

# Outer Orbital Area Study Evidence Base Report

Version 3.0  
6<sup>th</sup> May 2021

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# Introduction

# Background

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The Outer Orbital Area is one of the most diverse and exciting parts of the South East. This area serves some of the largest and most dynamic conurbations in the South East. It also boasts one of the most diverse landscapes in Southern England, which is protected by two national park authorities.

## A corridor and coastline of contrasts

This Outer Orbital area is, socially, economically, and environmentally diverse.

This area has some of the highest areas of deprivation in the country, and areas of very high economic productivity and prosperity. It has some of the country's most iconic natural and historic environments. It is the home of some of the UK's most iconic cities, which play a major role in the international economy.

All these strengths makes planning a challenge. How do we effectively incorporate such a wide range of interests, needs, and actors? How do we navigate the complex interdependencies and constraints which each of these interests place upon the development of the corridor?

Despite these challenges, it is this diversity which makes the corridor such an appealing place to live and work, something which stakeholders, and policy documents alike, make clear is of great value for those who live there.

## A route to post COVID-19 recovery

At the time of writing, the Outer Orbital area, along with the rest of England, was in lockdown in response to the COVID-19 pandemic. . This has had a dramatic impact on the region's development and will continue to have a marked impact upon the region over the coming years. The economic consequences will leave a significant legacy on the area.

Some already underlying trends (such as a shift to home working) appear to have accelerated markedly, while others (such an increased use of cars against a backdrop of levelling out car use in recent years) have seen notable reversals.

Whether these trends continue in the anticipated direction or revert back to pre-pandemic norms as the impact of COVID-19 subsides, is challenging to predict what will happen next.

There have been some “upsides” from the experience of 2020. For example. the region has attracted people to visit and take “staycations” in 2020. The COVID-19 pandemic has therefore underlined the importance of the natural landscape and re-emphasises the importance of protecting and enhancing the natural and historic environment.

Looking ahead into 2021 – it is clear that the economic impacts of the pandemic will be significant, and dramatic. They may force policy makers to look again at commitments made prior to 2020 and reflect whether these are appropriate for a post COVID-19 economy.

However, major historical events such as the COVID-19 pandemic are, thankfully, rare, and when they occur, they can offer unprecedented opportunities for social transformation and progression.



# Structure of this Report

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This report provides a common understanding of the current and future context for Transport for the South East's (TfSE) Outer Orbital Area Study. As well as presenting the evidence base, this report summarises the key issues and opportunities in this area, describes a vision for the area, and sets objectives for the study. This study has four parts:

## **Part 1 summarises the current evidence base underpinning this area study.**

It presents research and analysis sourced from policy documents, publicly available data and maps, scheme promoters, and insights from stakeholders. It is presented in six parts:

- **Part 1a** summarises the national, regional, and local policies relevant to this study (more detail is provided in the Appendix).
- **Part 1b** describes demographic and economic trends.
- **Part 1c** describes social trends, including deprivation, accidents, and air quality.
- **Part 1d** describes environmental characteristics, including protected areas, heritage, flood risk, and landscape.
- **Part 1e** describes the area's road, railway, and international gateway networks.
- **Part 1f** presents analysis of the accessibility and connectivity of the public transport networks serving the area.
- **Part 1g** summarises our analysis of Travel To Work patterns in the area.

## **Part 2 summarises evidence that shows how the future of the area may evolve.**

It is presented in four parts:

- **Part 2a** summarises the demographic projections based on Local Plan development data provided by Local Planning Authorities.
- **Part 2b** describes the results of the South East Economic and Land Use Model (SEELUM) which estimates the impact of a "Preferred Scenario" of the future (developed by TfSE and its stakeholders in 2018/19) on socioeconomic and transport outcomes in the Outer Orbital area.
- **Part 2c** lists the key highways, railways, international gateway, and local transport schemes under development in the area. It does not comment on whether the balance of schemes by modes and geography is right – this will be considered later in the options phase of this project.
- **Part 2d** explores the impact of the COVID-19 pandemic on the South East's economy and transport demand.

## **Part 3 presents our analysis of the key issues affecting the Outer Orbital area.**

It is presented in two parts:

- **Part 3a** summarises some of the issues and opportunities we have identified that are relevant to the Outer Orbital area (focusing on three areas).
- **Part 3b** presents the results of our SWOC (Strengths, Weaknesses, Opportunities and Challenges).
- **Part 3c** summarises the Problem Statements identified by stakeholders that this Area Study will seek address.

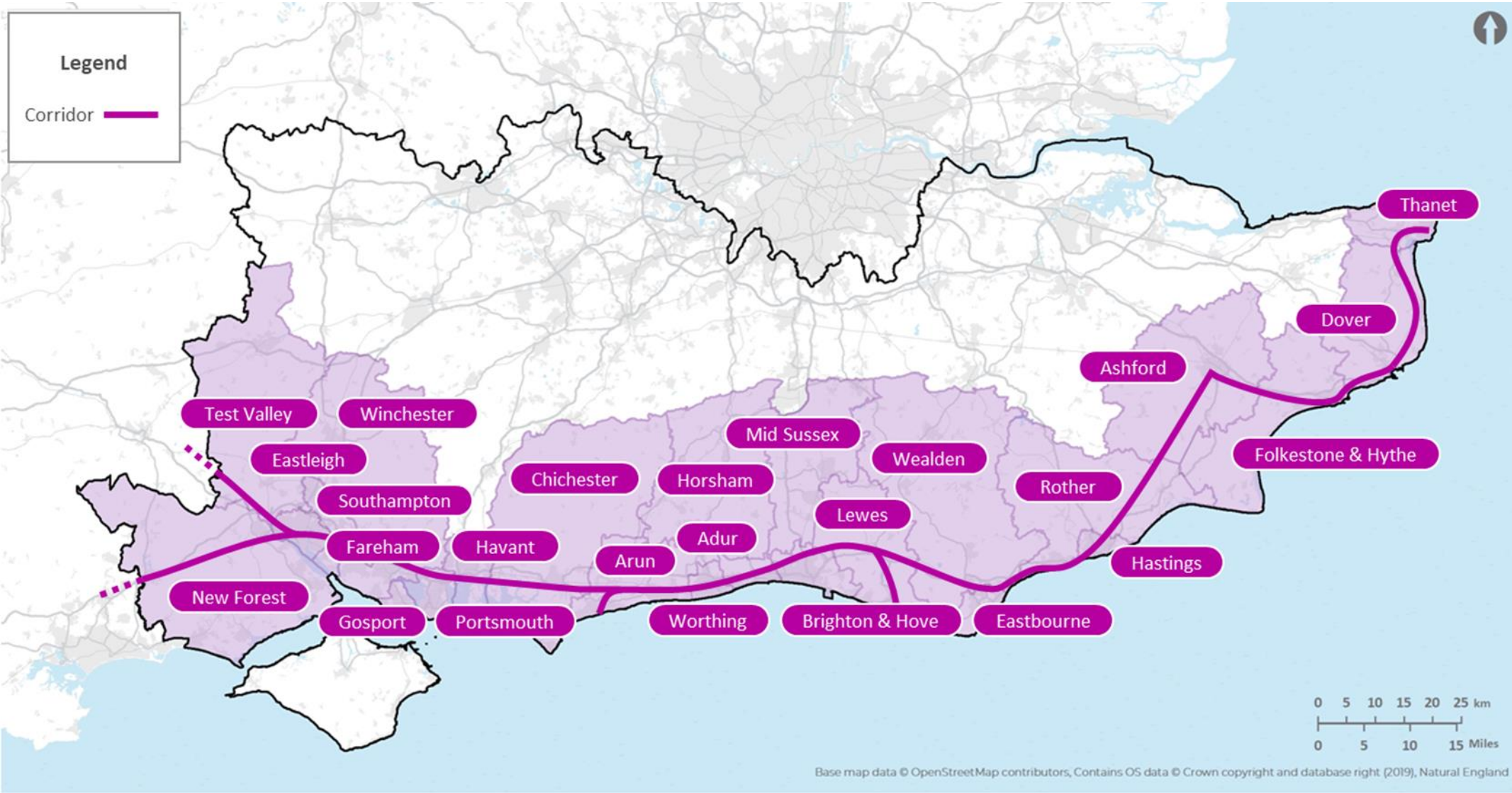
## **Part 4 sets a vision and objectives for the Outer Orbital area study.**

It is presented in three (short) parts:

- **Part 4a** describes the Vision Statement for the Outer Orbital area study.
- **Part 4b** lists the objectives of the Outer Orbital area study.
- **Part 4c** summarises the next steps of the Outer Orbital area study.

