility[51] to reduce concentrations of $PM_{2.5}$ and the objectives of this LIP will aim to for a reduiction

[51] Air Quality Action Plan 2016 – 2021, London Borough of Lewisham

Figure 19: Annual Mean $PM_{2.5}$ Concentrations

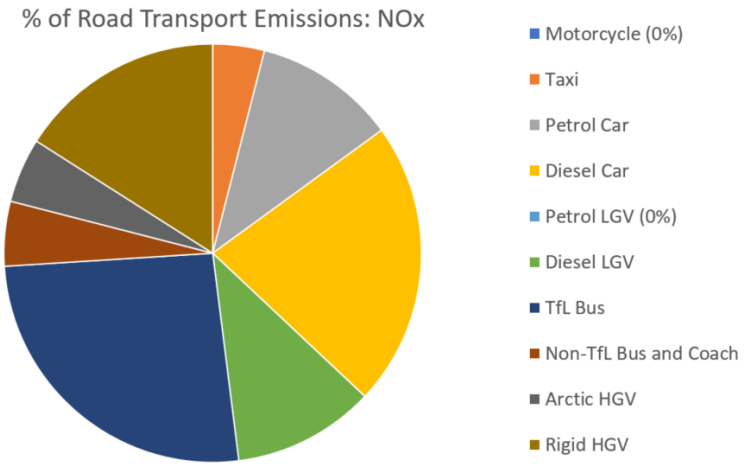


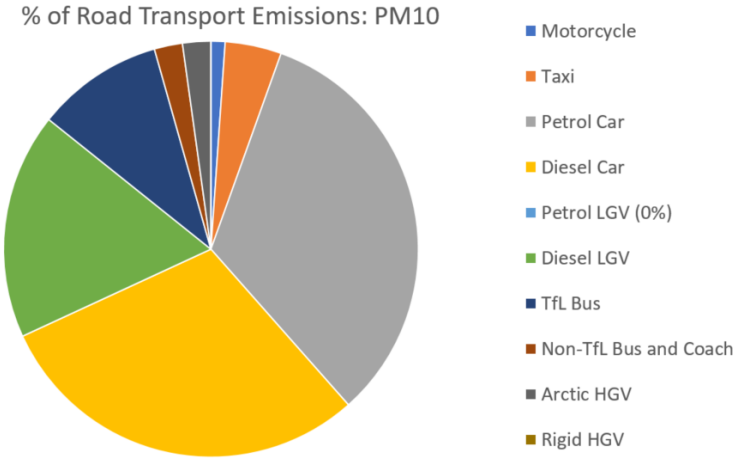
Nine 'Air Quality Focus Areas' have been identified, comprising areas that have high levels of pollution and human exposure[52]. These focus areas are considered through the Lewisham Air Quality Action Plan when reviewing specific improvement actions;

- Deptford Town Centre
- New Cross Gate and New Cross
- Brockley Cross
- Brockley Road (B218) between Adelaide Avenue and Wickham Road
- Honor Oak Park junction Brockley Road
- Forest Hill and Perry Vale Junction
- Loampit Vale and Lewisham High Street
- Catford Road and Catford Gyratory
- St Mildreds Road (A2015) from Hither Green Lane to Burnt Ash Hill (A2212)

[52] Air Quality Action Plan 2016 – 2021, London Borough of Lewisham, page 14

Road Transport is the biggest contributor to NO_x and PM_{10} emissions, contributing 64% and 55% of total emissions respectively[53]. These proportions are further broken down by vehicle type as follows:





Private cars therefore contribute towards 33% of NO_x and 57% of PM_{10} emissions from road transport. To help tackle this, Lewisham is prioritising the reduction of emissions from road traffic through measures to support active travel, improved public transport connections, and expanding provision for EV charging points to encourage a shift from traditional petrol and diesel vehicles. The Council's draft Low Emission Vehicle Charging Strategy seeks to ensure that everyone in Lewisham is no further than 500m from a chargepoint by 2020[54].

[53] Air Quality Action Plan 2016 – 2021, London Borough of Lewisham, page 15-16

[54] Draft Low Emission Vehicle Charging Strategy 2018-2022, London Borough of Lewisham, 2018

Through this LIP there is opportunity to further build upon this by reducing numbers of internal vehicle trips and car ownership levels. The Council notes that through-traffic is a contributor to reduced air quality on the Borough's main strategic routes. To realise the long-term MTS objective of being on track to reach zero emissions by 2050, the Council recognises that inter-Borough collaboration is essential.

Lewisham has developed a bespoke app, Lewisham Air, which allows users to get news and alerts about air quality. Users can then plan low-pollution walking and cycling routes. This tool offers a platform for communicating with those who live, work and study in the Borough. It provides the opportunity to influence behavioural change amongst an audience who have already shown an awareness and interest in the importance of air quality.

In January 2017, the Mayor announced a new Low Emission Bus Zone (LEBZ) in Lewisham stretching from Catford to Lewisham and New Cross via Lewisham High Street and New Cross Road. This zone benefits from the newest and cleanest buses deployed along the routes, and will already have assisted Lewisham towards achieving the outcomes of MTS since implementation. The Council supports the LEBZ and will work with the GLA and TfL to explore where expansions can be made to further benefit the Borough.

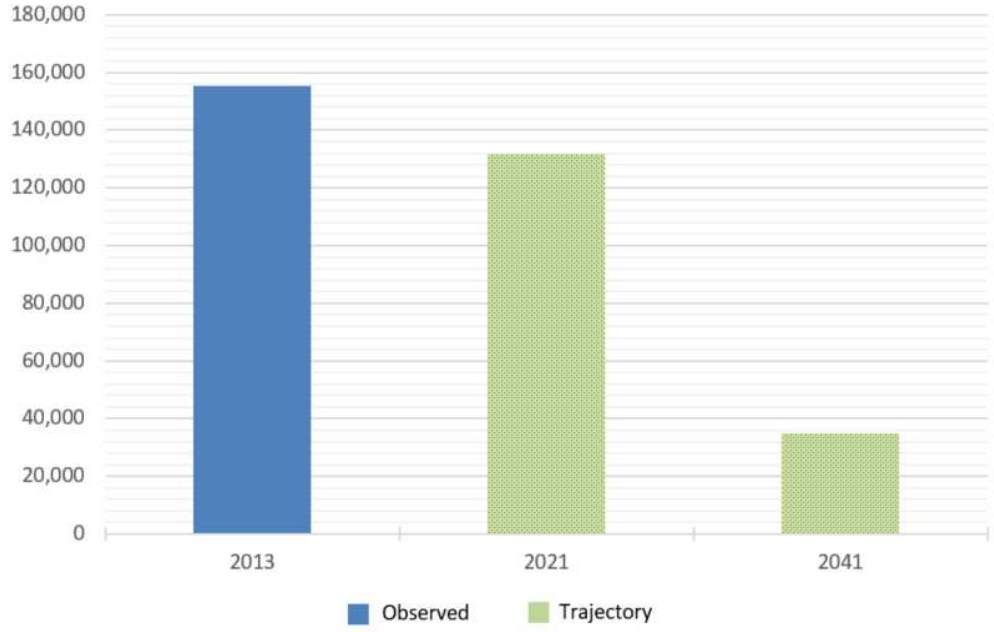
From 25th October 2021, London's Ultra-Low Emission Zone (ULEZ) will be expanded to include all areas of Lewisham to the north of the South Circular Road, taking in five of Lewisham's six AQMAs. The Council welcomes this expansion, although it would have preferred to see the whole of the borough included, and will assist the Borough in achieving outcome 4 of the MTS.

MTS Borough Objectives

Outcome 4a: Reduced CO_2 emissions

Lewisham will have reduced its CO_2 emissions produced by road transport by 78% from 155,200 to 34,800 tonnes by 2041.

Chart 6: CO_2 emissions (in tonnes) from road transport

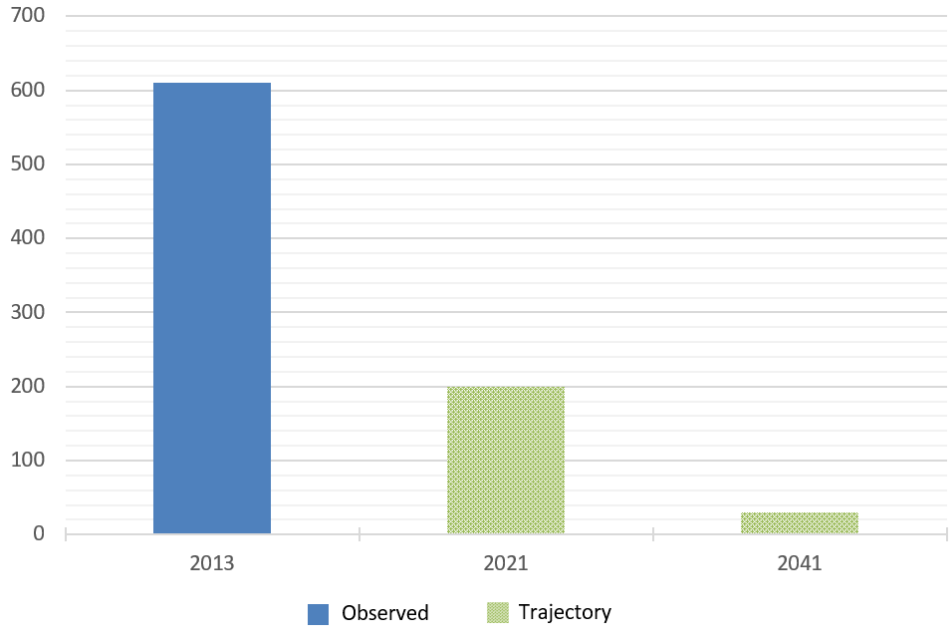


Source: LIP3 MTS outcomes borough data pack v1_1

Outcome 4b: Reduced NO_x emissions

Lewisham will have reduced its NO_x emissions produced by road transport by 95% from 610 to 30 tonnes by 2041.

Chart 7: NO_x emissions (in tonnes) from road transport

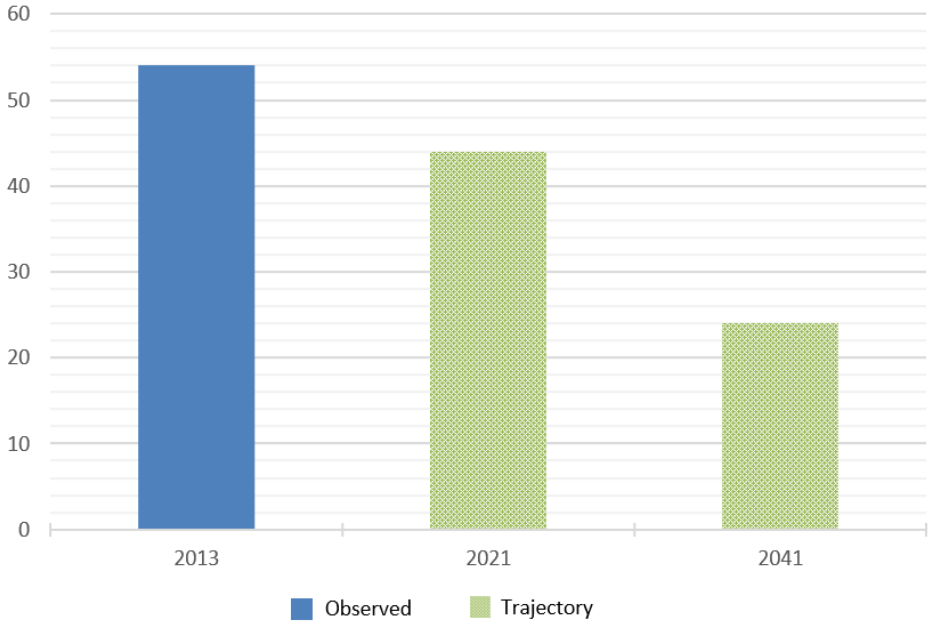


Source: LIP3 MTS outcomes borough data pack v1_1

Outcome 4c: Reduced particulate emissions (PM_{10})

Lewisham will have reduced its PM_{10} emissions produced by road transport by 56% from 54 to 24 tonnes by 2041.

Chart 8: PM_{10} emissions (in tonnes) from road transport

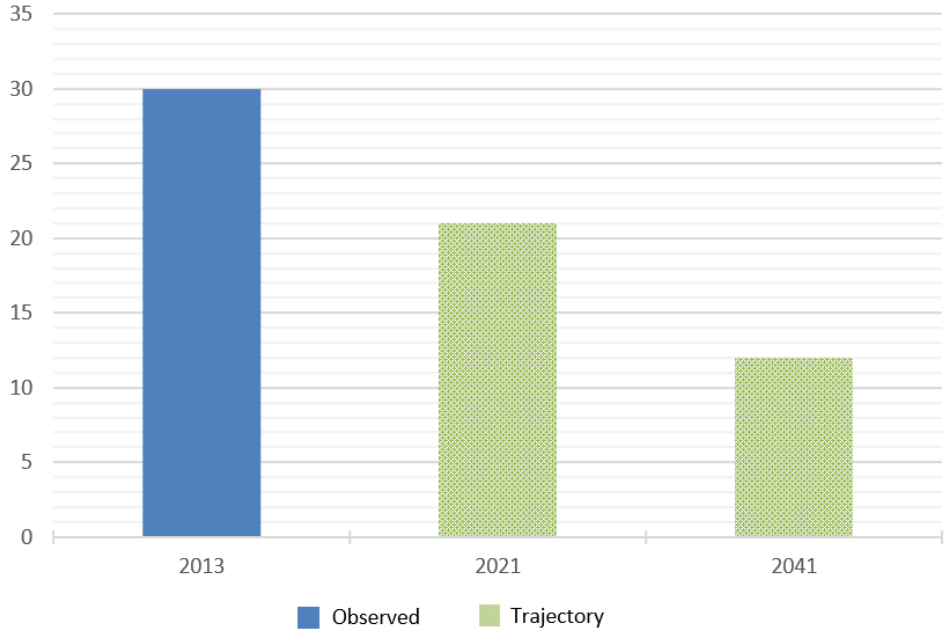


Source: LIP3 MTS outcomes borough data pack v1_1

Outcome 4d: Reduced particulate emissions ($PM_{2.5}$)

Lewisham will have reduced its $PM_{2.5}$ emissions produced by road transport by 60% from 30 to 12 tonnes by 2041.

Chart 9: $PM_{2.5}$ emissions (in tonnes) from road transport



Source: LIP3 MTS outcomes borough data pack v1_1

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

Challenges and opportunities

Without an existing tube network in the Borough, the rail network is a vital link for connecting Lewisham to Central London and surrounding areas. This is reflected in the fact that more Lewisham residents rely on train travel to get to work than any other Inner London Borough[55].

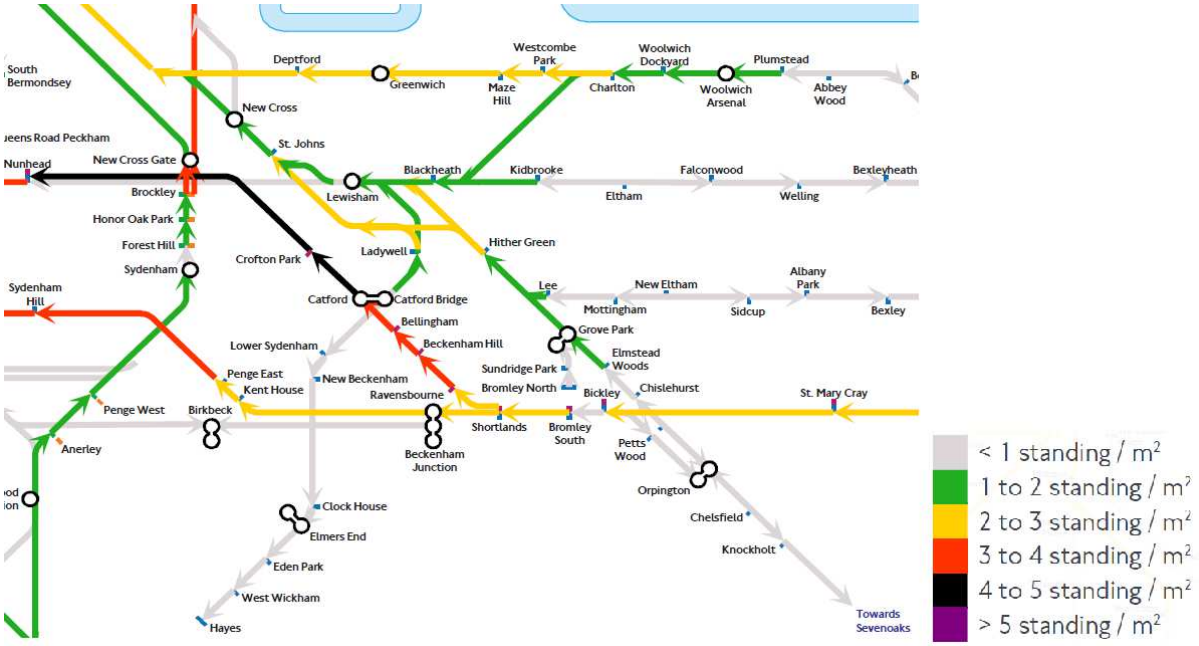
However, journey to work patterns also highlight that south-east London is comparatively disconnected. Lewisham has the lowest proportion of residents commuting by underground, metro, light rail or tram in Inner London, and the second highest proportion of car drivers after Greenwich.