# Definition of the Outer Orbital Area

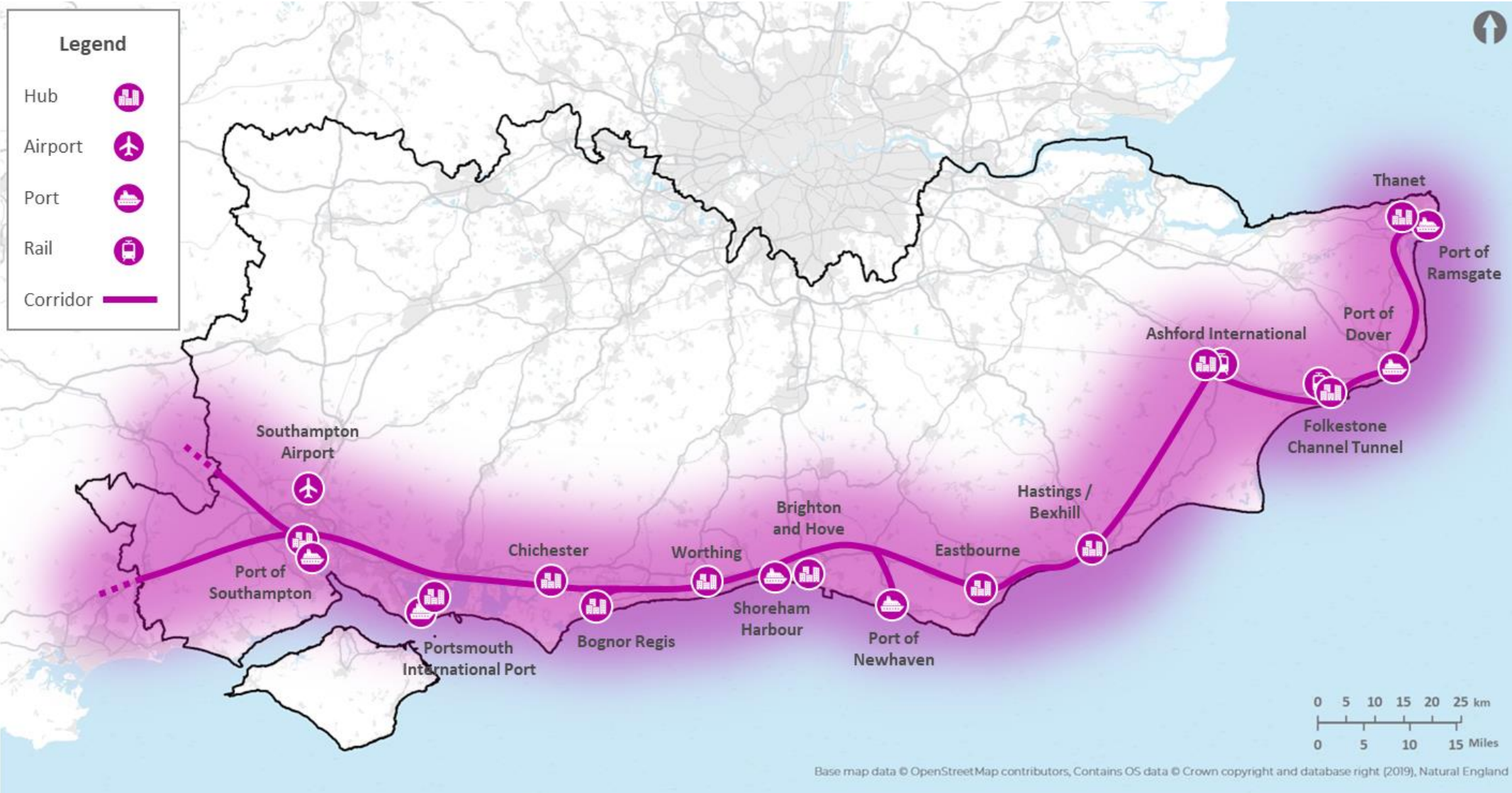
The Outer Orbital Area encompasses the strategic corridors that run along the South Coast from the New Forest in the west to Thanet in the East. The Local Planning Authorities in this area are shaded in light purple below. It is also served by four Local Enterprise Partnerships (running from west to east): Enterprise M3 LEP, Solent LEP, Coast to Capital LEP, and South East LEP.





# Major Economic Hubs and International Gateways

The largest Major Economic Hub in the Outer Orbital area is the South Hampshire conurbation, which includes Southampton, Portsmouth and the surrounding areas. The other prominent Major Economic hub is Brighton and Hove, which extends out to include Worthing. Other notable Economic Hubs along the corridor include Folkestone and Dover, Thanet, Hastings, Eastbourne, Chichester and Bognor Regis.





# Part 1

## Current Context



# Part 1a

## Policy Context

# National and International Policy Context

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National and international policies set a framework for the future of planning, climate change and digital technology. They aspire to deliver transport networks that work better for the people, the economy, and the environment. A complete list of the policies reviewed for this Outer Orbital area study is provided in tables in **Appendix A**. Key themes are discussed below:

## Climate Change/Decarbonisation Policies

The declaration of a UK climate emergency and associated legally binding Net Zero targets (by 2050) has led to an increased focus on the importance of decarbonisation across all sectors, but particularly in transport.

**Decarbonising Transport, Setting the Challenge**, sets out the broad framework within which this context sits, and will provide the foundation for future DfT policies in this area. It comes in the wake of several other critical national (e.g. the **Clean Growth Strategy**) and international (e.g. the **Paris Accords**) documents which are helping to set the overall direction for decarbonisation.

Clearer understanding of how these changes will be delivered is provided in documents such as **Gear Change**, which aims to deliver significant improvements to cycling infrastructure. We expect policy to continue evolving rapidly in this area. We also expect to see the wider adoption of “place based” policies (e.g. “15-minute neighbourhoods”) in response to the climate challenge.

## Planning Reform

Planning in England is governed at a national level by a **National Planning Policy Framework**, which promotes the importance of sustainable development and has several clear environmental themes. This planning framework guides the development of **Local Plans** and sets policy for the development of national international networks.

The government has indicated an ambition to reform the planning system and has laid out its plans in the White Paper: **Planning for the Future (2020)**. Planning reforms are expected to focus on simplifying the planning system and making better use of data and digitalisation to help make the planning system work better.

Recent planning policy has also emphasised the importance of building more new homes and making them more affordable and readily available to those living across the country. This would closely follow the policy outlined in the **Housing White Paper 2017** and delivered (in part) by the **Housing Infrastructure Fund**.

## Emerging Technology Policies

Technology will be critical for helping the transport network to continue developing over forthcoming years. Many believe recent trends in the adoption and penetration of emerging technologies have been accelerated by the advent of COVID-19.

Government policy is also evolving fast. In **Road to Growth** and the latest **Road Investment Strategy**, Highways England have emphasised the importance of using new technology across our highway network. The **Road to Zero** document also aims to encourage greater uptake of low-emissions vehicles, which it notes will require new technological development.

The DfT’s policy document **Future of Mobility: Urban Strategy** (released in 2019) focuses how artificial intelligence and electrification will shape the transport network, and deliver widespread benefits. It is anticipated that the **Future of Mobility: Rural Strategy**, which is expected to be released imminently, will likely cover similar themes for rural contexts.



# Regional and Local Policy Context

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Regional and local policies recognise the strength of the South East's natural assets and understand the importance of balancing future growth with social and environmental needs. The recently adopted Transport Strategy for the South East provides a framework for the implementation of national and regional priorities at a local level.

## Economic Strengths

The region's economic strengths are a key theme which run through several documents, for example, the **Economic Connectivity Review** showed that the area had the highest economic productivity outside London.

The importance of international gateways is noted in several policy documents, for example, the Highways England **Route Strategies**, and the **several Local Transport Plans** in the area.

The region's proximity to London is also a key driver of economic growth. However, the area's reliance on London is seen as a risk in documents such as the **London South East Market** network rail study and the **West Sussex Connectivity Modular Strategic Study**.

Many stakeholders in the South East wish to see its own major economic hubs, which include some of the largest conurbations in England, establish themselves as self-contained, high-performing, cities. This can be supported by improving connectivity within and between these conurbations to enable them to function (i.e. agglomerate) cohesively and efficiently.

## Planning for People and Places

At a local level, the importance of places and placemaking is emphasised in several policy documents. While this is cited in all Local Transport Plans and many Local Plans in the area, it is a particular focus for the urban authorities in the Outer Orbital area.

This is a key theme of the recently developed **TfSE Transport Strategy for the South East**, which aims to shift transport planning away from "planning for vehicles" towards "planning for people" and "planning for places", and net-zero carbon emissions by 2050 at the latest.

**Planning for vehicles** acknowledges that some local highways schemes may be needed to support immediate housing needs and congestion hotspots in the Outer Orbital area.

However, the focus also needs to consider **planning for people** (as a means of considering all modes of transport, especially healthy and public transport) and **planning for places** (which required much better integrated special, transport, services, and other infrastructure planning at a regional and local level.

## Local Response to COVID-19

The COVID-19 pandemic has clearly caused a significant rise in uncertainty around local planning. Local budgets are coming under increased pressure, and behavioral changes mean that traditional planning approaches have rapidly become obsolete.

In several areas, Local Industrial Strategies have been delayed as a result of the pandemic, and increased levels of uncertainty.

Several Local Enterprise Partnerships have released COVID-19 statements on their websites, and the South East LEP has released a formal **COVID-19 Statement** document. It explains SELEPs overall approach to the crisis and outlines how the LEP plans to help the region bounce back quickly.

Overall, however, it must be recognised that many local planning documents may quickly become obsolete as a result of the COVID-19 pandemic and the consequent economic outfall.





## Part 1b

# Demographic and Economic Context

# Population

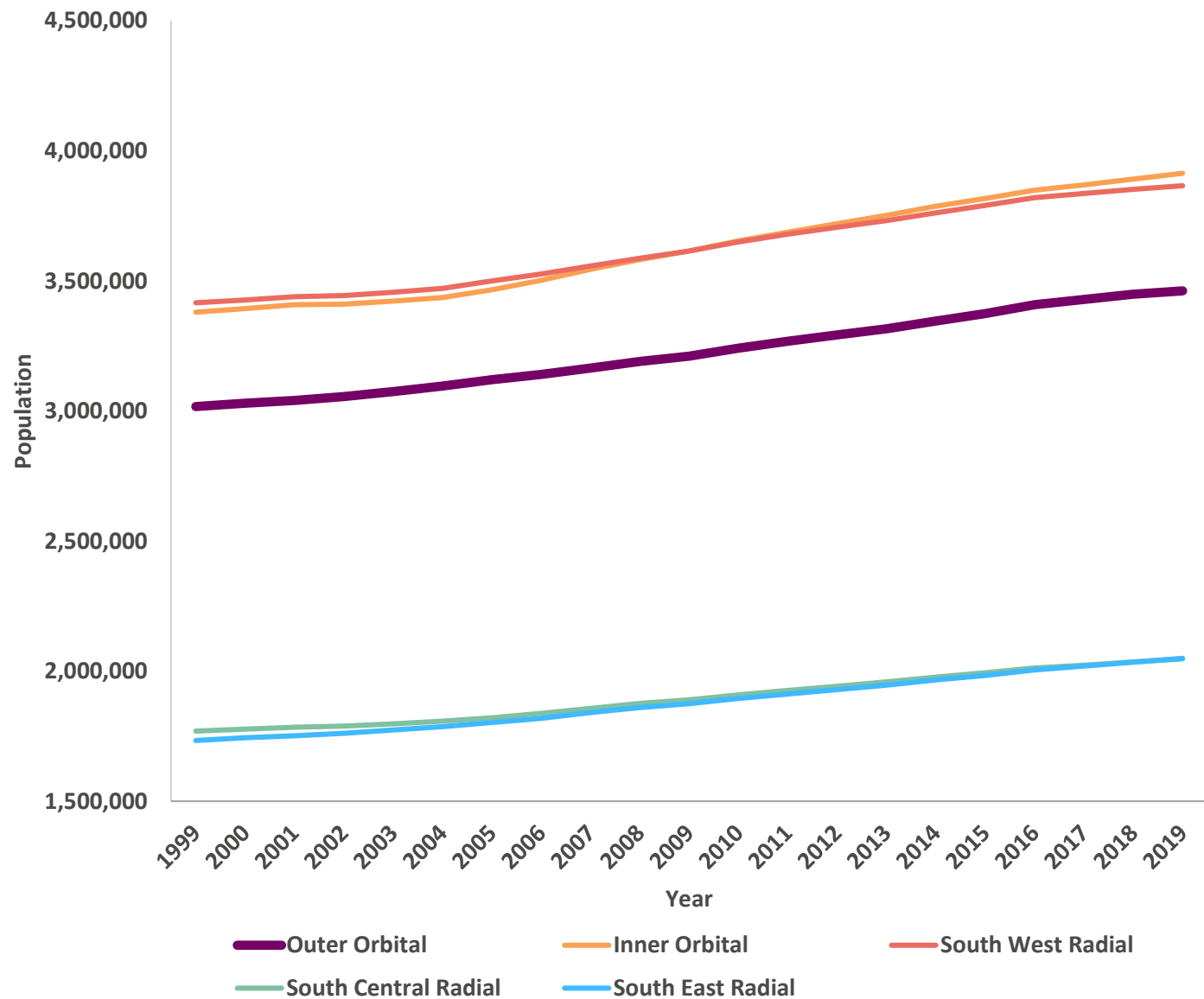
The population of the Outer Orbital area was just over 3.4 million in 2019. The population has grown at a similar rate to other parts of South East England.

Figure 1.1 shows population trends for each of the five areas. This shows the Outer Orbital Area experienced a population growth in line with other regions in the South East, experiencing a 7.8% growth in the past decade, when compared to the regional average of 8.0%. This growth is likely to continue in the future. The fastest growing areas along this corridor in the past decade include Ashford (12.4%), Wealden (10.1%) and Southampton (9.8%). In contrast, the slowest growing areas include New Forest (2.7%), Gosport (3.5%) and Hastings (3.8%).

The Outer Orbital Area has experienced the highest increase in elderly population in relation to other corridors, with the number of over 65s increasing by 21.3% since 2011, compared to 19.8% across the South East.

Modelling undertaken by Steer suggests the population in the Outer Orbital area will increase to around four million residents by 2050 (see page 75) – although this is based on pre-COVID-19 assumptions.

Figure 1.1: Population growth over time in the South East



Source: NOMIS Official Labour Market Statistics, Population Estimates (2019)

# Employment

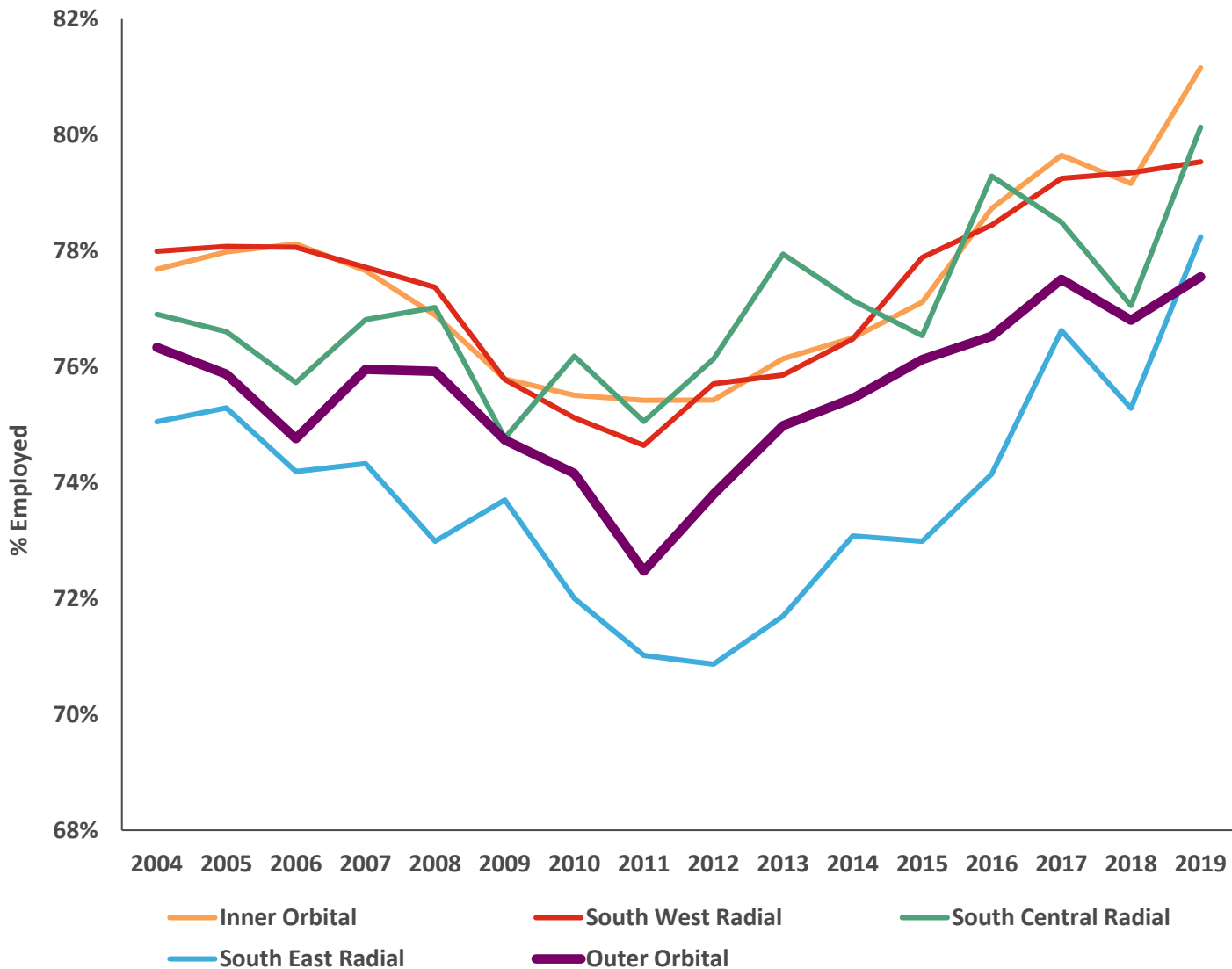
In 2019, 78% of the eligible workforce in the Outer Orbital area was employed. This is the lowest level of employment compared to other areas in the South East.

Figure 1.2 shows employment trends for each of the five areas. In 2017, 1,373,870 jobs were available in the Outer Orbital area. This area has underperformed with respect to this indicator for many years. Furthermore, its position relative to other parts of the South East appears to be worsening. That said, as is the case with all sub-regions the Outer Orbital area has consistently experienced an increase in employment since 2011. Sadly, it is expected that unemployment will rise sharply in 2020 and 2021 due to the economic fallout driven by the COVID-19 pandemic.

Within the Outer Orbital area, Adur district has experienced the highest increase in employment in the past decade, with 91% of all eligible employed in 2019. Other areas with high employment include Chichester (85%), Mid Sussex and New Forest (84%).