[55] Census 2011, QS701EW - Method of travel to work

With Lewisham's population growing, and expected to grow by an additional 16% between 2018 and 2041[56], its transport network will be placed under even greater demand. Without careful management and infrastructure in place, Lewisham risks that additional demand being met by private car use.

Demand for the transport network is already higher than previously expected, with actual population growth in London outstripping that forecast in the previous MTS (2010) by approximately double[57]. Public transport infrastructure is already under stress, with crowding and congestion issues. Lewisham's rail network is served by routes originating to the south and south-east of the Borough and serving Central London, and are regularly crowded by the time they enter Lewisham with up to 4-5 people standing / m^2, as illustrated in Figure 20.

Figure 20*:* National Rail Crowding 2011[58]



The Lewisham 'A Vision for Rail' document (2017) echoes this MTS outcome, and the need to provide for the growing population. It outlines six vision goals, against which potential rail improvement schemes will be appraised:

[56] Central Trend-Based Population Projections, Greater London Authority, 2017

[57] East and South-East London Sub-Regional Transport Plan, 2016 Update, Transport for London

[58] East and South-East London Sub-Regional Transport Plan, 2016 Update, TfL, page 87

- To provide better links and sufficient rail capacity between all areas of Lewisham Borough and central London employment areas.
- To provide sufficient rail capacity between all areas of Lewisham Borough and East London employment areas.
- To increase rail access to and from Lewisham's growth areas.
- To improve rail connectivity across the Borough, especially east-west links and services to the south of the Borough.
- To enhance the quality of stations and provide step-free access at all stations in the Borough.
- To improve the connectivity between stations and their local areas.

The Council considers a number of schemes within its Vision for Rail as fundamental to achieving the above aims, and the outcomes of the MTS; the Bakerloo Line Extension (BLE), the Lewisham Strategic Interchange (LSI), Brockley Interchange and metroisation.

The BLE proposes to extend the line to Lewisham providing Lewisham's first tube link. It will connect Lewisham and New Cross Gate Stations to Central London and the West End, and create two new stations on Old Kent Road in Southwark. This extension has the potential to add capacity for an additional 65,000 journeys in the morning peak[59]. New bus, cycling and walking routes to the proposed tube station would further add capacity to the network to support growth.

As noted previously, Lewisham wishes to see the potential future extension to Hayes brought forwards as a single phase for the BLE. The Council believes that this will unlock major improvements in public transport provision for the currently under-served south of the Borough. This could increase the frequency of service to 27-34 trains per hour along the line.

The LSI scheme would alleviate crowding at Lewisham Station and help it to fulfil its role as one of London's four strategic interchanges for passengers changing between radial and orbital rail links, tube and DLR. With the proposals for the BLE, it is forecast that an additional 18,000 passengers may wish to interchange at Lewisham station in the AM peak[60]. The LSI would therefore enable the success of the BLE and elevate Lewisham Station to a world class multi-modal transport hub.

[59] A Vision for Rail, London Borough of Lewisham, 2017, page 23

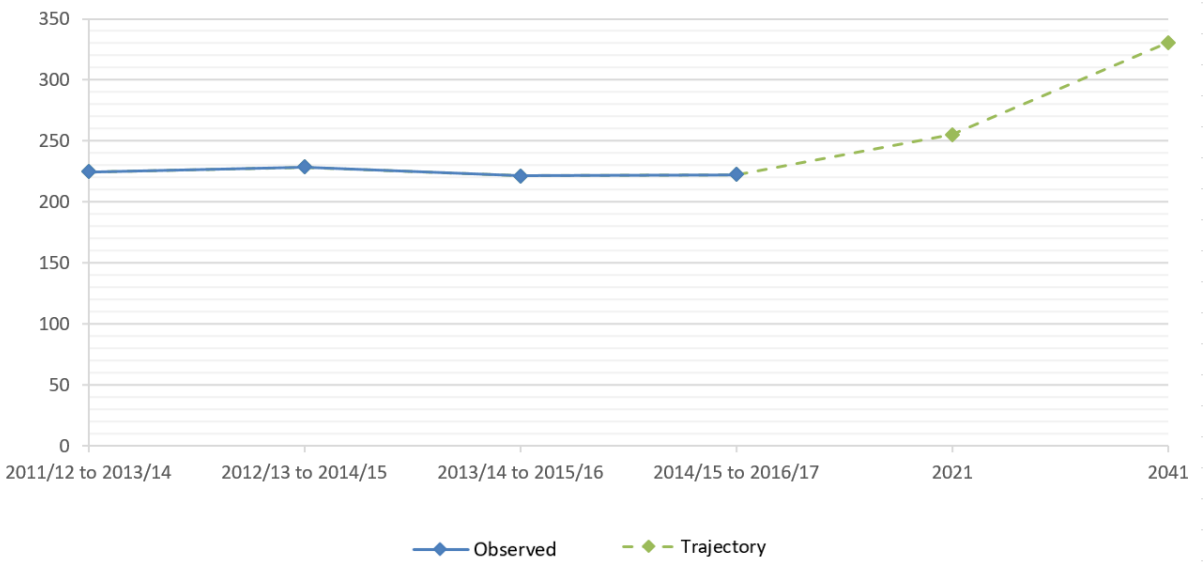
[60] A Vision for Rail, London Borough of Lewisham, 2017, page 27

MTS Borough Objectives

Outcome 5: Increase Public Transport Use

Lewisham will increase numbers of daily public transport trips by 49%, from 222,000 to 331,000 by 2041. This will be reported as a three-year moving average of trips per day by Borough of residence.

Chart 10: Public Transport (Rail, Underground/DLR, Bus/Tram) Trips per day (000s)



Source: LIP3 MTS outcomes borough data pack v1_1

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

Challenges and opportunities

Improving accessibility to public transport can contribute greatly to social inclusion. Those who don't own or cannot afford a car are reliant on alternative modes. When the alternative of public transport is impractical due to unreliability, cost or lack of services, people are left isolated and severely restricted in employment and education opportunities.

Those who struggle to afford fares, or who struggle to access public transport because of age or disability are most at risk of experiencing social exclusion.

Sustrans defines this as Transport Poverty[61], and highlights the increasing lack of affordable housing in London and places new importance on transport in tackling social exclusion;

- TfL should commit to expanding the bus network in London (typically the preferred mode of transport for low-income groups) as a means of effectively improving transport provision in areas of highest need.
- Ring-fenced funding for walking and cycling through the LIPs process should be provided to better meet people's local travel needs.
- TfL should revise its ticketing policy (especially with regard to rail and underground zoning) to address social exclusion concerns.

This trend is evident in the far north and south-east of the Borough, where the public transport infrastructure is lacking corresponding with areas of low employment rates and IMD scores.

Proposals for 'the Lewisham Spine', a Healthy Streets Corridor forming a central spine through Lewisham along the A21 will assist in bridging the gap in public transport provision by providing an attractive alternative for active travel. The proposals include cycle superhighway standard facilities, low emission bus zone, healthy streets improvements and liveable neighbourhood improvements in the neighbouring streets[62].

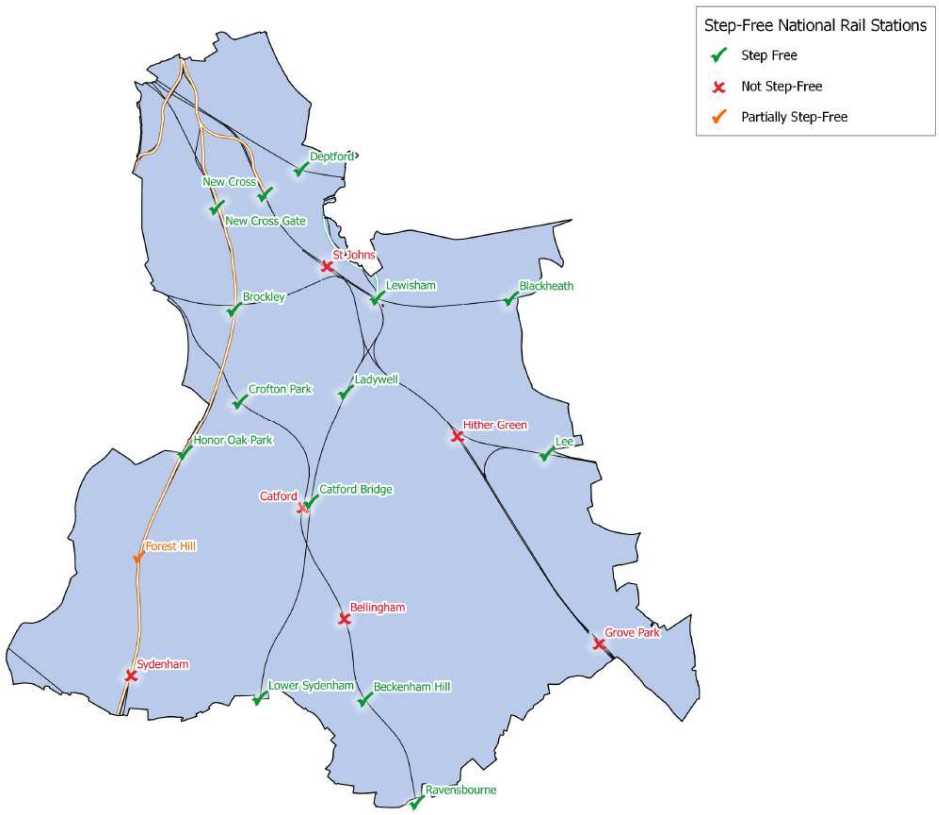
Lewisham aspires to provide a network that is accessible for all ages and levels of mobility. Currently Lewisham has succeeded in bringing 90% of its bus stops to accessible standards, and it aims to increase this provision, bringing all bus stops where feasibility (eg. physical layout) permits to TfL accessible standards, estimated to be to 98%.

Only 14 of the 21 National Rail stations in Lewisham are step-free as illustrated in Figure 21, and the Council will work with National Rail to bring all stations to an acceptable standard of accessibility. It also recognises the need for a comprehensive accessible network in the Borough, as without this, standalone step-free stations do not bring much benefit.

[61] Locked Out: Transport Poverty in England, 2012, Sustrans

[62] Lewisham Cycle Strategy, London Borough of Lewisham, 2017

Figure 21*:* Step-Free Access at National Rail Stations

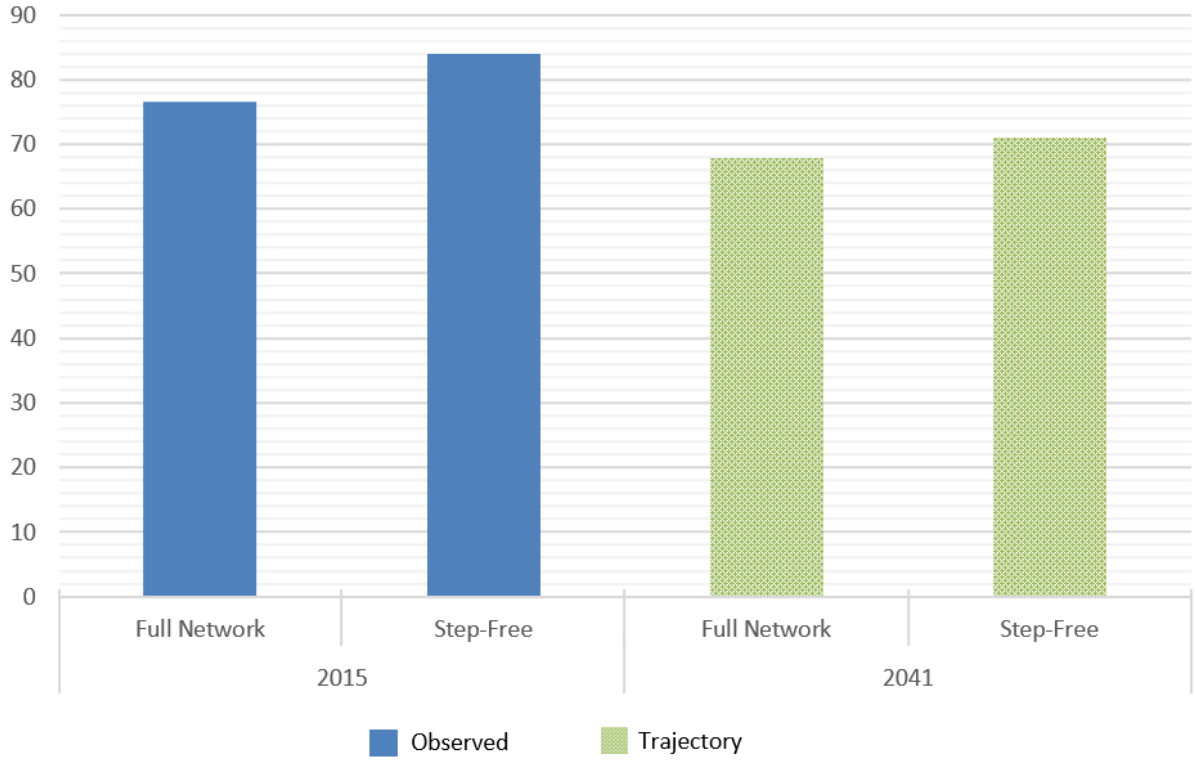


MTS Borough Objectives

Outcome 6: Everyone will be able to travel spontaneously and independently

By 2041, Lewisham will have reduced the difference between the full and step-free networks from 7 minutes to 3 minutes in average journey times.

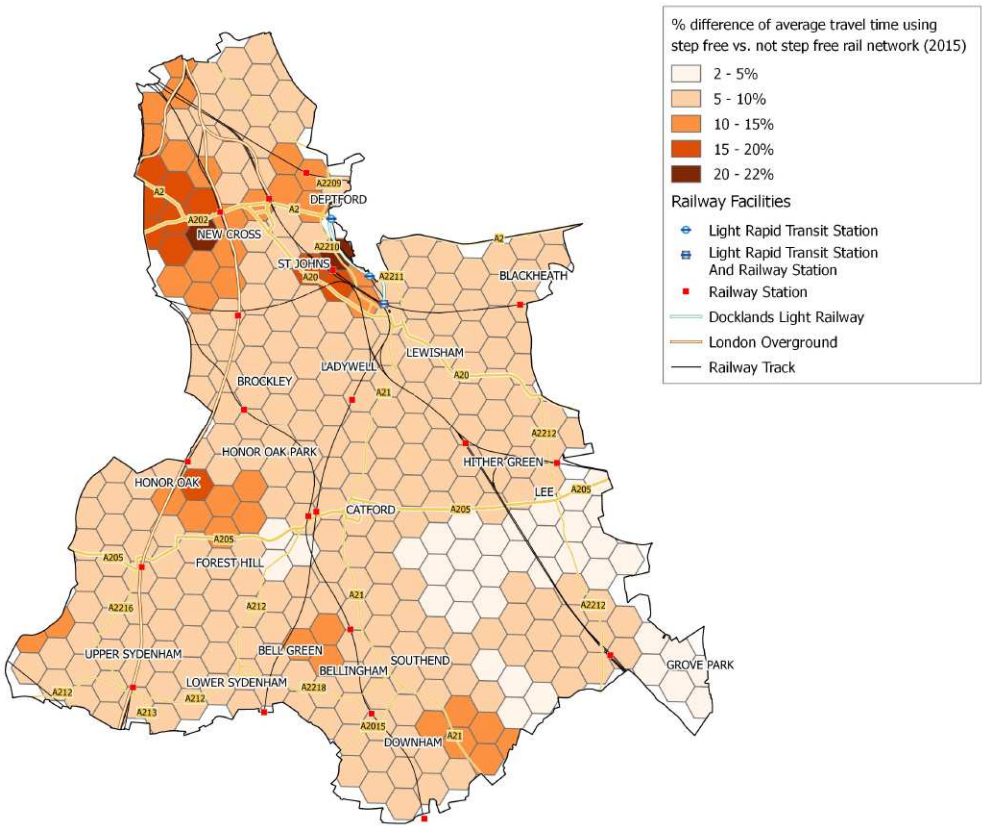
Chart 11: Average Journey Time using Full and Step-Free network (minutes)



Source: LIP3 MTS outcomes borough data pack v1_1

The geographical distribution of areas with the highest difference in journey time using the step-free vs. full network is plotted in Figure 22. The percentage difference is shown to be highest around New Cross and St Johns stations. As shown in Figure 21 St Johns currently does not have step-free access and this is likely a contributory factor to the high difference in journey time. However, the nature of the data is such that areas with lower percentage differences to not equate better provision; the areas with the lowest access to rail stations in the south-east demonstrate a lower percentage difference as the overall journey time for all users in these areas are higher.