In contrast, the Portsmouth region has some of the lowest rates of employment along the corridor (just 71% of those eligible were employed in this area). Modelling (Page 75) suggests the number of jobs in this area will grow to 1.6 million by 2050.

Figure 1.2: Percentage of the eligible working population employed in the South East region



Source: NOMIS Official Labour Market Statistics, Employed Workforce (2019)

# Priority Industrial Sectors

In 2017, 12% of all jobs available in the Outer Orbital area were priority industrial sector jobs.

In 2018, TfSE identified industrial sectors that were deemed to be high value, high growth industries. Employment by each key sector in the Outer Orbital area is listed in **Table 1.1**.

The Outer Orbital area is particularly strong in the following priority industrial sectors:

- **Transportation**, which is closely tied to the area's role as the international gateway to Great Britain. Maritime transportation is of special importance, with the area being home to Southampton and Dover.
- **Financial, legal and information services**, particularly in larger cities with good links to London, such as Brighton and Hove.
- **Manufacturing**, including fabricated metal products, electrical products, machinery and vehicles.

Prominent business along this corridor include the Ordnance Survey in Southampton, Rolls Royce at Chichester, Roche and Ricardo in Worthing and American Express in Brighton.

A large proportion of the 130,000 planned jobs in the area by 2050 will be in priority industrial sectors.

**Table 1.1: Priority sector jobs in the Outer Orbital Area**

Priority industrial sector	Number of jobs	% of South East*
Transportation	39,490	44%
Manufacturing	32,125	63%
Public Administration and defence	26,250	62%
Computer Programming	14,900	15%
Financial services	11,835	67%
Architecture and engineering	10,895	86%

\* Number of jobs in the Outer Orbital Area as a proportion of all jobs in the given priority industrial sector in the South East area. E.g. the Outer Orbital area provides 44% of all transportation roles in the South East area. Source: BRES data (2018).

Transport sub-sector	Number of jobs	% of South East*
Land transport and transport via pipelines	14,125	57%
Water transport	3,540	87%
Air transport	325	3%
Postal and courier activities	2,375	31%
Warehousing/transportation support	19,125	46%

# Earnings

In 2019, the average resident in the Outer Orbital area earned £30,707. This is relatively low compared to other areas in the South East.

Figure 1.3 shows the average earnings for residents from 2004 to 2019.

Historically, the Outer Orbital Area has experienced the lowest median resident earning compared to other sub-regions in the South East. That said, average earnings have risen in recent years and the Outer Orbital area has started to close the gap with other parts of the South East.

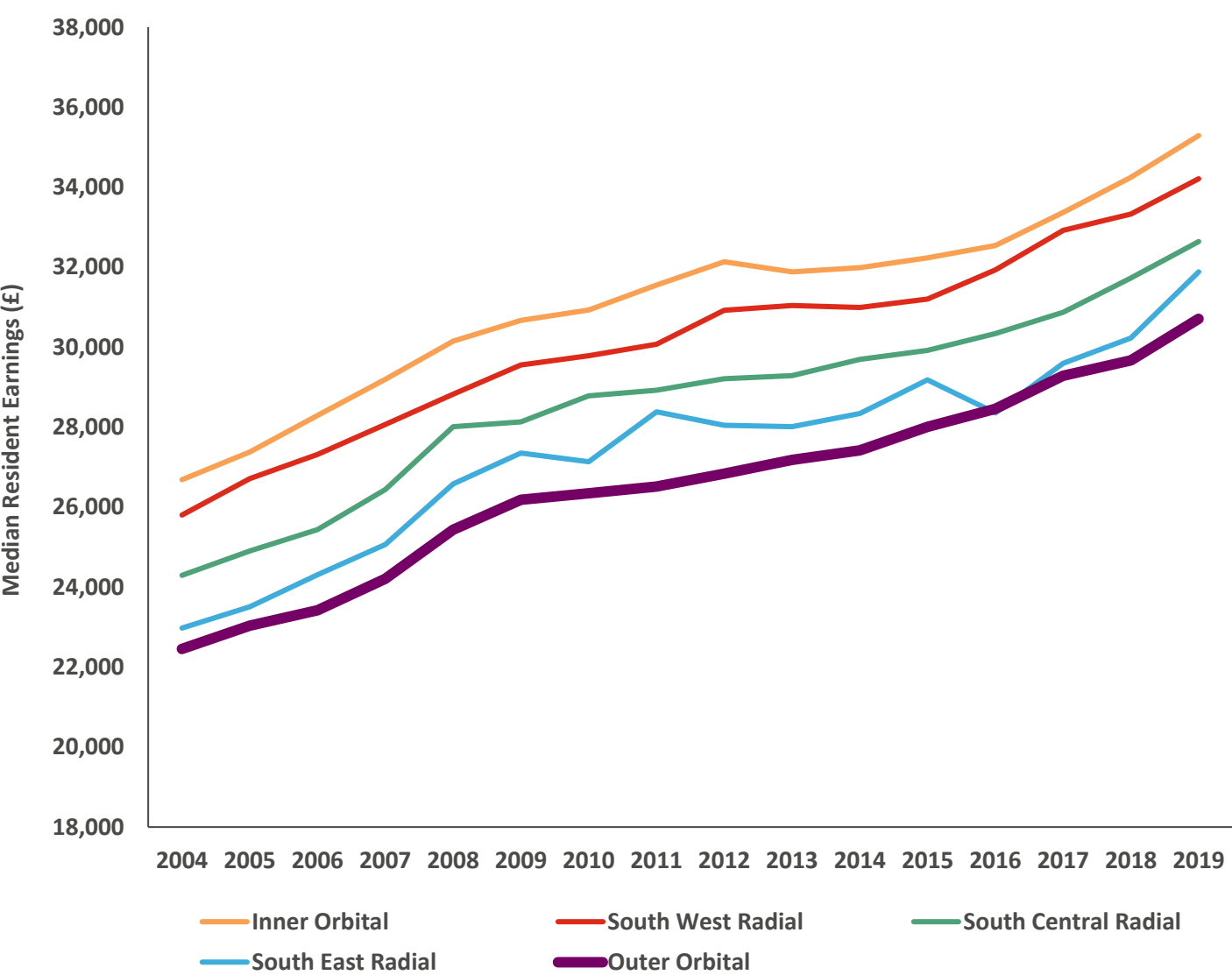
There are significant variations in earnings and earnings growth between the local authorities in the Outer Orbital area.

Areas which have experienced the highest increase in resident earnings in the past 10 years include Adur (31%), Southampton (28%), Chichester (28%), Ashford (26%) and Eastbourne (25%).

In contrast, other areas have experienced little growth in the last 10 years, including Rother (2%), Eastleigh (4%) and Arun (10%).

This trend suggest urban areas may be growing faster rural areas – although this is just one of many possible explanations.

Figure 1.3: Average resident earnings over time in the South East Region



Source: NOMIS Official Labour Market Statistics, Resident Earnings (201)

# Housing Affordability

In 2019, the average home in the Outer Orbital area cost more than nine times the average income in this area. While this is high compared to the rest of the UK, it is lower than other areas in the South East.

Figure 1.4 shows the affordability ratio for each area in the South East from 2002 to 2019.

The affordability ratio is calculated using the median house price divided by the median resident earnings. This ratio has been growing for all corridors in the past decade, indicating that housing is becoming more unaffordable.

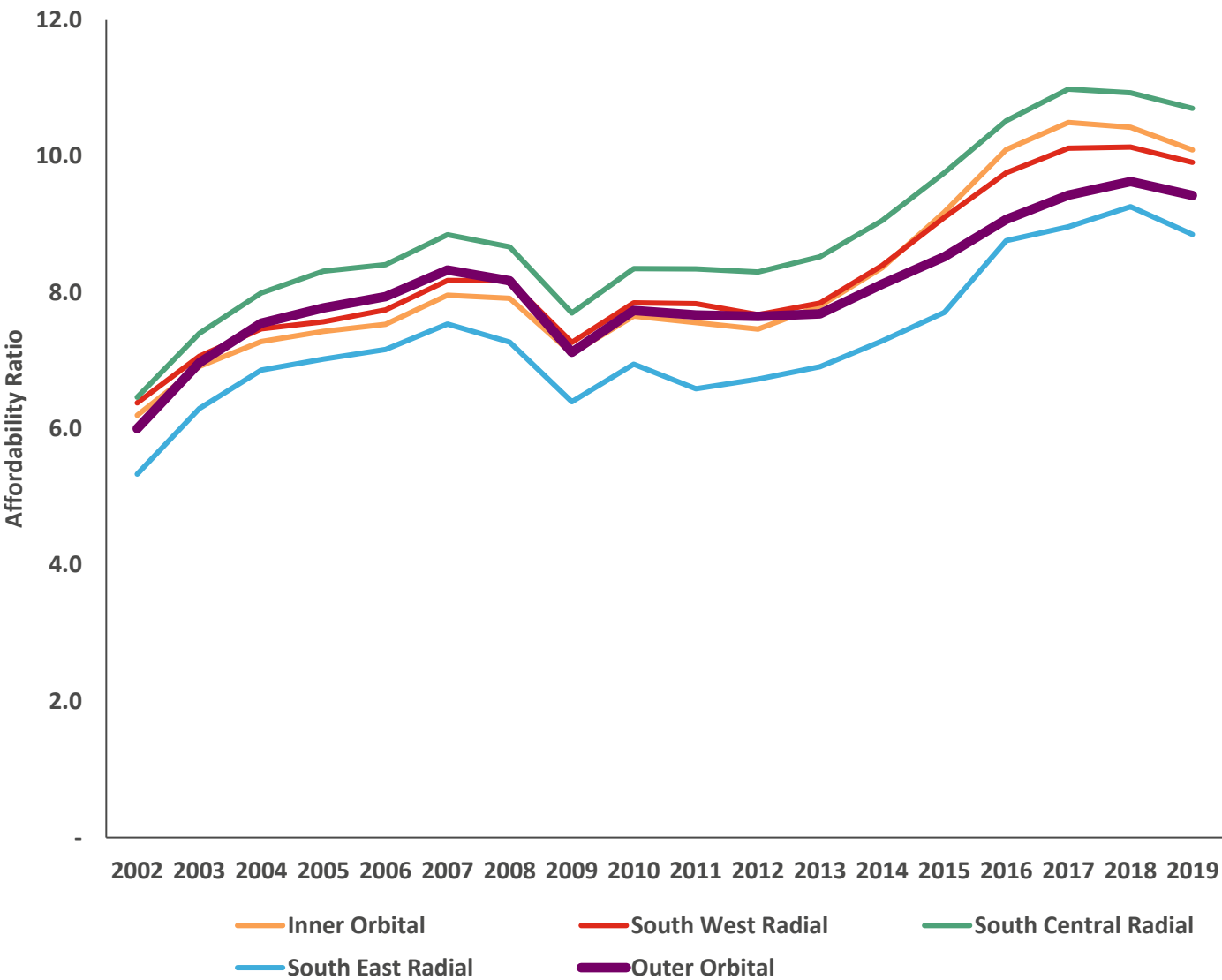
This growth is predominantly driven by house prices increasing almost twice as fast when compared with resident earnings.

That said, of the five sub-regions, the Outer Orbital area has experienced the slowest increase in the past decade, at 32%, in contrast to 37% across the South East Region.

In 2019, the most affordable housing in relation to earnings was in Gosport, with a ratio of 7:1. The cities of Southampton and Portsmouth are also affordable, with a ratio of 7.5:1.

In contrast, the least affordable housing is in West Sussex, with Adur and Brighton and Hove both having a ratio of in excess of 11:1.

Figure 1.4: Housing Affordability ratio over time in the South East Region



Source: ONS House Price Existing Dwellings to Residence Based Earnings Ratio (2019)



# Part 1c

## Social Context



# Social Context

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## Deprivation

**There are substantial pockets of deprivation, notably in urban areas.**

As illustrated by **Figure 1.5**, there are high levels of inequality along the corridor, with key pockets of deprivation in concentrated areas.

In very general terms, socioeconomic outcomes tend to be weaker in the eastern part of the corridor and in urban areas. The areas with the significant pockets of deprivation include South Hampshire, Brighton and Hove, Hastings/Bexhill, Folkestone and Thanet.

Poor transport connectivity can be a factor which significantly limits an areas prosperity, acting as a barrier to employment opportunities and services. It is therefore important that these areas are prioritised transport investment in the future. However, it is also acknowledged that transport investment, on its own, is rarely enough to address long standing socioeconomic problems.

Further discussion of socioeconomic outcomes in the context of the wider South East is presented in Part 3.

## Air Quality

**The most significant air quality challenges are found in urban areas.**

As illustrated by **Figure 1.6**, there are multiple air quality management areas along the corridor's length. These are particularly focused around the urban areas in the central (Brighton and Hove) and western (Portsmouth and Southampton) segments of the corridor. These are the most heavily urbanised areas of the corridor, and therefore have the highest densities of housing, transport and industry.

Highways are one of the most significant contributors to poor air quality, and many of the worst areas are found where large interurban corridors and strategic roads pass through urban areas. This is particularly notable in Portsmouth and Southampton, which have a high density of major roads.

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## Safety

**Collisions on highways are a key problem, especially around the largest cities.**

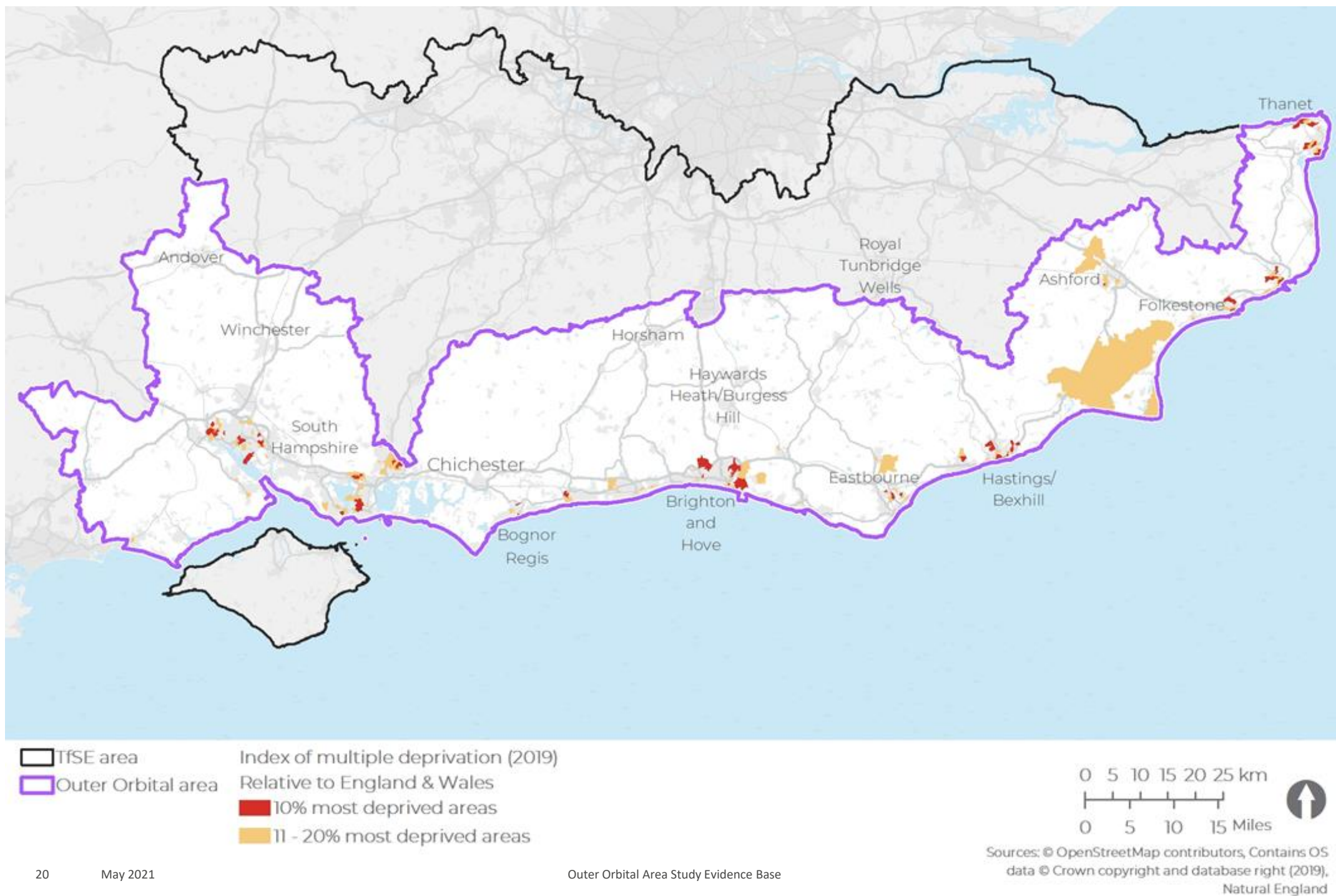
As illustrated by **Figure 1.7**, there are several accident hotspots distributed along the corridor, particularly around the urban areas of Southampton, Portsmouth, Brighton and Hove, and Hastings.

This increased concentration of accidents around urban areas is likely reflective of the fact that there are more junctions and intersections, and therefore more opportunities for collision around these urban areas.

There is also a higher concentration of traffic, which means that the probability of collisions is higher. Improved junction design, and lower car usage, is likely to improve the rates of accidents around these cities.


The A27 strategic highway also has a poor safety record, particularly in Worthing, Lancing, and between Lewes and Polegate.