Figure 22*:* % Difference of Average Travel Time using Full vs. Step-Free network



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

Challenges and opportunities

Choices in travel modes are subject to many variables, dependent on factors from an individual's demographic and attitude towards public transport, to their aim of travel and the time of day[63]. However, the pleasantness, journey time and reliability are consistent influential factors in travellers' mode choices.

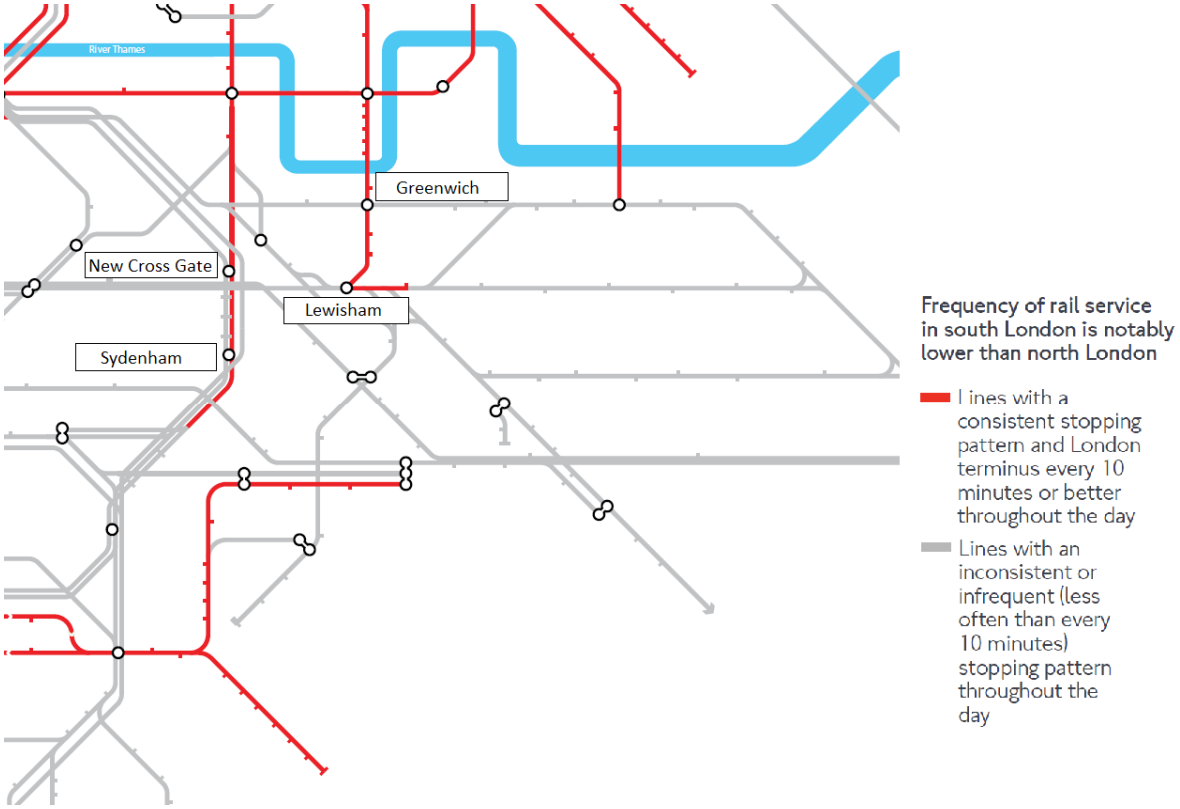
As discussed in the previous section, the rail network experiences passenger crowding within Lewisham (see Figure 20). This of course affects journey comfort; however, it also has the potential to impact on journey times and reliability in severe cases where crowing prevents boarding at stations.

[63] Exploring factors related to users' experience of public transport route choice: influence of context and users' profiles, E. Grison, V. Gyselinck and J-M Burkhardt, 2015

As shown previously in Figure 20, passenger crowding doubles at Brockley Station, jumping from 1 - 2, to 3 - 4 standing per m^3. Passenger boarding at this station is therefore high and associated issues of crowding at station entrances can lead to passenger delay, affecting the reliability and pleasantness of journeys. This is compounded by the access arrangements for passengers approaching from the west, who are required to cross a footbridge over tracks to enter via the main station entrance before crossing another should they wish to access the western platform. A direct access to the western platform was previously in place, and the Council has safeguarded access routes to enable direct access to the western platform to be reopened. It is the aspiration of the Council that this entrance is reopened to allow direct access to the west of the station, relieving overcrowding at the main station entrance and minimising unnecessary levels of detour for passengers accessing the western platform.

On lines with high frequency services, passenger delays due to crowding can be minimised. However, as shown in Figure 23, Lewisham has few stations with a consistent frequency of every 10 minutes or better – limited to Sydenham, New Cross Gate, and Lewisham stations.

Figure 23: Station Frequency 2015[64]



Frequency is key in the overall perception of a quality of service[65], which is an influential driver in passenger mode choice. Higher frequencies in Lewisham will allow for more passengers, and greater reliability. The Council therefore recognises that improvements to service frequency will be key in achieving the aims of MTS Outcome 7, and seeks to at least maintain, or increase, service capacity and frequencies across all routes in the Borough.

Bus travel provides the opportunity to complement Lewisham's rail network by providing an alternative, and serving passenger requirements where rail falls short. The relative flexibility of bus infrastructure provides greater scope for improvement and the opportunity for new bus routes where the need is identified.

The indicator for MTS Outcome 7 relates to an improvement in bus speeds. Lewisham recognises the interconnected nature of bus speeds with journey time and reliability. However, the Council has aims for an overall speed reduction in the

[64] East and South-East London Sub-Regional Transport Plan, 2016 Update, TfL, page 88

[65] East and South-East London Sub-Regional Transport Plan, 2016 Update, TfL

Borough. Lewisham will therefore aim to achieve this indicator by targeting bus journey time reliability, improvements to bus priority and dwell times. These measures are likely to have a positive impact on average bus speeds by-proxy.

Lewisham bus performance data indicates that for high frequency (non-timetabled) routes, passengers are waiting approximately 20% longer than intended, equating to one minute due to irregular bus frequencies or services that failed to run[66]. For low frequency (timetabled) routes, 79.4% were recorded as departing on time. Analysis of TfL Bus Priority Network Mapping shows a correlation between average bus speeds and passenger numbers, as shown in Figure 24 and Figure 25 overleaf.

The slowest average speeds are generally near local centres such as Lewisham, Catford and Deptford. This is where the highest levels of activity and human movements take place, as reflected in the average numbers of bus boarders.

Whilst general congestion will play a part in slower bus speeds, it is likely that bus-on-bus congestion and long dwell times due to high passenger activity are major contributors. There is some existing bus priority in place, particularly at Lewisham and Catford, however the Council will explore where this can be improved and built upon to alleviate general congestion. Opportunities for the optimisation of bus stop locations will be explored to limit delay due to bus weaving movements.

[66] Route Performance Results for London Borough of Lewisham, 4th Quarter 2017/2018, TfL

Figure 24: Annual Average Bus Speeds

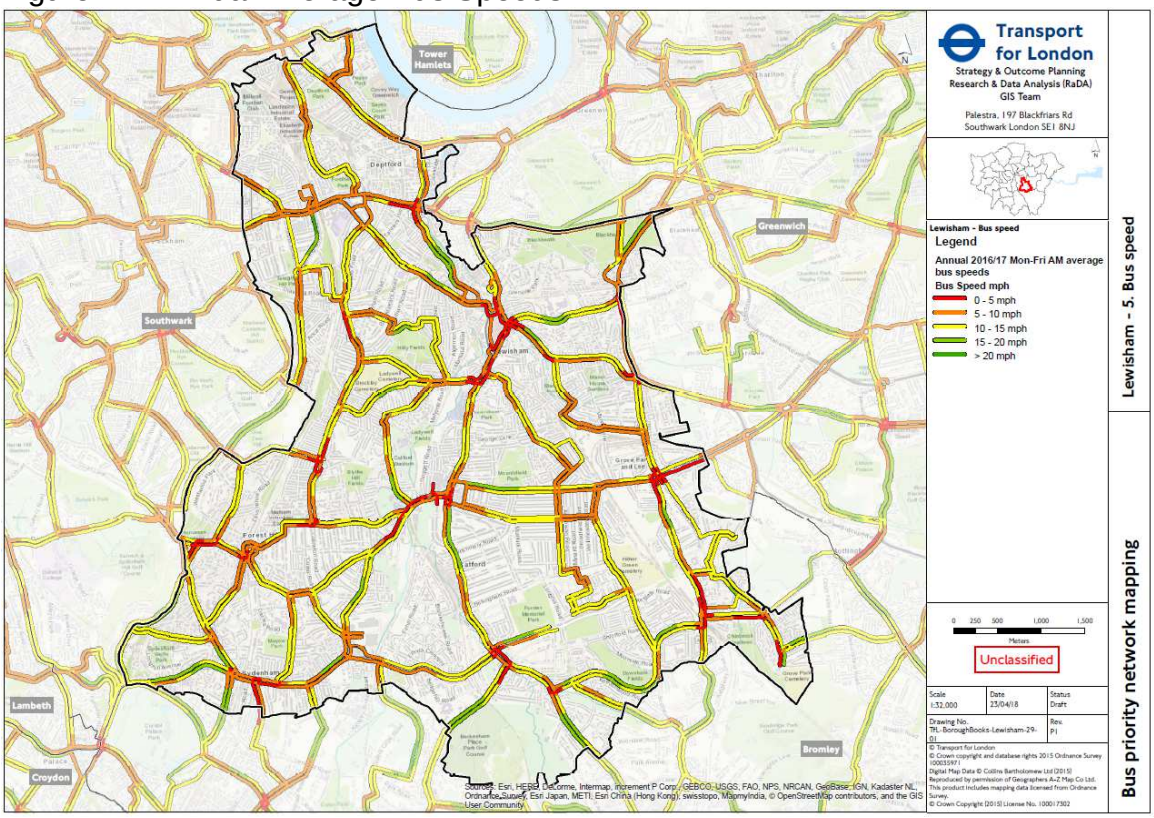
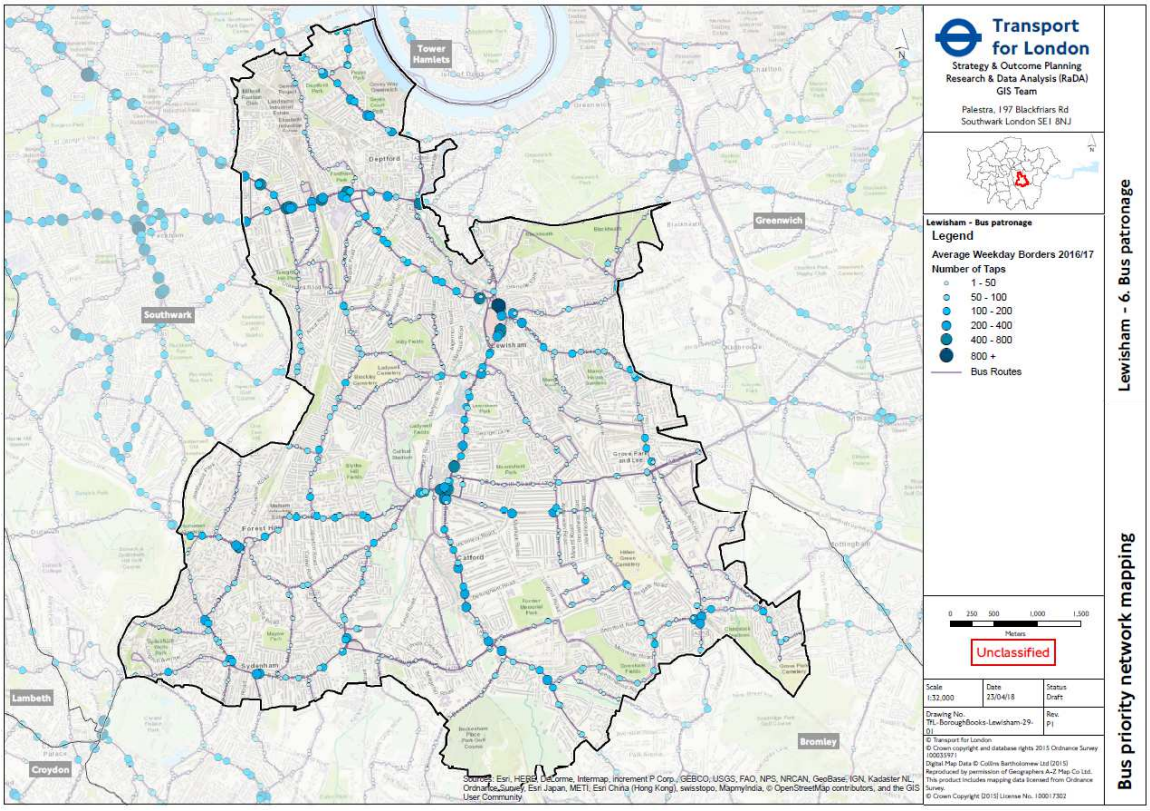


Figure 25: Average Weekday Boarders

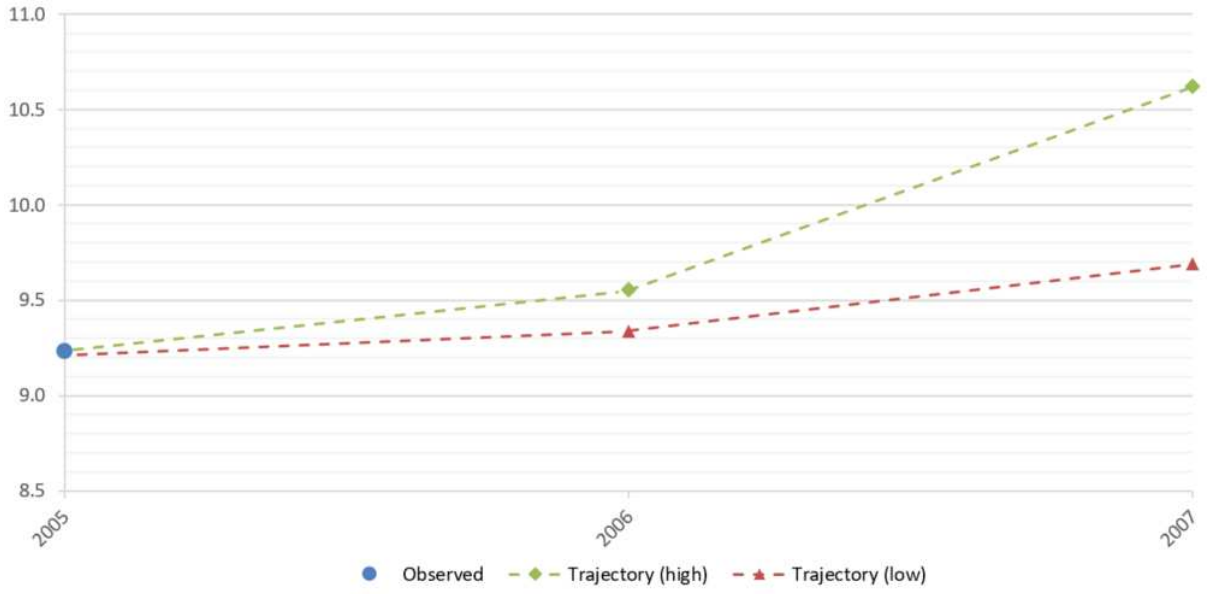


MTS Borough Objectives

Outcome 7: Bus journeys will be quick and reliable, an attractive alternative to the car

Average bus speeds in Lewisham will improve by approximately 5 % to 15% by 2041, from 9.2 to 10.6 miles per hour.

Chart 12: Bus Speeds (mph)



Source: LIP3 MTS outcomes borough data pack v1_1

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

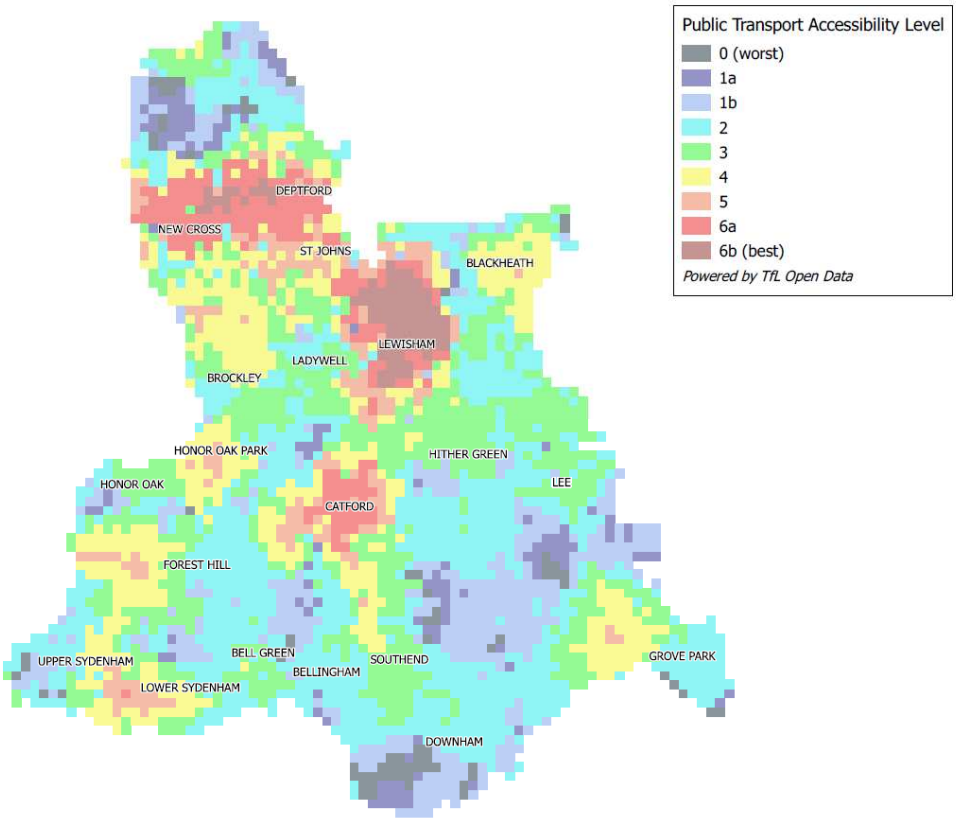
Challenges and opportunities

Lewisham is undergoing significant growth, with the Core Strategy[67] detailing a minimum of 18,165 net new dwellings during the Local Plan (LP) period, and outlining investment in business and retail development. The most recent estimations emerging from the LP is a significantly increased level of development to that that was predicted in original forecasts. As a result, a revised spatial strategy is under development to accommodate this predicted growth, with different development scenarios being explored.

[67] Core Strategy – Local Development Framework, London Borough of Lewisham, 2011

The Core Strategy focuses growth and larger scale developments in the north of the Borough, focussing sustainable growth in key localities such as Lewisham, Catford, Deptford and New Cross / New Cross Gate. As a measure, 82% of the net new dwellings are focussed within these areas, with Deptford and New Cross comprising 58% alone. These areas will also support job growth, supporting facilities and infrastructure through the LP. These growth areas benefit from an existing high Public Transport Accessibility Level (PTAL) as shown in Figure 26.

Figure 26: Lewisham PTAL



The Council's development management policies are contributing towards the promotion of sustainable travel in new developments, such as;

- A restrained and balanced approach to car parking in line with the London Plan standards[68]. The Council places a strong emphasis on reducing car

[68] London Plan, Parking Addendum to Chapter 6, GLA, 2016

dependency within new developments. Policy 14 of the Council's Core Strategy[69] states;

"A managed and restrained approach to car parking provision will be adopted to contribute to the objectives of traffic reduction while protecting the operational needs of major public facilities, essential economic development and the needs of people with disabilities."

- Car-free or car-limited developments in areas with PTAL 4 or higher. This is supported by Policy 29 or the Development Management Policies[70] which aims to ensure the effective implementation of car limited development and other parking standards, to help minimise congestion and reduce vehicle emissions.
- Cycle parking in line with TfL London Cycling Design Standards (2016), and the requirement for good design of cycle facilities in new development, including incorporating facilities such as showers and lockers where appropriate[71].
- Travel Planning, Service and Delivery Planning and Construction Logistics Planning to manage vehicle movements and incorporate sustainable travel options to manage down vehicle use
- The use of Controlled Parking Zones (CPZs) where appropriate to manage existing demand and prevent future parking demand from new development on surrounding streets, as supported by the Council's Core Strategy Policy 14.

Notwithstanding the above, with the rapid growth that Lewisham is experiencing there is a need for wider sustainable travel infrastructure to support these measures. Enough capacity to support this growth will need to be unlocked to maintain acceptable levels of comfort, speed and reliability or risk undermining the appeal of public transport for new development occupiers.

The Council recognises that not all development can be focussed in key local centres. The Local Plan identifies a significant increase in small and infill developments which will result in greater levels of residential growth in new locations supplementing the more traditional development sites found in town centres.

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[69] Core Strategy – Local Development Framework, London Borough of Lewisham, 2011, page 116

[70] Development Management – Local Development Framework, London Borough of Lewisham, 2011

[71] Core Strategy – Local Development Framework, London Borough of Lewisham, 2011, page 116

Development in the most deprived areas of the Borough can lead to positive growth and regeneration. However, the most deprived areas of Lewisham also suffer from lowest quality of public transport infrastructure. This is particularly evident to the far north and south-east of the Borough, where PTALs of 0 to 2 are widespread. The Council's ongoing support for the BLE, incorporating an extension through the south of the Borough to Hayes, as detailed under Outcome 5, would provide a significant step-change in public transport provision for the south of the borough and would elevate the area's potential for development and regeneration.

The Council's LP identifies areas in the north of the Borough as 'Mixed Use Employment Locations' (MELs), which will support regeneration and growth with a mix of uses including residential and a significant element of employment space.

A key challenge for the Council will be to improve the public transport and active travel infrastructure in this area prior to the occupation of new developments through the MELs.

Commuting mode changes are most likely to occur with a change in distance to work associated with a new job or home[72]. It is therefore important that high-quality infrastructure is present on occupation, when new businesses and commuters are most likely to form new travel habits as they relocate.

The Council through the emerging Local Plan policy continue to enforce the values and policies of its LP to encourage development that reduces reliance on private car travel. High-density and mixed-use developments will be encouraged with inclusive, accessible design to reduce the need to travel.

MTS Borough Objectives

Car dependency will be reduced and more people will live in well-connected areas

Lewisham, in conjunction with TfL, will explore opportunities for improved bus frequencies and new routes in the lowest PTAL areas of the Borough. It will also aim to supplement the gap in transport provision with active travel infrastructure to encourage walking and cycling, something that is equally supported within Local Plan

[72] Changes to commute mode: The role of life events, spatial context and environmental attitude, B. Clark, K. Chatterjee, S. Melia, 2016

policy along with bringing forward 'the Lewisham Spine' proposals to link areas to the south-east with public transport hubs and town centres.

Across London, improved rail and bus services will improve connectivity

The Council will continue to support the BLE and LSI proposals alongside other improvements in the Lewisham 'Vision for Rail' document. This will unlock additional capacity to support new development and improve connectivity for residents and employees of the Borough. The Council will also explore the opportunity for improved orbital bus connections to compliment the rail improvements, and provide more public transport connectivity in response to commuting patterns for Lewisham.

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

Challenges and opportunities

A primary challenge in unlocking Lewisham's growth potential is its rail network, which at present is saturated, suffers from crowding with limited high frequency services. The East and South-East London Sub-Regional Transport Plan states:

> *'low levels of frequency can make an area seem less connected, therefore restricting the potential for future housing and employment growth. Improving the frequency and quality of service of National Rail lines, particularly on the North Kent lines, will be key to maximising the growth potential of the sub-region'*[73]

Lewisham has several major development projects underway which would bring significant growth in residential, commercial and employment opportunities. In addition to several schemes already under construction, the following are being brought forward:

- *Convoys Wharf:* 3,500 homes, 53,000m^2 employment and retail, 13,000m^2 community facilities, a hotel, restaurants, cafes and public access to the riverfront. Outline Planning Permission granted.
- *New Bermondsey:* up to 2,400 homes (subject to successful planning), 18,000m^2 employment and retail, leisure facilities, up to 10,000m^2 hotel floorspace, restaurants and cafes. Served by a new Overground station, links to South Bermondsey Station, two new bus routes, and new Quietway cycling and pedestrian routes. Planning Permission granted.

[73] East and South-East London Sub-Regional Transport Plan, 2016 Update, TfL, page 88

- *Foundry, Arklow Road*: 276 homes. Under construction to be completed in 2019.
- *The Timberyard Deptford:* 1,132 homes, a new linear park, flexible studio space, shops, restaurants, and flexible incubator business space. Under construction with first phase to be completed in 2019/20.

Lewisham's two Opportunity Areas (OA) – Lewisham, Catford and New Cross, and Deptford Creek / Greenwich Riverside – hold the potential to deliver 10,000 new jobs and 13,000 new homes[74]. The Convoys Wharf development is located within the Deptford Creek / Greenwich Riverside OA, and should bring regeneration to one of Lewisham's most deprived areas. The existing level of deprivation also manifests itself in transport provision, with low PTAL and poor east-west connections.

The proposed New Bermondsey Overground Station will significantly improve the public transport provision for the north-east of the Borough and unlock potential growth and regeneration as a result. However, the north-west of the Borough remains in need of improvement. The area is bordered by the Thames and the London Bridge – Dartford line, and as a result experiences a level of severance in movement. Better connections will need to be facilitated to fully unlock the OA's growth potential. Lewisham's Deptford Parks Liveable Neighbourhood project seeks to improve walking and cycling connectivity in this area.

The Lewisham, Catford and New Cross OA spans across several centres and as a result already benefits from well-connected transport links. To maximise the scope for intensification in the area, further capacity will need to be made available in the public transport network, as discussed in previous sections. The BLE has the potential to enable an additional 65,000 journeys in the morning peak, and this could be increased should the extension to Hayes be brought forward as a single phase. The LSI proposals will compliment this, facilitating the additional 18,000 interchanging passengers that are expected as a result. The LSI will reinforce Lewisham as a centre, bringing in visitors and unlocking potential for retail development. This would assist in Lewisham being elevated to metropolitan status in line with the aspirations of the Core Strategy[75].

[74] London Plan Annex One: Opportunity and Intensification Areas, GLA, 2016

[75] Core Strategy – Local Development Framework, London Borough of Lewisham, 2011, page 52

MTS Borough Objectives

The Council will therefore explore opportunities to improve east-west links in the north of the Borough to complement the New Bermondsey Station proposals and unlock the full potential of the Deptford Creek / Greenwich Riverside OA.

The Council will support the BLE and LSI, which are both seen as significant proposals in unlocking the full potential for the Lewisham, Catford and New Cross OA. Lewisham will also continue to drive for the BLE to be completed beyond Lewisham station to Hayes as a single phase. The Council contends that this would serve the Lewisham, Catford and New Cross OA in full and open further opportunities for growth in the south of the Borough, addressing the increased ambitions for higher growth emerging from the London and Local Plans. It would also bring opportunity to improve orbital bus routes in the south and benefit the currently under-served south-east.

Other Mayoral Strategies[76]

Vision Zero Action Plan, July 2018

Every year more than 2,000 people are killed or seriously injured on London's streets. In London in 2016, more than 30,000 people were injured in road collisions. People from more deprived areas, some ethnic minorities, disabled people, children and older people are disproportionately affected by road danger. People are more at risk per journey when walking and cycling in outer London than in central London.

The Mayor, together with TfL, has produced this action plan to set out a programme to achieve the aim of Vision Zero; to eliminate all deaths and serious injuries on London's transport network.

As part of this, the action plan sets out aims to extend the current 20mph speed limits in force on the Transport for London Road Network (TLRN). These new speed limits will apply to the A21 between Catford and Lewisham, sections of the South Circular Road and the A2. Lewisham Council welcomes this expansion and wishes a future progression to see the entire TLRN in the Borough under 20mph speed limits. The Borough will work with TfL to achieve this, which will assist in the achievement of both the Vision Zero aim and the LIP objective of making Lewisham's streets will be safe, secure and accessible to all.

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[76] Requirement R12: Other Mayoral strategies are also relevant to LIPs, and boroughs should have regard to these as they are published.

Walking Action Plan, July 2018

Walking is at the heart of the MTS, and is integral to achieving the overall mode share aim of 80 per cent of all trips in London to be made on foot, by cycle or using public transport by 2041. The vision of the action plan is to make London the world's most walkable city where walking is the most obvious, enjoyable and attractive means of travel for all short trips.

Providing an attractive walking environment for pedestrians in Lewisham will be essential in achieving the objectives of this LIP. All four of the LIP objectives will be achieved to some extent through improving walkability. The Walking Action Plan states;

> *"Enabling more people to travel on foot will make London's streets more efficient. A better walking environment will help connect communities and reduce road danger, air pollution, noise, and health and economic inequalities. Our streets will provide places where people want to spend time, and walking will boost local economies, as well as helping to create a well-functioning city." (page 11)*

London Environment Strategy, May 2018

The Environment Strategy outlines the Mayor's aspiration to turn London into a zero carbon city, and to have the best air quality of any major world city by 2050.

With road traffic being the biggest contributor to air pollution, this LIP's aspiration to reduce car ownership and use will support The Environment Strategy in achieving these aims.

London Housing Strategy, May 2018

As part of the Mayor's vision for good growth, the Housing Strategy outlines five priorities:

- Building homes for Londoners
- Delivering genuinely affordable homes
- High quality homes and inclusive neighbourhoods
- A fairer deal for private renters and leaseholders
- Tackling homelessness and helping rough sleepers

The objectives set through this MTS will contribute towards the first three priorities, as Lewisham works to unlock opportunities for new development through investment

in its walking and cycling network and creating new links and capacity on its public transport network.

The Borough's aims to make Lewisham's streets accessible to all will support new development in creating inclusive neighbourhoods, and creating a Borough where pleasant, reliable and attractive transport options are available without the need to own a car will create an inclusive network where everyone can access the goods, services and opportunities they need to thrive.

Draft London Economic Development Strategy, December2017

The Draft Economic Development Strategy centres on a vision to create a fairer and more inclusive economy, where 'no one finds themselves locked out from opportunity'.

This vision will be supported in Lewisham, where the Council aims to tackle social inequalities by creating better links from the Borough's most deprived areas to town centres and services. This will help in tackling levels of 'Transport Poverty', where residents may feel cut off from services, employment or education opportunities through lack of transport options.

The Strategy recognises the role that London's transport plays in encouraging economic growth, and the pressures this growth puts on the network. It identifies the current capacity and crowding constraints on the public transport network, and the requirement to encourage a modal shift from private vehicle use. Solving these issues will aid in supporting economic growth in London and the objectives set out within this LIP will support in achieving this.

Draft London Culture Strategy, March 2018

The Mayor's Vision for culture is based on four priorities:

- Love London: more people experiencing and creating culture on their doorstep
- Culture and Good Growth: supporting, saving and sustaining cultural places and spaces
- Creative Londoners – investing in a diverse creative workforce for the future
- World City – maintaining a global powerhouse in a post-Brexit world

Lewisham aims to create a street network that is appealing to active travel, which in itself is a more social activity than alternative transport modes. These modes enable people to experience their surroundings at a more intimate level and engage with local cultural places and spaces.

The Lewisham Spine (A21 Healthy Streets Corridor) does not just aim to be a space for transit, but also for creating places to linger and enjoy, with 'piazza'-type environments[77]. This will foster spaces where cultural activities, such as street performers, vendors and musicians have the potential to thrive.

Draft Health Inequalities Strategy, August 2017

One of the Mayor's key ambitions for this Strategy is to create Healthy Places. The Strategy aims to create healthy, pleasant streets and green spaces with good air quality.

This directly aligns with both the MTS outcomes and those of this LIP, which aims to make Lewisham's streets clean and green with reduced air pollution from road traffic and more street trees.

[77] Lewisham Cycle Strategy, London Borough of Lewisham, 2017, page 27

3. The Delivery Plan

Introduction

This chapter sets out our Delivery Plan for achieving the objectives of this LIP. It includes:

- Linkages to Mayor's Transport Strategy priorities
- A list of potential funding sources for the period 2019/20 to 2021/22;
- Long-term interventions
- Three-year indicative Programme of Investment for period 2019/20 to 2021/22
- A detailed annual programme for 2019/20

Linkages to the Mayor's Transport Strategy priorities[78]

The Delivery Plan was developed to align the borough's projects and programmes with the policy framework of the Mayor's Transport Strategy, the overarching mode share aim, each of the nine outcomes, and the relevant policies and proposals.

Table 3.1 outlines the linkages between the projects and proposals included in the Delivery Plan, and the MTS outcomes that they contribute towards achieving.

[78] Requirement R13: Boroughs are required to outline projects and programmes that contribute to the delivery of the Mayor's Transport Strategy – including the overarching mode share aim, each of the nine outcomes and the relevant policies and proposals – in preparing a Delivery Plan.