**Figure 1.5: Indicators of Multiple Deprivation**



**Figure 1.6: Air Quality Management Areas**



-  TfSE area
-  Outer Orbital area
-  Air quality management area

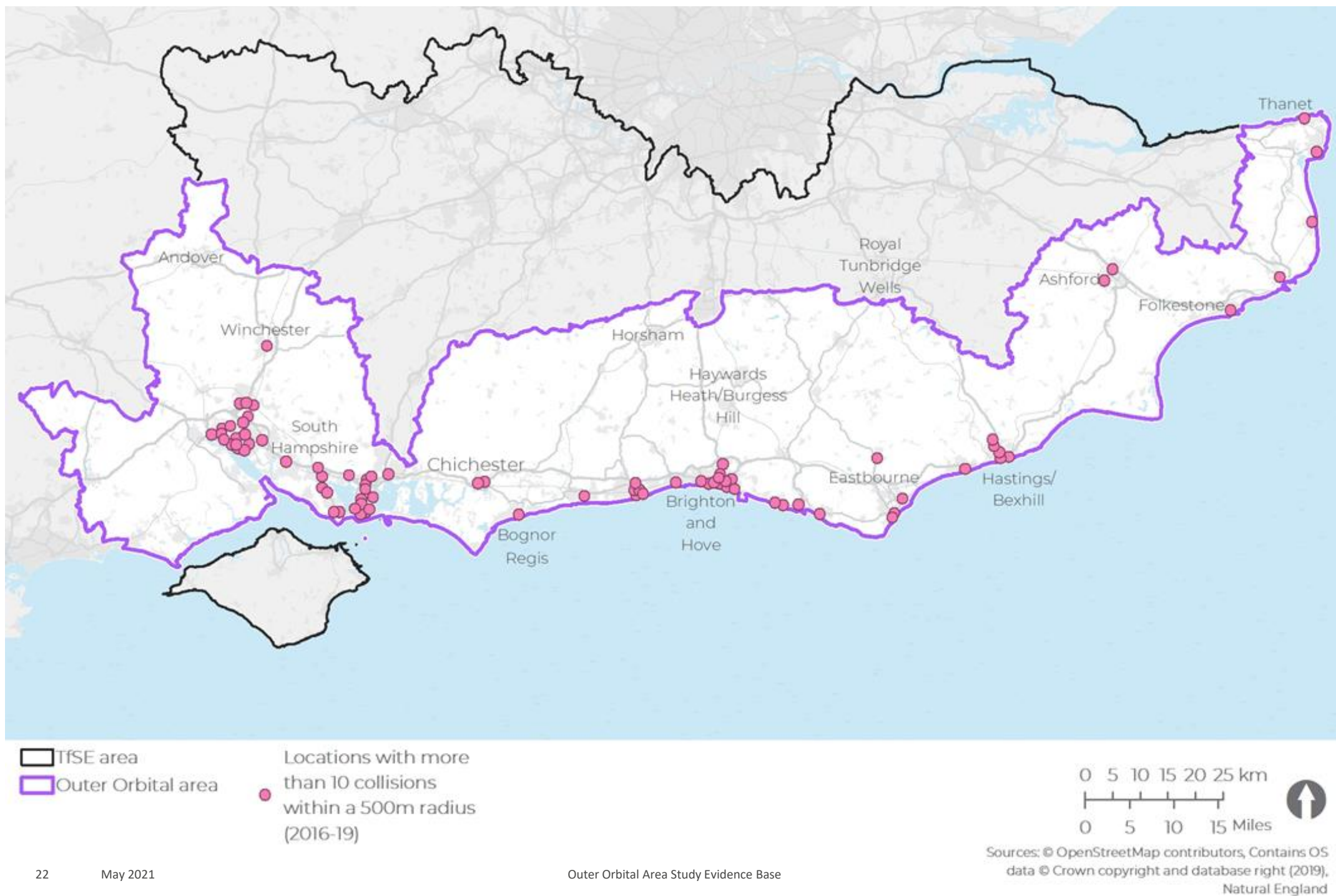
0 5 10 15 20 25 km  
0 5 10 15 Miles



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2019), Natural England



**Figure 1.7: Accident hotspots**





# Part 1d

## Environmental Context

# Environmental Context

## Protected Areas, Landscapes, Ecology

**The Outer Orbital area has a rich natural environment that is cherished by local residents and visitors.**

**Figure 1.8** shows Protected Areas and **Figure 1.9** shows Landscape Character Areas of the Outer Orbital Area. Key features include:

- 1 National Parks (including the 1<sup>st</sup> and 4<sup>th</sup> populated national parks in the UK);
- 4 Areas of Outstanding Natural Beauty;
- 7 Marine Conservation Areas;
- 11 Ramsar sites;
- 10 Special Protection Areas;
- 31 Special Areas of Conservation;
- 18 National Nature Reserves;
- 13,009 Ancient woodland sites; and
- 242 Sites of Special Scientific Interest.

The area has more than 60% of the nation's vegetated shingle resource; more than 15% of its coastal and floodplain grazing marsh; 16% of coastal lagoons; and over 10% of England's intertidal mudflats. It is also home to 40% of Europe's offshore chalk exposure, including well known landmarks at Beachy Head and Dover.

## Heritage

**The area has a very rich natural and historical heritage.**

As **Figure 1.10** shows, the area has a rich cultural heritage. The area is home to:

- 604 Grade 1 listed buildings;
- 1,355 scheduled monuments;
- 3 registered battlefields: Battle of Hastings (1066) and Battle of Lewes (1264) and Battle of Cheriton (1644);
- 130 registered parks and gardens; and
- 3 Heritage Coast areas (South Foreland, Dover – Folkstone, and Sussex).

The area is also home to:

- Several historic towns and cities, including Winchester, Chichester, Arundel, Lewes, Old Hastings, Rye, and Deal;
- Historic ports, including the “cinque ports” (Hastings, New Romney, Hythe, Dover and Sandwich) and the historic port of Portsmouth – home to the Royal Navy;
- The Kent and East Sussex Railway and the Romney, Hythe & Dymchurch railway; and
- Internally renowned festivals such as Glyndebourne.

## Flood Plains

**There are major flood risks on large sections of the corridor.**

As illustrated by **Figure 1.11**, by virtue of the corridor's long coastline, and numerous rivers, the Outer Orbital area contains multiple areas at high risk of flooding.

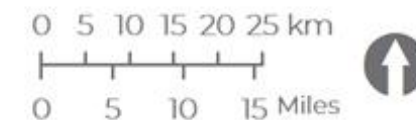
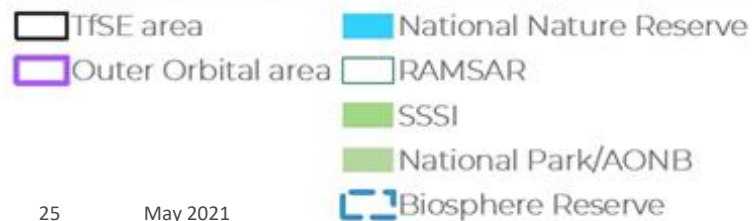
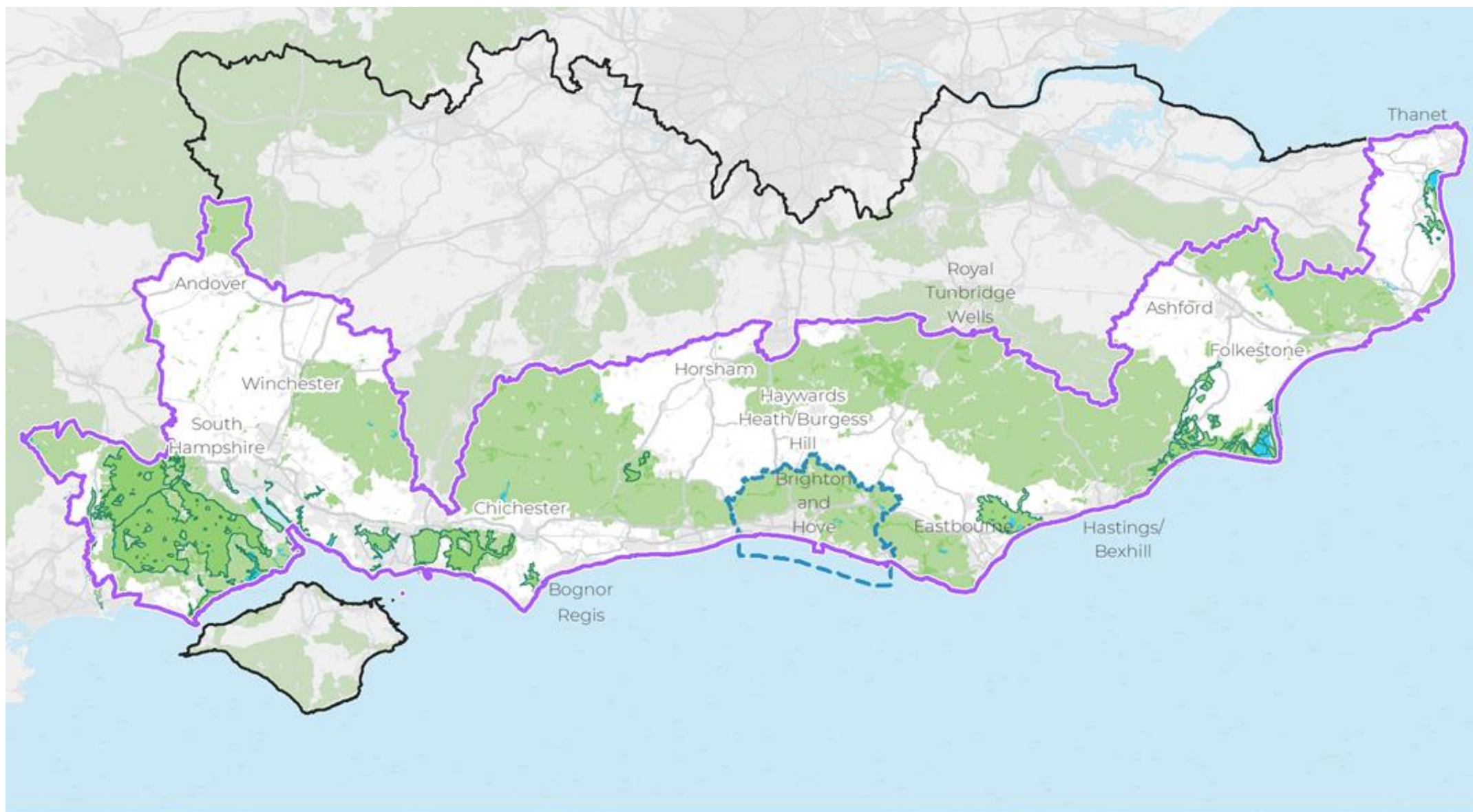
At its easternmost end, there are potentially major floor risks around Thanet and Sandwich. Romney Marsh lies further along the corridor – a large area of grade 3 flood risk.