Table 3.1: Linkages between LIP projects and programmes and the Mayor's Transport Strategy Outcomes

Project / Programme	MTS mode share	MTS outcomes							
	Improving active, efficient and sustainable mode share	No !:-Active	No 2:- Safe	No 3:-Efficient	No 4:- Clean & Green	No 5:- Connected	No 6:- Accessible	No 7:- Quality	Nos 8 & 9 Sustainable Growth/Unlocking
Corridors, Neighbourhoods and Supporting Measures									
Crofton Park Corridor	✓	✓	✓	✓	✓	✓	✓	✓	✓
Deptford Parks Liveable Neighbourhoods	✓	✓	✓	✓	✓	✓	✓	✓	✓
A21 Healthy Streets Corridor outcome definition	✓	✓	✓	✓	✓	✓	✓	✓	✓
Healthy Neighbourhoods	✓	✓	✓	✓	✓	✓	✓	✓	✓
Local Pedestrian Improvements	✓	✓	✓	✓	✓	✓	✓	✓	✓
Local Cycling Improvements	✓	✓	✓	✓	✓				✓
Road Danger Reduction	✓	✓	✓	✓	✓				✓
Air Quality and Noise	✓		✓		✓			✓	
Safer and Active Travel		✓	✓	✓					
Public Transport Supporting Interventions	✓			✓	✓	✓	✓		✓
Small Scale Schemes	✓	✓	✓	✓	✓				
Completion of previous years schemes	✓	✓	✓	✓	✓				

TfL Business Plan[79]

In developing and preparing the Borough's programme of works (as outlined in the Delivery Plan), the Borough has considered the Mayor's aspiration to deliver the major projects in TfL's Business Plan (and the milestones associated with these projects) including major infrastructure associated with Growth Areas and Opportunity Areas.

TfL Projects

The overarching aim of the Mayor's Transport Strategy (MTS) is that 80 per cent of trips will be made on foot, by cycle or public transport by 2041. The following projects have been prioritised according to the aims of the MTS and will have implications for the Borough of Lewisham.

- **Healthy Streets:**
  - Cycle Superhighways: legible and safe protected cycle routes
  - Liveable Neighbourhoods programme: borough schemes to reduce motor vehicle trips, improve health and air quality
  - Vision Zero – reducing road danger and ensuring that, by 2041, nobody is Killed or Seriously Injured (no KSIs) as a result of road crashes
  - Rotherhithe to Canary Wharf crossing
- **Buses:**
  - Addressing air pollution, supporting low emission bus zones
  - Reducing bus services in Central and Inner London
  - Bus priority investments providing high quality infrastructure required for reliable public transport network sustaining a growing city
- **Train:**
  - DLR rolling stock replacement – 43 new trains replacing current rolling stock, adding 30 per cent more capacity on the network
  - Modernisation of the Circle, District, Hammersmith & City and Metropolitan lines
- **Other:**
  - Silvertown Tunnel
  - Ultra Low Emission Zone (ULEZ)

[79] Requirement R14: When preparing their LIPs, boroughs are required to take into account the major projects and investment in all modes of transport, as well as the investment in the road network that may impact on their borough, as set out in the TfL Business Plan.

Implications for borough

Lewisham as an Inner London borough will be affected by the Mayor's plan to reduce bus services in Central and Inner London[80], and fleet modernisation as a means to improving air quality. This would mean less frequent bus services for Lewisham which could risk making bus travel less attractive. Real time journey information would need to be sufficient for people to make informed travel choices. Bus services are the public transport backbone for Lewisham residents. The south east of the borough would in particular benefit from improved bus services, accessibility and capacity.

Population growth for Lewisham is expected to rise by 16% between 2018 and 2041, increasing demand on Docklands Light Railway (DLR) which links Lewisham and Elverson Road stations to Greenwich and Canary Wharf. This issue will be addressed by the Rolling Stock Replacement Programme, 43 new trains replacing current and adding 30 per cent more capacity on the network. It will relieve over-crowding on current services approaching Canary Wharf[81], improving customer satisfaction. Lewisham has been one of the seven stations that contributed to 50 per cent of DLR's growth over the last four years[82] and a modern fleet will help in attracting more new customers.

Certain roads have been strategically identified via the TfL business plan to prioritise active modes so boroughs will be obliged to consider walking and cycling when re-designing their roads. TfL have identified they will support investment for sustainable transport, therefore boroughs should deliver projects that align with these aspirations.

Cycle Super Highway 4 (CS4) will pass through and transform roads in Deptford with an uninterrupted, protected cycle route between Tower Bridge and Greenwich. CS4 will also provide new pedestrian crossings, better public spaces and bus stop changes which the residents of Deptford will benefit from.

This will include the reallocation of road space, with some limited impact on journey times, traffic movements and parking arrangements.[83] There will also be temporary construction disruptions caused by CS4. However, Lewisham will environmentally

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[80] Business Plan 2018/19 to 2022/26, TfL, page 52

[81] East and South-East London Sub-Regional Transport Plan, 2016 Update, TfL, page 86

[82] TfL London Overground and Docklands Light Railway Growth, page 9; 2015, http://content.tfl.gov.uk/rup-20151016-part-1-item09-lo-and-dlr-growth.pdf

[83] Cycle Superhighway Route 4 from Tower Bridge to Greenwich Consultation Report, 2018, TfL

benefit long term from CS4 by reducing the dominance of motor traffic, improving pedestrian and cycle connectivity and protecting bus journey times making it a viable transport option[83]. Residents in Lewisham will be able to better enjoy their surroundings and encourage more people to travel sustainably. It is proposed CS4 will be accessible for cyclists with disabilities[83], providing greater choice in transport options for people with disabilities and increasing social inclusion.

The new River Thames crossing between Rotherhithe to Canary Wharf for pedestrians and cyclists will provide an environmentally friendly alternative travel option for people in the surrounding area and alleviate congestion on existing routes[84] used to access Lewisham. The Council's Liveable Neighbourhoods proposals will help to provide onward connections from the new crossing into Lewisham.

Lewisham has a full council motion to object to the Silvertown Tunnel. The proposals as they stand do not adequately address the concerns of the council and Lewisham's objections to the scheme remain. In summary, these objections are;

- The scheme is not coming forward as part of a package of crossings
- The effectiveness of the toll to manage traffic
- The scheme would have an unacceptable impact on LB Lewisham's road network and likely subsequent deterioration of air quality
- Inadequate monitoring and mitigation

Air quality in the Borough is already poor and the entire borough to the north of the South Circular Road is within a designated Air Quality Management Areas (AQMA). Silvertown Tunnel's increase in traffic volumes will reduce the air quality in Lewisham further, restricting the borough in achieving its MTS air quality targets and having potential negative impacts on the health of Lewisham's community.

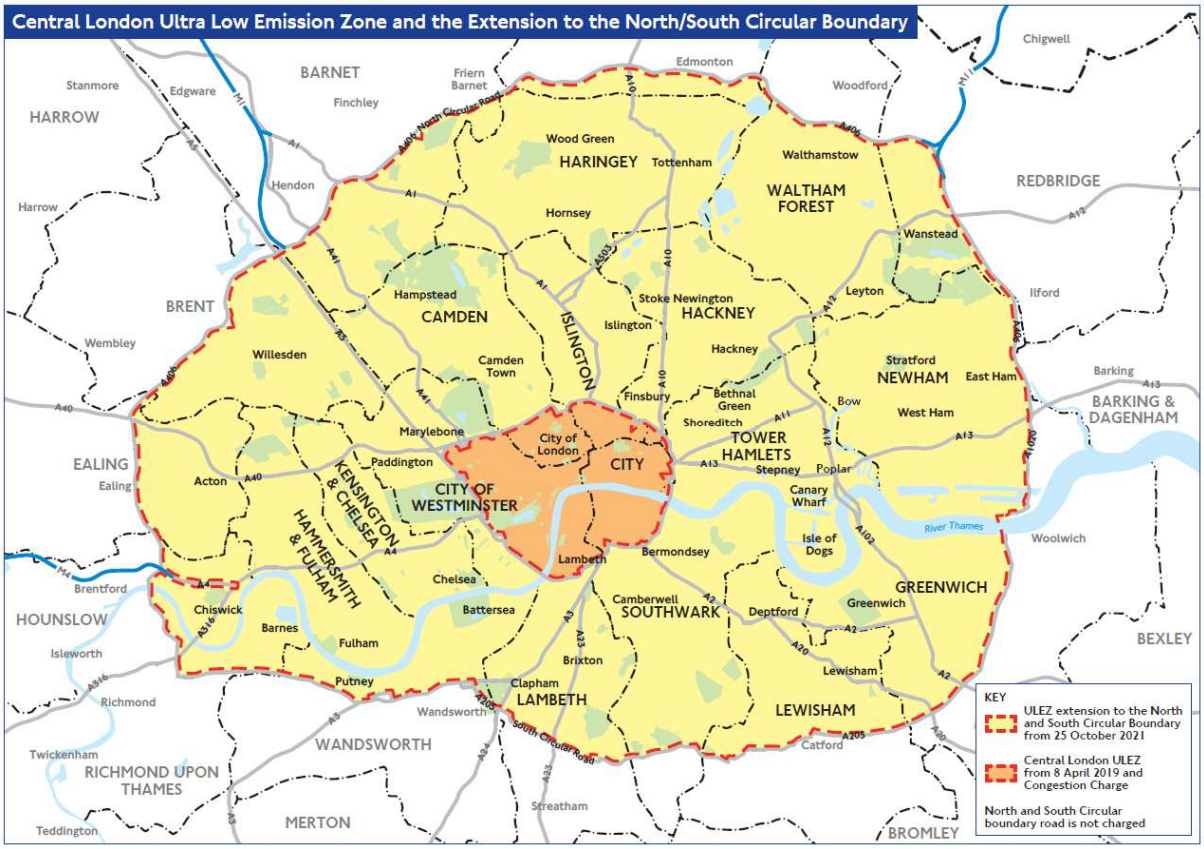
Although TfL made some minor changes to the scheme proposals in response to the consultation, the above concerns still remain. However, TfL now plans to implement the scheme, with DfT approval acquired in May 2018, TfL is now working with local boroughs and land owners to agree details of land acquisitions, constructions plans and access arrangements. A contractor is in the process of being procured, with construction anticipated to commence from mid-2019.

Lewisham falls within the boundary for the extended Ultra Low Emission Zone (ULEZ) which will come into force on the 25th October 2021. This will go a long way in tackling London's poor air quality issues. Whilst this extension is welcomed and supported by

[84] Rotherhithe to Canary Wharf crossing Consultation Report, 2018, TfL

the Council, the Council's preference would have been for the zone to be extended to cover the whole of London. The extension of the ULEZ to the south circular only will have infrastructure and funding implications for Lewisham. For example, necessary steps will need to be taken to ensure that parking pressures don't increase outside of the ULEZ and consideration given to the impact of the scheme in areas of low Public Transport Accessibility (PTAL).

Figure 27: Extended boundary for Inner Ultra Low Emission Zone (ULEZ)



Source: https://tfl.gov.uk/modes/driving/ultra-low-emission-zone

The TfL Business Plan outlines the commitment to adopt the Vision Zero approach. As part of this, TfL have detailed plans to implement 20mph speed limits on TLRN roads in town centres and other high-risk areas[85]. Namely, on the South Circular Road at Forest Hill and Catford, the A21 between Catford and Lewisham, and the entirety of the A2 and A202 within the Borough. The Council welcomes this proposal, however wishes to pursue a complete 20mph limit on all TLRN roads within the Borough to complement the existing comprehensive 20mph limits on all Borough-controlled roads.

[85] Vision Zero Action Plan, TfL, 2018, page 14

Complementary works to be carried out by the borough

Lewisham manages up to 95 per cent of its road network and the Council will develop a traffic reduction strategy with the assistance of TfL, including measures for local and freight traffic to tackle congestion on London roads.[86]

Lewisham will support the review of bus services in Inner London, provided it is supported by improved bus priority and leads to an overall more effective, efficient and reliable bus network, opening opportunities for better services in the underserved south- east of the borough.

The Council will support the extension of the ULEZ through the delivery of the Air Quality Action Plan (AQAP). The London Borough of Lewisham Air Quality Action Plan spans from 2016 to 2021. There is commitment for annual review and appraisal of progress[87].

The North Deptford regeneration area, consisting of the New Cross Gate masterplan and Deptford Liveable Neighbourhoods, incorporates the future CS4 to be routed via the A200. Complementary works will be brought forward through these schemes to ensure the surrounding area is fully integrated providing a high quality active travel network beyond the CS4 route.

The Council will conduct continued engagement with stakeholders, residents and businesses within Lewisham to understand public views and make sure public money is spent in the most effective way.

[86] Business Plan 2018/19 to 2022/26, TfL, page 22

[87] Air Quality Action Plan 2016 – 2021, London Borough of Lewisham

Sources of funding[88]

Table 3.2 below identifies potential funding sources for implementation of this LIP, including the LIP funding allocation from TfL, contributions from the borough's own funds, and funding from other sources.

The key source of funding is the borough's LIP allocation. Figures provided by TfL indicate that the borough will receive £1,940,000 per year for 2019/20 to 2021/22, a total of £5,820,000. The value of the current 2018/19 delivery plan was £2,273,000 which represents a reduction of 15% annually between 2018/19 and the LIP3 annual programme. The 2019/20 to 2021/22 figures are not guaranteed which makes it difficult to prepare and consult on a delivery plan.

In addition to the above, the borough will receive £1,547,000 from TfL between 2018/19 and 2022/23 in response to the Deptford Park Liveable Neighbourhood bid. The total value of the project is £2,587,000 and is proposed to be made up of the following sources;

Source	Value
TfL liveable neighbourhood	£1,547,000
TfL LIP	£50,000
GLA – Good Growth*	£800,000
LB Lewisham Capital**	£90,000
S106**	£100,000
Total	£2,587,000

* *Subject to successful bid outcome*
** *Indicative – to be confirmed*

The borough also uses its own resources and resources from developers to pursue local objectives and ensure that the road network remains in a safe and serviceable condition. The sums available from developers via section 106 agreements are £2,700,000.

[88] Requirement R15: Boroughs are required to identify all interventions that are intended to be wholly or partly funded using LIP funding in the borough's Programme of Investment. Boroughs should identify the proposed funding source for each of these interventions, ie how much is from LIP funding allocations and how much comes from other sources (for example, the council's own capital and revenue sources, Section 106/CIL contributions, or other sources of TfL/GLA funding, such as Growth Areas).

Table 3.2: Potential Funding for LIP Delivery

Funding source	2019/20	2020/21	2021/22	Total
	£k	£k	£k	£k
TfL/GLA funding				
LIP Formula funding –Corridors & Supporting Measures	1,940.4	1,940.4	1,940.4	5,821.2
Discretionary funding [Liveable Neighbourhood]	157	940	450	1,547
External Funding Bids[1]	0	250	250	500
Local Transport Fund	100	100	100	300
Sub-total	2,197.4	3,230.4	2,740.4	8,168.2
Borough funding				
Capital funding[2]	4,000	4,000	4,000	12,000
Revenue funding	0	0	0	0
Parking / EV charge point revenue[3]	TBC	TBC	TBC	TBC
Sub-total	4,000	4,000	4,000	12,000
Other sources of funding				
S106 allocated	333	333	333	999
S106 unallocated[4]	1,000	1,000	1,000	3,000
CIL[5]	0	0	0	0
European funding	0	0	0	0
Sub-total	1,333	1,333	1,333	3,999
Total	**7,530.4**	**8,563.4**	**8,073.4**	**24,167.2**

[1] Figures represent indicative potential funding bid amounts

[2] This figure is an averaged total across the complete Capital programme including once off funding as well as annual allocations such as footway and highway resurfacing

[3] Currently no significant funding is generated for use on other transport related projects however there is an aspiration that both programmes will generate revenue in the future.

[4] Figures are taken from unallocated transport S106 funding. It is assumed that additional site-specific S106 contributions will come in during the LIP period, however the Council does not conduct forecasting figures on this.

[5] The Council are in the process of developing a CIL spending strategy. The amount of funding available for the LIP3 programme is currently unknown.

Long-Term interventions to 2041[89]

In the medium to long-term the Council believes that a number of significant, but currently unfunded, investments will be required to ensure the economic and social vitality of the borough and to achieve the MTS and LIP objectives. Lewisham is undergoing rapid change with new major development. Residential and economic development in the Borough's two Opportunity Areas (OAs); Lewisham, Catford and New Cross, and Deptford Creek / Greenwich Riverside, will spur investment and population growth, with the potential to deliver 10,000 new jobs and 13,000 new homes[90]. This growth will lead to increased demand and new pressures on the Borough's transport network.

To support and encourage this growth in the Borough, the Council recognises the importance of investing in local business and services that will continue to support and allow communities to thrive. Several local shopping parades have been identified for aspirational improvement schemes that will help to elevate the attractiveness of Lewisham's local high streets and encourage people to spend time there, supporting local businesses to prosper.

The proposed Bakerloo Line Extension (BLE), the Lewisham Strategic Interchange (LSI), Brockley Interchange and metroisation, along with other measures outlined in the Council's Rail Vision, will support this growth by providing capacity increase and more frequent, reliable services. The Council also aims to prioritise improving sustainable transport links to the south-east of the Borough, which is currently under-served by public transport and experiences some of the highest car dependencies and lowest employment rates in the Borough. To influence a significant modal shift away from car use, the Council acknowledges that a significant step-change is required to make alternative modes more appealing. Schemes such as The Lewisham Spine (A21 Healthy Streets corridor) and the BLE to Hayes as a single phase will bring the Borough towards achieving this step-change, providing radial north-south links to the more urban north and unlocking potential for orbital bus routes linking the south of the Borough to the BLE.

The schemes that have been identified to support the Borough to grow, thrive and meet the MTS outcomes up to 2041 are summarised in Table 3.3 below. Indicative funding and indicative but uncommitted timescales are outlined.

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[89] Requirement R16: Boroughs are required to provide a list of potential schemes up until 2041, together with a short explanation of the reasons for their inclusion in the Delivery Plan.

[90] London Plan Annex One: Opportunity and Intensification Areas, GLA, 2016

Table 3.3: Long-term interventions up to 2041

Project	Approx. date	Indicative cost	Likely funding source	Comments
Local High Streets and Shopping Parades	TBC	£1.5m per scheme	TfL / Borough / S106 / S278 / CIL	Measures including public realm, active travel and safety improvements at local High Streets and shopping parades. Potential schemes have been identified at Kirkdale,(Sydenham), Hither Green Lane, Burnt Ash Road and the remainder of the Brockley corridor.
More low emission bus corridors	2020	TfL to confirm	TfL	Expansion of low emission bus zones beyond the current zones on A21 and A2.
LEZ - tightening of standards	Post-2021	TfL to confirm	TfL	Tighten LEZ standards to same as ULEZ extension.
The Lewisham Spine – A21 Healthy Streets Corridor	2025	£10m (Borough cost only) £20m (TfL cost)	TfL / Borough	Linking CS4 (A200) to the southern Borough boundary on the A21. Including Cycle Superhighway standard facilities, low emission bus zone, healthy streets improvements with piazza-type environments[91]. This project includes a major public realm/healthy streets scheme on Deptford Church Street, but not Lewisham Town Centre and Catford Regeneration Masterplan schemes.
Cycle network improvements (see Council's Cycling Strategy)	2041	tbc	TfL/borough/ s106	Delivering the network of routes set out in the Council's Cycling Strategy
A2 New Cross Road / Amersham Gyratory removal	2025	£30m for A2 element.	TfL / Borough / S106 / S278 / CIL	Transformation of A2 New Cross Road and area surrounding station. Improve pedestrian comfort and permeability, create an easily accessible High Street, improve cycle facilities and reduce traffic dominance[92].

[91] Lewisham Cycle Strategy, London Borough of Lewisham, 2017

[92] Draft New Cross Gate Area Framework, 2018

Project	Approx. date	Indicative cost	Likely funding source	Comments
Bakerloo Line Extension	2023 – 2028/29	£3,600m (for an extension to Lewisham)	TfL	Extension of the Bakerloo Line beyond its current termini at Elephant & Castle, to serve New Cross Gate and Lewisham. The Council urges the full extension to Hayes to be brought forward as a single phase to serve Catford.[93]
Lewisham Station & Interchange	2028	£250m	Network Rail / TfL / Borough / s106 / CIL	Enhancements to capacity and station quality to create a high-quality interchange between National Rail, DLR, the future BLE, buses, taxis, walking and cycling. Place-making measures to help elevate Lewisham Town Centre to a Metropolitan Centre.
New Cross to Lewisham Overground Extension	TBC	TBC	TfL	An extension of the London Overground line beyond its current terminus at New Cross to Lewisham. This will provide more capacity and improve connectivity and resilience, and ensure that Lewisham joins the 3 other Strategic Interchanges in London as gateways to the Overground.
Step-Free Station Access	TBC	TBC	TfL / Network Rail	Create step-free access to all rail stations within the Borough.
Ringway Corridor (Southend Lane and Whitefoot Lane) Improvements	2030	£4m	TfL / Borough / S106 / S278 / CIL	Improve public realm and active travel links using excess carriageway space. Explore potential for improvements such as linear parks, a bus priority corridor, and active travel corridor.
Lewisham Town Centre	2030	£10m	TfL / s106/278	To elevate the attraction of the Town Centre to local people through a range of improvements to goods and services, as well as public realm to provide a high-quality environment.
Catford Regeneration Masterplan	2021 (for A205 and A21) aspects	£30m	TfL / Borough / S106 / S278 / CIL	Rerouting the South Circular Road to provide more pedestrian space and improvements to transport infrastructure.

[93] Bakerloo Line Extension Document, London Boroughs of Lewisham and Southwark

Project	Approx. date	Indicative cost	Likely funding source	Comments
New Bermondsey Station	TBC	£12m	TfL / S106	A new London Overground station to be brought forward through the regeneration scheme of New Bermondsey.
Brockley Station Interchange	2030	TfL to confirm	Network Rail / TfL	Creation of a high-level platform at Brockley Station to provide an interchange between the East London Line and the Lewisham – Victoria Line.
Brockley Station western entrance reopening	TBC	TBC	Network Rail / TfL	Reopening of a direct passenger entrance to the western platform at Brockley Station to reduce overcrowding at main station entrance.
Metroisation	TBC	TBC	TfL	Reorganisation of services to provide more regular trains on a simplified route network, providing frequent metro-style services on standardised routes.
New or improved bus services in the south of the borough	TBC	Dependent on route	TfL/ s106 contributions	New or improved bus services in areas with low Public Transport Accessibility Levels, including new orbital links.

Three-year Indicative Programme of Investment[94]

The Three-Year Indicative Programme of Investment has been completed in Table 3.4 below. 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.

Table 3.4: Three-year indicative programme of investment (2019/20 to 2021/22)

London Borough of Lewisham TfL BOROUGH FUNDING 2019/20 TO 2021/22	**Programme budget**		
	Allocated 2019/20	**Indicative 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
LOCAL TRANSPORT FUNDING (LTF)	£k	£k	£k
Local Transport Funding	100	100	100
Sub-total	100	100	100
DISCRETIONARY FUNDING	£k	£k	£k
Deptford Parks Liveable Neighbourhoods	157	940	450
Sub-total	157	940	450
EXTERNAL FUNDING BIDS	£k	£k	£k
Deptford Parks Liveable Neighbourhoods*	0	250	250
Sub-total	0	250	250
All TfL borough funding	£2,197k	£3,230k	£2,740k

** Subject to successful bid outcome*

[94] Requirement R17: Boroughs are required to produce a costed and funded high-level indicative Programme of Investment that covers, by year, the three-year period 2019/20 to 2021/22.

Supporting commentary for the three-year and annual programme [95] / [96]

The programmes set out in the indicative programme of investment seek to deliver the outcomes of the MTS alongside the Lewisham objectives. Where possible, LIP funding will be supplemented with developer funds and in some cases these funds can deliver entire projects without the need to rely on TfL or council funding.

The programme maintains the principles of the 'corridors, neighbourhoods and smarter measures' approach and has used these geographic principles to develop a programme to deliver benefits to both key transport links in the borough and wider environmental improvements to its distinct and unique neighbourhoods.

During the summer of 2018, Lewisham Council launched a boroughwide consultation on the Commonplace platform to gather public opinion on local transport provision and condition. The consultation was run over 8 weeks and asked the public to suggest a scheme by gathering as many ideas as possible to improve transport and streets in the borough, from the people who live and work here. The following is taken from the consultation page;

> *'They don't have to be big suggestions: anything from accessibility problems such as a missing dropped kerb to new cycle routes to much bigger opportunities such as improvements to a town center street design are welcome suggestions. Over the coming months, we will be able to build up a picture of what issues are out there in Lewisham and develop schemes that aim to address these'.*
>
> ***'**Your Ideas will help to shape Lewisham's Transport Strategy for the coming years (2019-2041). We often refer to this strategy as the 'Local Implementation Plan' (LIP)'.*

Over 2,250 suggestions were received from the public and over 8,880 comments or 'likes' on those suggestions. The suggestions and comments have been used in

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[95] Requirement R18: Boroughs are required to provide supporting commentary on: a. How the three-year Programme of Investment has been derived, including how potential interventions have been identified and prioritised, and practical considerations relating to timescales, capacity and consultation b. The role of revenue-based investment, policy decisions, and third-party actions (including commitments outlined in TfL's Business Plan and investment programme) in delivering the borough's LIP objectives c. How the delivery of the Mayor's priorities will be supported at a local level.

[96] Requirement R21: Boroughs are required to provide supporting commentary on: a. How the annual Programme of Investment has been derived, including how potential interventions have been identified and prioritised, and practical considerations relating to timescales, capacity and consultation b. The role of revenue-based investment, policy decisions, and third-party actions (including commitments outlined in TfL's Business Plan and investment programme) in delivering the borough's LIP objectives c. How the delivery of the Mayor's priorities will be supported at a local level

addition to borough officer workshops to develop and shape the three-year programme of investment. This involved looking at the types of schemes that are needed in order to deliver the MTS objectives, alongside the types of issues that are important to those who responded to the Commonplace consultation. It was established that there was significant overlap between these considerations. A summary of the types of concerns raised through Commonplace is provided below, with the volume of comments received in the left-hand column.

Top comment themes from the Commonplace consultation

As can be seen, the top five most commonly tagged themes amongst submitted comments all have a direct correlation with the MTS and LIP objectives and proposed programme lines. Negative sentiments are shown in red, whilst positive sentiments are shown in green. In particular, the high number of negative sentiments around pedestrian and cycle friendliness aligns with the MTS and LIP aspirations to have more people travelling actively, and to create a network of healthy streets where travel by sustainable modes is the most attractive option. Comments relating to pollution and congestion relate to the MTS and LIP objectives of creating clean and green environments and reducing traffic volumes, whilst the comments on fast traffic align with the objectives of traffic reduction and creating a safe and secure environment in Lewisham's streets.

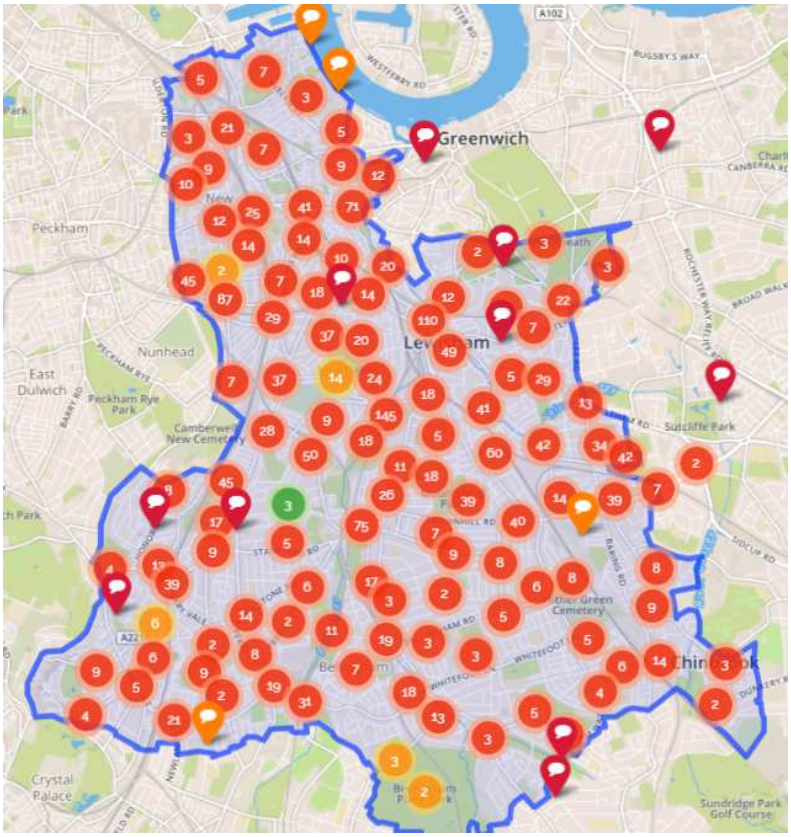
Top “How could we make it better” themes for improvements from the Commonplace consultation

Tags

#	How could we make it better?	Sentiment
624	Slow down traffic	
535	Safer roads	
505	Enforcement	
454	Close rat-runs	
397	Other	
393	Safer junction	
354	Add crossing	
330	Improve pavements	
303	Regulate Parking	
299	Beautify	
281	More cycle paths	
232	More street trees	
206	Wider pavements	
130	More places to walk	
103	Better lighting	
73	More facilities for disabled people	
72	Places to sit	
61	Provide drop kerbs in this location	
48	Fewer signs and clutter	
23	Better bus shelters	

As shown, themes emerging from suggested improvements most commonly relate to reduction in traffic volumes and safety. The funding programmes to be brought forward through this LIP align with these suggestions; in particular, the Road Danger Reduction, Healthy Neighbourhoods, and Local Pedestrian and Cycling Improvements programmes.

The following Figure shows the distribution and volume of comments received in different areas of the Borough. Further analysis of the Commonplace responses will be undertaken over the coming months to determine how these might be addressed through the programme lines proposed in Table 3.4, subject to an assessment of priorities.



The three-year programme will be prioritised using a bespoke system designed to ensure the best alignment against strategic and local objectives. A long list of projects was also curated through the workshops, costed and packaged under indicative work streams based on the MTS outcomes. The long list of projects was then scored against a weighted combination of the MTS objectives, Healthy Streets indicators and Lewisham LIP objectives to help inform the three-year programme. The programme was validated against the borough context and challenges data mapping and Commonplace responses to further ensure compliance with MTS and alignment with other funding streams.

Derivation of the annual programme began with setting aside LIP funding for ongoing council programmes and committed schemes. Funding has been ring-fenced for the following programmes.

Crofton Park Corridor

During 2014/15, a feasibility study considered the transport issues along the B218 corridor, including Brockley Road, Stondon Park and Brockley Rise. Road safety and air quality were the key issues to be investigated, alongside public realm improvements which would support local places. The purpose of the study was to identify concept stage solutions which might be feasible and affordable, and to consult with the public at an early stage of development. Following an appraisal of the potential schemes, Crofton Park has been recommended as the highest priority scheme along the B218 corridor, largely on the basis of the road safety, air quality

and the relatively high footfall it experiences as a local shopping parade. The project is now moving towards the detailed design stage, following public consultation and dialogue with key stakeholders. The costs for the scheme have been reprofiled to reflect delivery timescales.

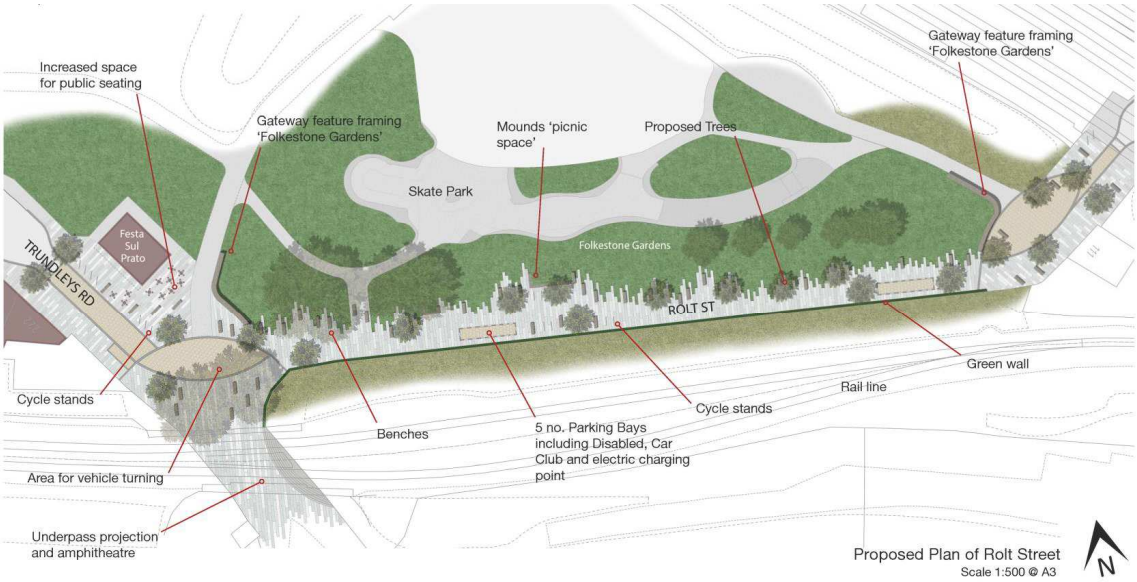
The main proposals that have been consulted on include narrowing the available road width and widening footways, providing raised table junctions at several locations along Brockley Road and on side junctions to reduce vehicle speeds and provide better pedestrian crossing facilities, planting new street trees and public realm improvements including formalising parking with inset bays. The concept sketch below provides a visualisation of potential improvements. This was produced for the purposes of the consultation on the concept design and may be subject to change.

Funding will comprise £350,000 for each of the first two years of the LIP period. During 2019/20, the funding will be used to commence construction of the scheme.

Deptford Parks Liveable Neighbourhood

As highlighted earlier in the document, this scheme will include new cycling and walking links, including the removal of local traffic, road closures, the creation of a world class north/south traffic-free walking and cycling facility, public realm improvements and healthy routes to schools. The interventions will transform streets, travel choices and the health of people, by connecting them with schools, parks, public transport, local businesses and high streets, as well as enabling new journeys beyond the neighbourhood. The project will mobilise and empower the local community, fostering collaboration at the neighbourhood level and empowering

people to have a say in the design of their streets and public spaces. LIP funding will contribute £50,000 during the 2nd year of the LIP period. The concept design below for Rolt Street constitutes a key part of the scheme, and was developed in partnership with the community, although this will be subject to further feasibility/design work and consultation.