Pevensey Levels, immediately to the north east of Eastbourne, also covers a considerable area. At the corridor's Western end, the area around Chichester harbor contains numerous small areas with potentially high flooding risk. The Manhood peninsula in West Sussex was affected by significant flooding in July 2012. Other parts of this county were also adversely affected by this event.

More recently, severe weather has affected rail corridors in the South East (through causing landslips) and the railway between Folkestone and Dover is regularly affected by adverse weather. There is a consensus in the scientific community that incidents of extreme weather will only increase as the impact climate change starts to materialise globally.



**Figure 1.8: Protected Areas**



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2019), Natural England



**Figure 1.9: Landscape Character Areas**



- |                         |                       |  |
|-------------------------|-----------------------|--|
| TfSE area               | 121 Low Weald         | 128 South Hampshire Lowlands                 |
| Outer Orbital area      | 122 High Weald        | 130 Hampshire Downs                          |
| National Character Area | 123 Romney Marshes    | 131 New Forest                               |
| 113 North Kent Plain    | 124 Pevensey Levels   | 132 Salisbury Plain and West Wiltshire Downs |
| 119 North Downs         | 125 South Downs       | 134 Dorset Downs and Cranborne Chase         |
| 120 Wealden Greensand   | 126 South Coast Plain | 135 Dorset Downs                             |

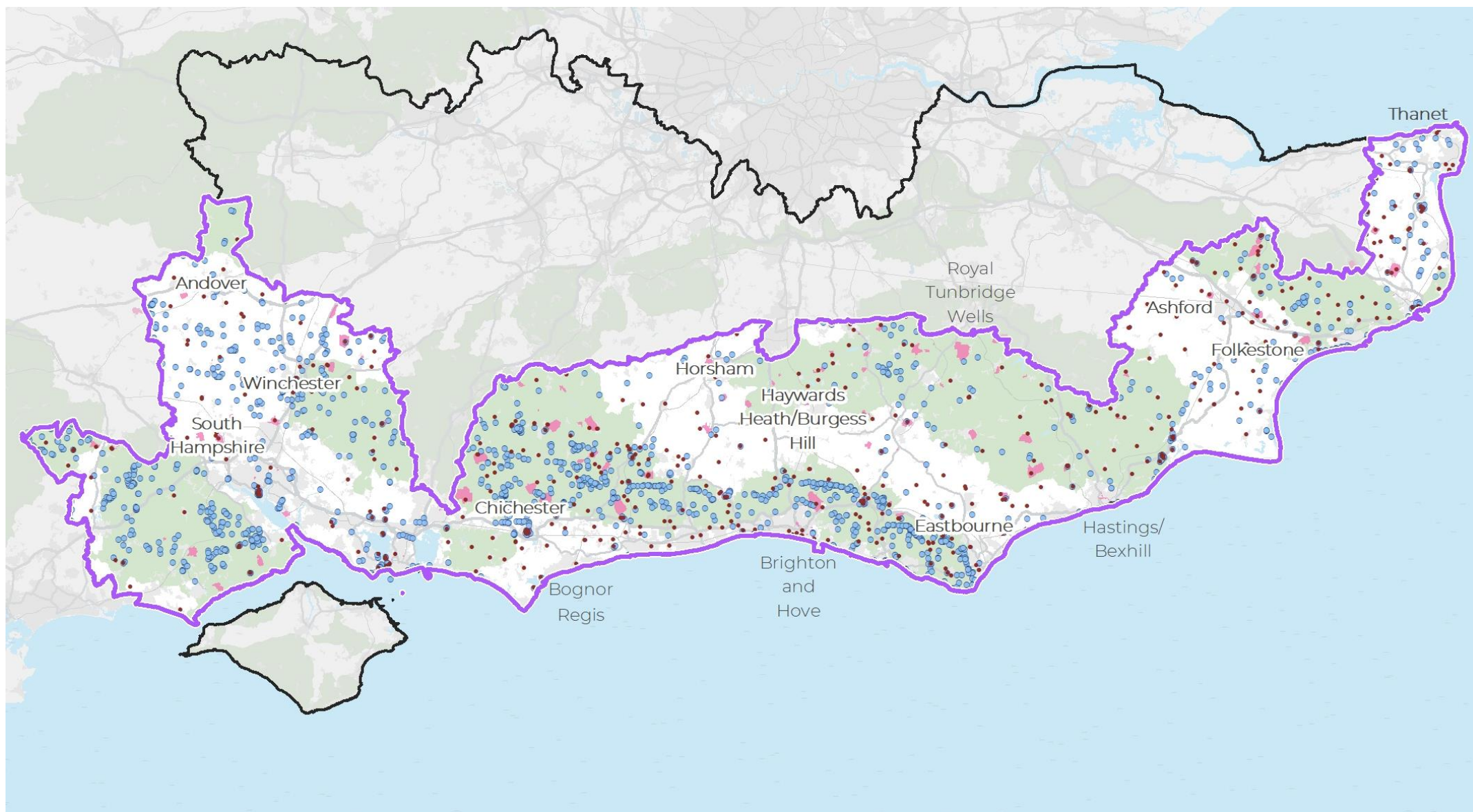
0 5 10 15 20 25 km

0 5 10 15 Miles

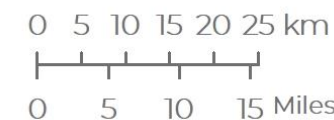


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**Figure 1.10: Heritage**



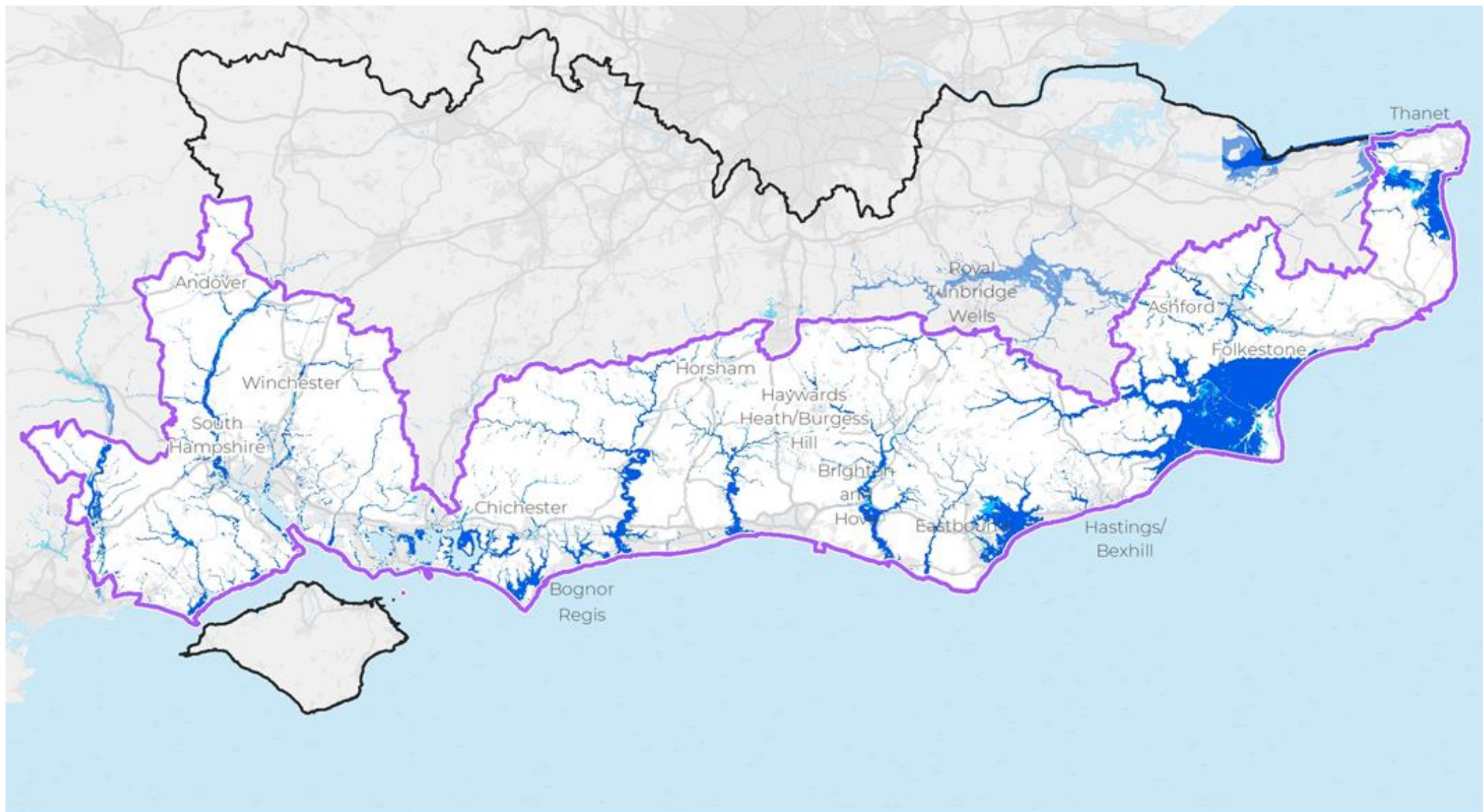
- TfSE area
- Outer Orbital area
- Ancient Scheduled Monument
- Grade 1 Listed Buildings
- Historic Parks/Garden
- National Park/AONB