A21 Healthy Street (The 'Lewisham Spine')

Lewisham is one of the most pro-cycling Boroughs in London, and has a track record of working collaboratively with TfL to deliver cycling infrastructure, including London's first Quietway and CS4 which is under development. The A21 is the central spine of the Borough. It links our main TLRN routes, rail and Tube services, and our two major town centres. It also links in with CS4 in the north (which will provide a route into central London), and Bromley to the south, providing just the kind of vital link between inner and outer London that would be required to achieve the ambitious targets set out in the MTS vision. It is included as a key aspiration within the Council's Cycling Strategy as a way of encouraging active travel, reducing congestion, and improving air quality.

The Council is now working in partnership with TfL on an Outcome Definition exercise, to determine opportunities and priorities along the corridor, and to inform a concept design that responds to the Council's Manifesto pledge to work with TfL to provide a new segregated cycle route connecting Downham to Deptford. The LIP3 programme makes an allowance in 2019/20 for a £20k contribution towards this Outcome Definition work, in recognition that the northern part of the route is on Lewisham highway.

Additional Funding Programmes

The remaining available LIP funding has been allocated through consideration of a list of projects curated through internal Council workshops, site visits, and through analysis of Commonplace suggestions. At this stage, the Commonplace suggestions have been used as a validation tool to ensure the programme is fulfilling public need. Consideration has been given to the MTS objectives, Healthy Streets indicators and Lewisham LIP objectives.

Schemes have been grouped together under the following programme lines, and will be prioritised on an annual basis.

Healthy Neighbourhoods

Through the Mayor's Transport Strategy and associated LIP guidance, there is a requirement for boroughs to demonstrate a clear strategy of how they intend to reduce traffic by an average of 10-15% across London. The draft Lewisham Transport Strategy and LIP sets out how this will be achieved, and acts as a holistic traffic reduction strategy for the borough. The Healthy Neighbourhoods programme is a key component within this strategy – it will adopt the principles of the Liveable Neighbourhoods schemes, which aim to improve air quality, reduce traffic and congestion and encourage active travel, and will apply them at a smaller-scale.

This will include using interventions such as point closures, modal filters (traditionally road closures allowing pedestrians and cyclists to pass while stopping motorised traffic from doing so) and banned turns, enforced by cameras. This will be complemented by a series of other measures such as contraflow cycling, improved crossing points, cycle hangars, electric vehicle charging points, parklets, street trees and benches.

The impact of these small interventions spread across a defined zone or area will create an impact that is greater than the sum of its individual parts, making Lewisham's diverse communities greener, healthier and more attractive places to live, work, play and do business. The intention of this programme is to utilise the responses to the LIP public consultations, alongside other evidence and officer knowledge, to identify areas where low cost but effective traffic reduction techniques might be trialled.

The programme will incorporate 'Healthy Schools' principles and provide measures to encourage more active travel. Schemes such as this will link, where possible, with the Public Health Department's new 'School Superzones', which will be piloted throughout the Borough during 2019. This new initiative involves a series of interventions in a 400m radius of the school to provide a wide range of benefits across health and wellbeing. Through the Healthy Neighbourhoods scheme, Lewisham will be piloting school-time road closures at selected schools to address

the school run issues around congestion and parking and encourage mode shift and assist traffic reduction.

Subject to an assessment of priorities, the Healthy Neighbourhoods programme could also assist in delivering schemes that form part of wider masterplan projects, such as the New Cross Road masterplan (see Appendix B).

A programme of two to three neighbourhoods a year is planned, with funding of £508k proposed for the first year of the programme, and a similar amount in the second year. The final year of the programme allows for inclusion of a more ambitious scheme. However, there is potential to supplement the programme with other funding sources such as from the Mayors Air Quality Fund and developer funding.

A map showing the neighbourhood areas is included in Appendix C, which has been derived taking into account a number of basic principles. These include:

- Areas to be of a reasonable size to allow analysis and treatment. The areas chosen are around 1 to 3 hectares.
- The boundaries to the areas should, where possible, have low permeability (such as railway lines, parks etc) or be “major” roads (Red Routes & other “A” roads etc. - where high volumes of traffic could be expected to occur).
- Where practicable known intrusive traffic routes (rat-runs) between “major” roads have been included in a single area to allow a full analysis of the issues and comprehensive proposals for alleviation interventions in a single scheme.

The order in which the neighbourhoods have been prioritised for treatment is data led and based on a number of criteria. Most of the criteria are related to the changes and benefits that could be expected when areas become less trafficked and more people are encouraged to use active travel for all or part of their journeys. A small element of the selection criteria relates to the acceptability, practicality and viability of introducing the types of intervention to significantly reduce/remove through traffic. The criteria used to help prioritise the neighbourhoods include:

- **personal injury collisions** – the delivery of a successful healthy neighbourhood has the potential to reduce collisions in line with the borough’s Vision Zero ambition. Neighbourhoods with a higher number of collisions are given a higher score;
- **levels of obesity in an area** - A successful healthy neighbourhood should encourage more active travel, thereby helping to reduce obesity levels. Higher scores are given to neighbourhoods with a higher level of obesity;
- **air quality levels** – A successful healthy neighbourhood should help to improve air quality levels within the neighbourhood. Neighbourhoods with the worst air quality are therefore given a higher score;
- **asthma levels in the community** – The prevalence of asthma has been linked to air quality issues, which should improve within healthy neighbourhood areas. Higher scores are therefore given to those neighbourhoods with higher asthma levels;

- **levels of deprivation** – people in deprived areas tend to suffer more from the negative effects of heavy traffic, but are less likely to contact the Council to raise attention to their concerns. Higher scores are therefore given to neighbourhoods with higher levels of deprivation.
- **School Travel Plan (STP) accreditation level** – one of the main aims of a STP is to encourage the use of sustainable travel for journeys to school. These schools are more likely to encourage sustainable travel and support the effectiveness of a Healthy Neighbourhood. Areas with high levels of STP accreditation are therefore given a higher score.
- **public transport accessibility (PTAL) and car/van availability** – a higher 'PTAL' should assist people to make the switch from private car use to more sustainable modes when a healthy neighbourhood is introduced. Similarly, where private vehicle availability is lower, more residents are likely to travel sustainably and benefit from the measures implemented.
- **LIP public consultation feedback** – feedback was received during two stages of consultation on the LIP, which was taken as an indication of support for change. Higher scores are given to higher levels of support.
- **pre-existing local community support and action** – in recent years a number of local groups/associations have been actively involved in looking at traffic problems in their areas and suggesting possible changes. This suggests that there is likely to be a reasonable level of local support for a Healthy Neighbourhood scheme and the types of measures that would be required to support it, therefore making the scheme more viable.

There is a desire to see different parts of the borough benefitting from the programme. Cells have therefore been separated into those inside and outside the extended ULEZ boundary (the south circular), with at least one neighbourhood from either side of the boundary to be implemented in each tranche. Other factors may also be taken into consideration when determining the priority for delivery, such as the availability of funding from other sources to progress a particular area. Areas will be re-prioritised at least every 2 years, using the latest available data, with an announcement made each January/February on the 2-3 Healthy Neighbourhoods to be delivered in the coming financial year.

The results of the above prioritisation exercise have provided us with four areas to be progressed over the first two years of the LIP programme: Lewisham and Lee Green, West Brockley, Bellingham and East Sydenham. It should be noted that delivery of all four areas may be dependent on the borough securing further funding through the Mayors Air Quality Fund.

Local Pedestrian Improvements

Key to this programme will be an £80,000 investment in resurfacing and public realm improvement works to the area outside of Lewisham Shopping Centre. With a potential to build on the scheme with more ambitious plans in future years.

Year 1 – resurfacing improvements to the footway area An interim scheme to address the immediate issues around broken and missing paving in the area but could also tie in to more long term improvements outlined below.

Future years – Public realm design for the area including pedestrian improvements on Albion way junction. A scheme that could build on the interim measure outlined above that also addresses the road safety concerns surrounding the junction of Albion Way. Any scheme delivered would require a significant budget derived from multiple sources and would need to be designed in such a way that it could be adapted to any longer term plans that come forward for the town centre.

The remaining funding in the first year will provide a detailed improvement strategy comprising small-scale, localised schemes to provide a better walking environment. This in turn will encourage active travel, reduce congestion and improve air quality. Schemes will be guided by local need, and Commonplace feedback will be used to identify potential initiatives. A key aspect of this programme will be focussing on improving accessibility around rail stations, ensuring a comprehensive network providing dropped kerbs and tactile paving, ensuring links to public transport are fully inclusive and accessible to all and delivering other small-scale interventions that help to achieve healthy streets such as the street trees and benches.

This funding will also be used towards match funding for developer contributions, in particular in key growth areas to the north of the Borough. Improvements to pedestrian conditions at Cold Blow Lane have been earmarked under this programme, and will provide a high-quality link in an area that currently suffers from east-west pedestrian severance. The need for this scheme has been reinforced through public comments on Commonplace.

These LIP funded projects will be supported by the Council's maintenance and capital works programmes to ensure that footways are maintained in a safe condition.

Local Cycling Improvements

Three key cycling improvement projects have been identified to be delivered as part of the annual programme, including 2019/20. This will be supported by the delivery of other actions from the Council's Cycling Strategy in order to help people make the transition to cycling, in turn reducing congestion and improving air quality.[97]:

[97] www.lewisham.gov.uk/cycling (then click on the 'Strategies and Plans' link)

Contraflow cycle routes

A three-year programme of introducing contraflow cycling to the existing one-way systems in the borough, where feasible. Through analysis of TfL Cityplanner and Commonplace data a priority list will be developed and individual projects designed and delivered.

Cycle parking

Areas will be identified to install secure bike hangers across the borough for use by residents who may not have access to off-street parking at home. It is likely that in some areas of the borough on-street parking may have to be taken out to accommodate the new and secure cycle parking. This will only be done in consultation with the local community. Furthermore, a review of cycle parking in town centres will be carried out to ensure sufficient and appropriate provision.

Improved cycle routes

Finally, important walking and cycling links and connections such as bridges across railways and paths through greenspaces will be assessed for potential improvements. This will complement TfL's Cycle Quietway and Cycle Superhighway programme. Officers have commenced discussions with TfL on the next phase of Quietway routes and priorities, but awaits confirmation of future funding, which it is assumed will be provided outside of LIP3 for the priority routes identified.

The Borough will also be seeking to work with at least one dockless bike sharing scheme provider to see dockless bikes introduced into the Borough. This will help further drive uptake in cycling and make it more accessible.

Road Danger Reduction

The Borough has adopted a new approach to safety on the roads as recognised through the MTS's Vision Zero and Healthy Streets ambitions. This involves a shift in emphasis from 'Road Safety' to 'Road Danger Reduction', Reducing the dominance, speed and overall numbers of the most dangerous vehicles is central to the Healthy Streets Approach and to achieving Vision Zero, and will reduce Londoners' exposure to road danger. By making our streets safer and feel safer, we will create streets where people want to walk, cycle and use public transport.

The 2019/20 Road Danger Reduction programme will consist of a series of interventions across the borough supporting the boroughwide 20mph speed limit, which was implemented in 2016. Interventions will mainly consist of traffic calming measures to encourage compliance of the new and lower speed limit alongside an exploration into enforcement tools available to the council.

In parallel to this a review of the emergency services principal road network in the borough will be undertaken with the various blue light services to ensure that the traffic calming measures installed and planned are suitable for their requirements.

The borough will also review any collision hotspots on the Lewisham road network, as highlighted through an annual review of collision data.

This will be supported by the phased implementation of 20mph on TLRN, as outlined in the TfL's Vision Zero Action Plan.

Air Quality and Noise

The Council has developed an Air Quality Action Plan in order to tackle poor air quality and reduce the impact on health. Air quality is a significant priority in the emerging MTS, which supports measures to improve air quality, particularly the development of electric vehicle charging infrastructure.

The recently published low emission vehicle strategy 2018-22 sets out an ambitious vision to ensure that all of Lewisham's residents, businesses and visitors are within 500m of a charging point by 2020. An action plan to deliver a significant increase to the on-street charging assets in the borough is contained within the strategy.

In 2019/20 LIP funding will be used to match fund GULCS funding to implement the Vision in Lewisham's Low Emission Vehicle Charging Strategy of delivering an extra 41 charging locations to achieve a 500m distance between charging locations.

It will also be used to support the implementation of the recommendations identified through the Mayor's Schools Air Quality Audits, where these are not covered by the Healthy Neighbourhoods programme.

Funding may also be used to support the Council's air quality and noise monitoring programme, and to support future DEFRA and/or Mayor's Air Quality Fund bids for other projects, as these arise.

Safe and Active Travel

The supporting measures or active travel programme is an important part of the Lewisham LIP3. The three-year programme has been set at £327,000 per year and will deliver crucial and popular public services such as cycle training, road danger reduction programmes and school travel planning. This programme will be data led and will use the information highlighted in the collision analysis undertaken in Appendix D. The programme will continue to monitor trends and data in future reviews. In response to the ambition of the MTS and this LIP3 the programme will continue to work in partnership with the council's public health and environmental services programmes.

During 2019/20 the following funding breakdown is envisaged:

- £123k will be spent on child and adult cycle training. Level 1 and 2 training will be offered to all schools in the borough for their year 5 or 6 pupils. Adult cycle lessons will be offered to encourage safer cycling and will aim to make cycling part of everyday life, creating healthier lifestyles, and reducing the reliance on the private car.

- £100k will be used to continue to improve the School Travel Planning programme developed over recent years. This includes working with whole school communities to identify ways of encouraging walking and cycling to school and address real or perceived barriers to using sustainable modes of transport. Projects to raise awareness and promotion of healthy lifestyle, active travel options, walking and cycling initiatives will be developed using tried and tested behaviour change methods.

- £39k will be used for an Active and Sustainable Travel programme of initiatives, events and publicity to raise awareness and use of more sustainable modes of travel.

- £65k will deliver the training and publicity programme. For 2019/20 this work will continue to be data led and will focus on a road danger reduction programme of work. The programme will continue to develop to support the MTS Vision Zero target.

Public Transport Supporting Interventions

In recognition of the role the local highway has in improving the public transport experience, a LIP funded public transport improvement programme is proposed to start in 2019/20. This programme will be utilised to complement the completion of the bus stop accessibility programme which is planned to be completed in 2018/19.

This programme will look at accessibility to rail stations as well as bus stops, working in partnership with TfL and Network Rail. It will also include working with TfL to see an extension to the 225 bus route delivered.

This will be complemented by the more strategic public transport schemes outlined in the TfL Business Plan, and Longer-Term strategy sections. These longer term aspirations include the delivery of the Bakerloo Line Extension, improved station interchanges at Lewisham and Brockley, metroisation, creating step-free access to all rail stations within the Borough, improving orbital public transport connections, and increasing bus provision to lower PTAL areas. These will ensure that travel by public transport is encouraged and facilitated, in turn supporting the delivery of new homes and jobs across the Borough.

Small Scale Schemes

The Council receives many requests for minor traffic management measures from the public, including those raised during the Commonplace consultation. These are assessed and prioritised based on their cost against factors such as safety, traffic speed and volume, intrusive parking, community use and cost. Small scale schemes are highly valued by local communities, but are often too low in cost, or do not have high enough priority, to be included in the LIP programme in their own right. The programme is therefore funded by various sources, including a LIP contribution, and the Council's own revenue budgets.

Demand for traffic schemes has increased dramatically as a result of heightened concerns about air quality, expectations linked to new 20mph limits, and emerging MTS priorities, such as "Healthy Streets", "Vision Zero" (new target for zero KSIs) and removal of traffic from residential streets. Although some of these will be picked up as part of the Healthy Neighbourhoods programme as individual neighbourhoods are prioritised, there is still a need for a relatively small budget to address priority issues in other areas of the borough.

Completion of previous years' schemes

Many schemes are carried out each year that require the Council to commission services where it has little or no control over their programming and invoicing. This includes the provision of electrical connections, disconnections and supplies from the statutory companies. It is recommended that £65k be set aside from this annually. This funding is intended to allow a planned approach to settling these 'late' accounts whilst not putting pressure on existing schemes in the programme. Any funding not required for this will be reallocated into existing or new schemes.

Complementary projects

Further to the programmes identified above, schemes at Creekside and Bell Green will be brought forward during the period of this LIP3 and are funded through other sources. Although funded separately, these will contribute towards the achievement of the MTS and LIP3 objectives. The Creekside scheme will be fully funded through S106 contributions, and will form a major package of works to improve footway, carriageway and public realm spaces whilst implementing a CPZ. At Bell Green, as part of the proposed Quietway route through the area, pedestrian crossings will be improved around the Bell Green / Sydenham Road gyratory will be improved. This is to be fully funded through S106 and Quietway funding.

Delivering new homes and jobs

Although there is no dedicated programme line for this, it is anticipated that the LIP3 delivery plan in its entirety will help to support the growth that is envisaged across the borough over the next 20 years, as outlined in Chapter 2. The Council will also

be undertaking a transport assessment to help inform the development of the Local Plan. This will help to understand what strategic transport infrastructure (including public transport improvements) is required to support development in the borough.

S106 funding will be key to helping supplement the LIP and will enable the borough to deliver further schemes that align with MTS objectives, such as Creekside, Cold Blow Lane and Convoys Wharf, to name a few. Other schemes will also emerge from the Council's masterplanning exercises, such as those for New Cross and Catford. Over the coming months further detail will be added to the delivery plan to set out how the Council intends to make use of the s106 contributions that have been secured to date.

Annual programme of schemes and initiatives[98]

The annual programme of schemes for 2019/20 will be completed and submitted to TfL via the Borough Portal. The programme of schemes will be updated annually.

Risks to the delivery of the three-year programme[99]

Table 3.5 below shows the principal risks associated with delivery of the LIP together with possible mitigation actions for the three-year programme. The risk register summarises the strategic risks identified that could impact on the three-year programme of schemes/initiatives.

[98] Requirement R20: Boroughs are required to provide a detailed and costed programme of schemes and initiatives for the first year of the plan, with the programme to be updated in subsequent years. Boroughs should submit their Programme of Investment using Proforma A (as shown at Part three – Appendix F). Proformas will need to be uploaded to the Borough Portal.

[99] Requirement R19: Boroughs are required to include a concise section on risk assessment and mitigation in preparing and considering options for their Delivery Plan.

Table 3.5: LIP Risk Assessment for three-year programme 2019/20-2021/22

Risk	Likelihood			Potential mitigation measures	Impact if not mitigated
	H	M	L		
Financial					
Reduction in scheme funding due to budget restrictions.		x		Consider implementing lower cost options if permissible.	LIP objectives not met or non-progression of project.
Increase in unforeseen project costs due to environmental factors.		x		Undertake judicious project management to ensure funding is used efficiently and justifiably.	LIP objectives not met or non-progression of project.
Statutory/legal					
Lewisham is required to implement the LIP under s151 of the GLA Act without sufficient external funding support.			x	Explore possibility for legal challenge, if possible jointly with other affected bodies.	Other Lewisham services may be impacted.
Third Party					
Stakeholders and/or third party support decreased or withdrawn.		x		Keep public and Members, and other partners informed through clear communication of planned projects and emerging issues.	LIP objectives not met or non-progression of project.

Public/political					
Change in policy or political direction.		x	x	Ensure that Members are frequently engaged in a variety of schemes through various different policy areas.	Non-progression of project.
Individual projects are not supported by Members.			x	Ensure that Members are involved at the early stage of project development, so that fundamental issues can be addressed and incorporated into the design.	Non-progression of project.
Individual projects are not supported by the public at the consultation stage.		x		Undertake appropriate consultation at an early stage to ensure public support. Redesign project to resolve objections.	Non-progression of project.
Programme & delivery					
Insufficient staff resources to develop designs	x			Recruit temporary/fixed term staff or use consultants.	Non-progression or late delivery of project.
Projects undertaken are not successful.		x		Schemes are to be carefully monitored and reviewed to identify non-delivered outputs early within the work programme.	LIP objectives not met.
Delays to progress of work	x			Consult with statutory undertakers as early as possible. Reprogram or transfer budget to support the next highest priority scheme.	LIP delivery programme extended or non-progression of projects.

Risk assessment for the annual programme[100]

Table 3.6 below shows the principal risks associated with delivery of the LIP together with possible mitigation actions for the annual programme. The risk register summarises the strategic risks identified that could impact on the annual programme of schemes / initiatives.

[100] Requirement R22: Boroughs are required to identify any projects that have significant potential of risk within the planned programme of works and identify any mitigation measures for these high-risk projects.

Table 3.6: LIP Risk Assessment for annual programme - 2019/20

Risk	Likelihood			Potential mitigation measures	Impact if not mitigated
	H	M	L		
Financial					
Reduction in 19/20 LIP funding			x	Work with TfL to ensure full LIP funding is achieved	Project scope reduced and limited benefits realised
Unforeseen increase in 19/20 programme cost			x	Maintain flexible budgets across 19/20 programmes and ensure value engineering	Budget redistribution across programme could limit effectiveness of those programme with reductions.
GULCS match funding not secured		x		Maintain ambitious and realistic EV programme and action plan	Reduction in on street EV points delivered, reduced EV take up and reduction in wider AQ benefits.
Statutory / Legal					
Draft LIP3 not supported by TfL			x	Continued engagement with TfL LIP and borough sponsorship team	Delay in LIP3 approval could delay 19/20 programme and reduce benefits
Legal challenge made on LIP3			x	Continued engaging consultation with public and transparency on decision making	Delay in LIP3 approval could delay 19/20 programme and reduce benefits
Third Party					
Supply chain inability to deliver			x	Ensure good supply chain management and access to multiple service providers	Inability to spend budget and reduction in provision of services

Development market slows			x	Maintain good linkages to Local Plan and good relationship with developers.	Reduction in planning gain funding could place a higher reliance on LIP funding.
Public / Political					
Draft LIP3 not supported by LBL Cabinet			x	Early engagement with lead member and ensure compliance of LIP with wider council objectives.	19/20 LIP funding delayed or withheld resulting in project delay
19/20 projects not supported by local community and ward members			x	Early engagement with local community groups and members	Project delay and late delivery of benefits
Programme & Delivery					
19/20 Programme slippage			x	Ensure good project management procedures in place and efficient access to technical support	Delay to achieving LIP objectives and outcomes
Access to road network [for construction]			x	Early engagement with LBL permitting team	Delay to achieving LIP objectives and outcomes
Project specific					
New Local Traffic Management and Reduction programme		x		Early and comprehensive engagement will mitigate any risk of a lack of local support for local road closure projects as part of this programme.	Projects cancelled due to lack of support and ability to meet ambitious traffic reduction and vision zero targets reduced
Lewisham Town Centre pedestrian improvements		x		Early engagement with market traders to ensure works can be programmed with minimum disruption.	Lack of support for project resulting in delay in continued trip injuries and claims.

4. Monitoring the delivery of the outcomes of the Mayor's Transport Strategy

Overarching mode-share aim and outcome Indicators[101]

Table 3.7 outlines the targets for Lewisham against the MTS overarching mode-share aim and outcome indicators.

The Borough's progress against the outcome targets and mode-share aim will be measured through strategic data collected by TfL on behalf of the Boroughs.

Delivery indicators [102]

The delivery indicators are set by TfL and relate to each of the nine MTS Outcomes. These provide a reference for the delivery of the Mayor's Transport Strategy at a local level. The borough will monitor and record the delivery indicators and report to TfL once a year in June using Proforma C.

[101] Requirement R23: Boroughs are required to set targets against the overarching mode share aim and the nine outcomes using their respective outcome indicators.

[102] Requirement R24: Boroughs are required to collect this information and submit it to TfL using Proforma C on at least an annual basis.

Table 3.7: Borough outcome indicator targets

Objective	Metric	Borough target	Target year	Additional commentary
Overarching mode share aim – changing the transport mix				
Londoners' trips to be on foot, by cycle or by public transport	Active, efficient and sustainable (walking, cycling and public transport) mode share (by borough resident) based on average daily trips. Base period 2013/14 - 2015/16.	72% 81%	2021 2041	Lewisham will achieve this through its first LIP outcome; to make *travel by sustainable modes the most pleasant, reliable and attractive option*. It will aim to create a step-change in public transport and active travel provision, particularly to the south east through pursuing longer-term initiatives as outlined in Table 3.3.

Objective	Metric	Borough target	Target year	Additional commentary
Healthy Streets and healthy people				
Outcome 1: London's streets will be healthy and more Londoners will travel actively				
Londoners to do at least the 20 minutes of active travel they need to stay healthy each day	Proportion of London residents doing at least 2x10 minutes of active travel a day (or a single block of 20 minutes or more).	44% 70%	2021 2041	70% of Lewisham residents will fulfil this objective by 2041. *This will be achieved through delivering the Borough LIP outcomes;* *Improved network of cycling and walking routes with links to town centres and improved east-west connections* *Reduced ownership and use of private motor vehicles* *Improved safety and security will increase social inclusion and encourage walking and cycling* *Eliminate fatal and serious collisions on Lewisham's roads* *Walking, cycling and public transport will be prioritised in new developments as the best options*

Objective	Metric	Borough target	Target year	Additional commentary
Londoners have access to a safe and pleasant cycle network	Proportion of Londoners living within 400m of the London-wide strategic cycle network.	19% 71%	2021 2041	71% of Lewisham's residents will be within 400m of the London-wide strategic cycle network by 2041. This aligns with the LIP outcome; *Improved network of cycling and walking routes with links to town centres and improved east-west connections*. Lewisham will assess the existing provision using GIS analysis and target areas that are under-provided.
Outcome 2: London's streets will be safe and secure				
Deaths and serious injuries from all road collisions to be eliminated from our streets	Deaths and serious injuries (KSIs) from road collisions, base year 2005/09 (for 2022 target)	48 44	2021 2022	Lewisham's roads have seen a 46% decrease in KSIs between the 2005/09 base year and 2016. This rate of decrease will need to be maintained to achieve the Mayor's Vision Zero, and this will be supported by the Brough LIP objective; *Lewisham's streets will be safe, secure and accessible to all.*
	Deaths and serious injuries (KSIs) from road collisions base year 2010/14 (for 2030 target).	26 0	2030 2041	

Objective	Metric	Borough target	Target year	Additional commentary
Outcome 3: London's streets will be used more efficiently and have less traffic on them				
Reduce the volume of traffic in London.	Vehicle kilometres in given year. Base year 2015. Reduce overall traffic levels by 10-15 per cent.	747 598-635	2021 2041	The Borough targets are recorded in annual vehicle kilometres (millions). The Council will aim for the higher target of a 15% reduction, aided by the three-year delivery plan and its longer-term ambitions to achieve a step-change in public transport provision for the south-east of the Borough.
Reduce the number of freight trips in the central London morning peak.	10 per cent reduction in number of freight vehicles crossing into central London in the morning peak period (07:00am - 10:00am) by 2026.	N/A	N/A	N/A as this target relates only to central London boroughs.
Reduce car ownership in London.	Total cars owned and car ownership per household, borough residents. Quarter of a million fewer cars owned in London. Base period 2013/14 - 2015/16.	75,100 67,800	2021 2041	This aligns with the Lewisham LIP outcome of; *reduced ownership and use of private motor vehicles*.

Objective	Metric	Borough target	Target year	Additional commentary
Outcome 4: London's streets will be clean and green				
Reduced CO2 emissions.	CO2 emissions (in tonnes) from road transport within the borough. Base year 2015/16.	132,000 34,800	2021 2041	Lewisham's third LIP objective aligns with this MTS outcome; *Lewisham's streets will be healthy, clean and green with less motor traffic*. Road traffic reduction measures, and increased provision for electric vehicles will contribute towards the Borough achieving these targets. The expansion of the ULEZ to the South Circular Road will significantly reduce Lewisham's road traffic emissions. Longer-term, the Council aspires towards implementing stricter regulations and a ULEZ encompassing the entire Borough.
Reduced NOx emissions.	NOX emissions (in tonnes) from road transport within the borough. Base year 2013.	200 30	2021 2041	
Reduced particulate emissions.	PM10 emissions (in tonnes) from road transport within borough. Base year 2013.	44 24	2021 2041	
	PM2.5 emissions (in tonnes) from road transport within borough. Base year 2013.	21 12	2021 2041	

Objective	Metric	Borough target	Target year	Additional commentary
A good public transport experience				
Outcome 5: The public transport network will meet the needs of a growing London				
More trips by public transport - 14-15 million trips made by public transport every day by 2041.	Trips per day by trip origin. Reported as 3yr moving average. Base year 2013/14 - 2015/16.	255 331	2021 2041	To achieve this outcome target, the Council will work with TfL and National Rail to increase capacity and frequencies on Lewisham's rail, DLR and Overground networks. The long-term goal of achieving Metroisation in the Borough will increase the appeal and patronage of the rail travel through more regular trains on a simplified network. The Council also aims to improve bus links to the south-east of the Borough in particular, aiming to provide a viable alternative to car travel and incite a modal shift. The first LIP objective aligns with achieving this target; *Travel by sustainable modes will be the most pleasant, reliable and attractive option for those travelling to, from and within Lewisham.*

Objective	Metric	Borough target	Target year	Additional commentary
Outcome 6: Public transport will be safe, affordable and accessible to all				
Everyone will be able to travel spontaneously and independently.	Reduce the difference between total public transport network journey time and total step-free public transport network	3 minute difference (-15%)	2041	Lewisham aims to have a street network that is *safe, secure and accessible to all.* This outcome target will be achieved via collaboration with Network Rail to increase the number of step-free stations in the Borough, as currently only 14 of the 21 stations have step-free access. The Council will also ensure complementary works are carried out to provide a comprehensive accessible network surrounds the stations, as without this, standalone step-free stations do not bring much benefit.
Outcome 7: Journeys by public transport will be pleasant, fast and reliable				
Bus journeys will be quick and reliable, an attractive alternative to the car	Annualised average bus speeds, base year 2015/16	9.3-9.6 mph 9.7-10.6 mph	2021 2041	The Council aims to reduce traffic speeds overall in the Borough. However, by focusing efforts on improving journey time reliability, reducing dwell times, and identifying opportunities to optimise bus movements, this target will be achieved by reducing time spend stationary.

Objective	Metric	Borough target	Target year	Additional commentary
New homes and jobs				
Outcome 8: Active, efficient and sustainable travel will be the best options in new developments **Outcome 9: Transport investment will unlock the delivery of new homes and jobs**				
				Lewisham's fourth LIP objective aligns with these MTS outcomes; *Lewisham's transport network will support new development whilst providing for existing demand.* Sustainable modes will be prioritised in new development, and the Council has identified a number of longer-term schemes (see Table 3.3) that will support growth in the Borough by providing a step-change in public transport and active travel provision.

5. Glossary

AQAP	Air Quality Action Plan	A document outlining actions to improve air quality.
AQMA	Air Quality Management Area	Areas where national air quality objectives are not being achieved.
BLE	Bakerloo Line Extension	Proposed extension of the Bakerloo Line beyond its current termini at Elephant & Castle, to serve New Cross Gate and Lewisham.
CS4	Cycle Superhighway 4	A committed and funded continuous segregated cycle route between Tower Bridge and Greenwich.
DEFRA	Department for Environment, Food & Rural Affairs	The government department responsible for environmental protection, food production and standards, agriculture, fisheries and rural communities.
DLR	Docklands Light Railway	Automated light rail metro system serving East London.
EV	Electric Vehicle	A vehicle operated by a plug-in electric motor.
GLA	Greater London Authority	The regional government of Greater London, headed by the Mayor of London.
GULCS	Go Ultra Low City Scheme	A programme by the Office for Low Emission Vehicles within the Department for Transport. It aims to provide funding to local authorities in the UK to encourages switching to a electric car use.
KSI	Killed or Seriously Injured	Collisions involving a casualty that has been killed or seriously injured.
LEBZ	Low Emission Bus Zone	Zones within which only buses that meet the toughest emission standards are permitted to run.
LIP	Local Implementation Plan	Each London borough is required to develop a LIP to set out how the borough will deliver the Mayor's Transport Strategy (MTS) at local level.
LP	Local Plan	A planning document that sets out plans and policies for how new development will take place within the Borough.
LSI	Lewisham Station Interchange	Proposals for enhancements to capacity and station quality of Lewisham Station to create a high-quality interchange between National Rail, DLR, the future BLE, buses, taxis, walking and cycling.
MELs	Mixed Use Employment Locations	Areas of older and poorer quality industrial uses at low densities that have been designated for redevelopment for a mix of uses including residential and a significant element of employment space.
MTS	Mayor's Transport Strategy	A document that sets out the Mayor of London’s policies and proposals to reshape transport in London up to 2041.
OA	Opportunity Area	Areas identified within the London Plan that have significant capacity for large scale development.

PTAL	Public Transport Accessibility Level	A measure from 0 (worst) to 6b (best) of connectivity to the public transport network in London, combines information about how close public transport services are to a site and how frequent these services are.
P2W	Powered Two-Wheeler	A term covering all two-wheeled motor vehicles, such as mopeds, scooters and motorcycles.
SCN	Strategic Cycle Network	A network of high-quality Cycle Superhighways and Quietways to be delivered with TfL as part of the MTS.
TfL	Transport for London	A GLA body responsible for the transport system covering Greater London.
TLRN	Transport for London Road Network	A network or roads for which TfL are responsible for the maintenance, management and operation.
ULEZ	Ultra Low Emission Zone	A zone within Central London which requires vehicles to meet a minimum set of exhaust emission standards or pay a daily charge to travel within the area.

Appendix A

Statutory Consultee List (see separate file)

Appendix B

New Cross Road Masterplan Extract (see separate file)

Appendix C

Healthy Neighbourhoods Study Cells (see separate file)

Appendix D

Casualty Analysis (see separate file)