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2019), Natural England



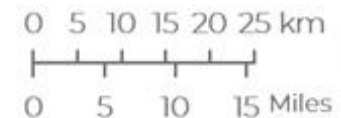
**Figure 1.11: Flood Risk Areas**



- TfSE area
- Outer Orbital area
- Flood zone 2
- Flood zone 3

Zone 2 - 0.1 - 1% chance of flooding each year  
 Zone 3 - > 1% chance of flooding each year from rivers, or >0.5% chance of flooding each year from sea

Outer Orbital Area Study Evidence Base



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2019), Natural England, DEFRA

# The Carbon Challenge

## Current Carbon Emissions

In 2018, the Outer Orbital area emitted the lowest transport carbon emissions per capita of all areas in the South East.

6,017kTCO<sub>2</sub> were emitted by transport in the Outer Orbital Area 2018, making up 44% of total carbon emissions. This is in line with other sub-regions in the South East. **Figure 1.12** provides a breakdown of transport carbon emissions per capita for each area of the South East. Emissions by mode are provided in **Figure 3.5**.

36% of transport emissions are classed as minor road carbon emissions. This is higher than the South East average (28%), indicating the lower coverage of major roads across the corridor.

## Current Carbon Trajectory

Reaching a net zero carbon transport network by 2050 (yet alone 2030) will be very challenging.

As **Figure 1.13** shows, Carbon emissions from transport in the South East are declining, but not at a rate fast enough to reach net zero by 2050 or 2030.

Economic growth and carbon emissions have become decoupled at both a national and regional scale (since 1990 the UK Economy has grown 72% while the country’s carbon emissions have dropped by 42%) meaning that decarbonisation should be seen as an economic opportunity, rather than a burden.

At the time of writing in March 2021, 18 of the 29 local authorities (upper and lower tier) in the Outer Orbital area have declared Climate Emergencies and set targets to reach net-zero carbon emissions by 2050 (in some cases, much earlier).

Figure 1.12: Transport Carbon Emissions South East Area

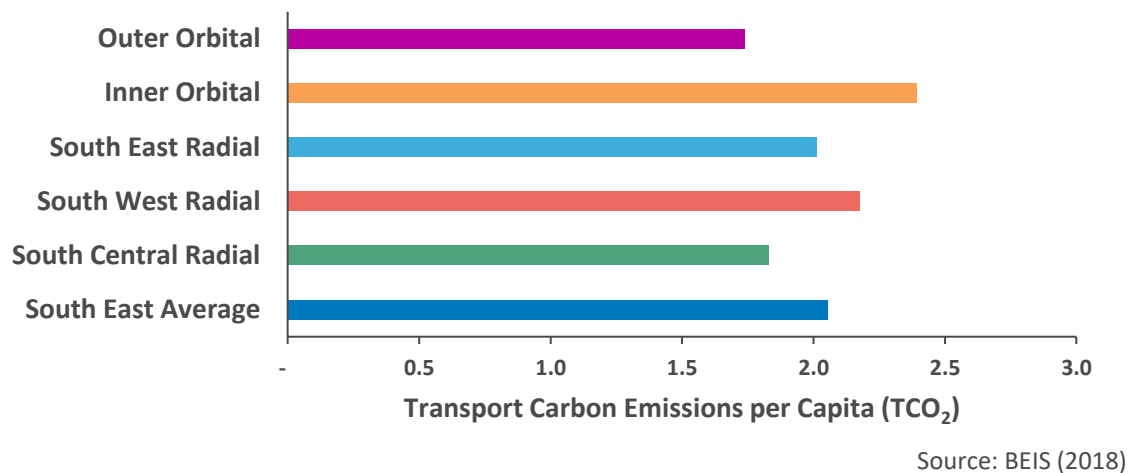
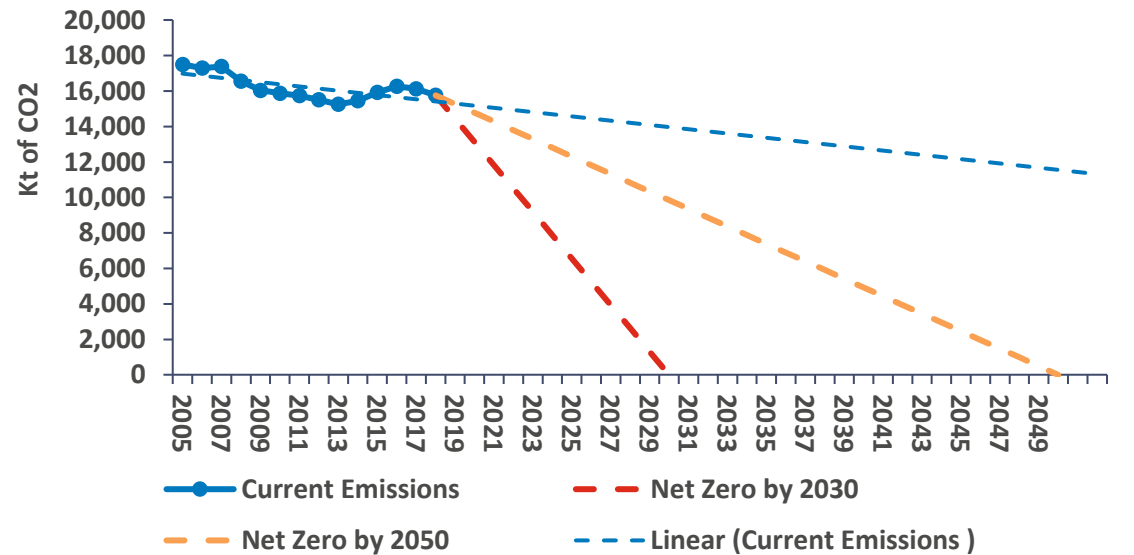


Figure 1.13: Carbon Emissions Trajectory for the South East Area





# Part 1e

## Transport Networks

# Transport Networks

## Highways

**Strategic highway connectivity along the South Coast is mixed. While there is good provision in the Solent area, there are significant gaps in West and East Sussex.**

**Figure 1.14** shows the key highways in the Outer Orbital area and highlights congestion “hot spots” on strategic and major roads.

The M27/A27 is the key highway that serves longer distance, east-west movements in the Outer Orbital area. Between Southampton and Portsmouth, the road is of Motorway grade standard. However, east of Portsmouth, there are notable gaps (and congestion hotspots) at Chichester, Arundel, Worthing, Lancing and between Lewes and Polegate.

Many local journeys are dependent on the A27 and the A259, which mirrors the A27 along much of the South Coast. Disruption on either road can have knock on effects on the other. Also, stakeholders have advised many motorists travel through the South Downs National Park to avoid the A27 during busy periods.

TfSE’s vision for planning for people and places, as opposed to planning for vehicles. This means any future highway investment should support sustainable travel patterns/objectives and be delivered with great sensitivity.

## Railways

**The Outer Orbital corridor has a relatively dense railway network. However, the level of service provided on east-west routes is generally poorer than on radial routes.**

The East and West Coastway line provides east-west connectivity along South Coast. This route is used by both stopping services and faster regional services between Southampton, Portsmouth, Brighton and Eastbourne.

**Figure 1.15** presents the average speed of rail journeys along rail corridors in the Outer Orbital area and highlights the weaknesses in east-west services compared to radial services.

There are tradeoffs in managing capacity between local, longer distance, orbital, and radial journeys, which will need to be managed in options appraisal later in this study.

**Figure 1.16** presents a map of the rail network and station usage in 2018/19. In this year, the busiest stations (by passengers) locations:

- Brighton – 17.4 million;
- Southampton – 6.7 million;
- Ashford International – 4.1 million;
- Eastbourne – 3.6 million; and
- Chichester – 3.0 million.

## International Gateways

**The South Coast is well served by several international gateways. Access to these gateways is generally good, although some constraints do exist.**

**Figure 1.17** shows the international gateways in the area, including passenger and freight ports, airports and the Channel Tunnel rail link.

In 2019, the busiest ports (by tonnage) were:

- Southampton – 33.1 million tonnes;
- Dover – 23.4 million tonnes;
- Portsmouth – 3.1 million tonnes; and
- Newhaven – 0.8 million tonnes.

The Port of Dover served 12 million passengers in 2018 and the Port of Southampton is the busiest cruise ship terminal in the UK.

In 2019, the busiest airports in the area (by passengers) were:

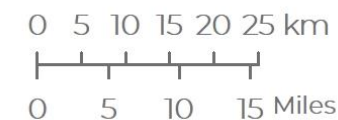
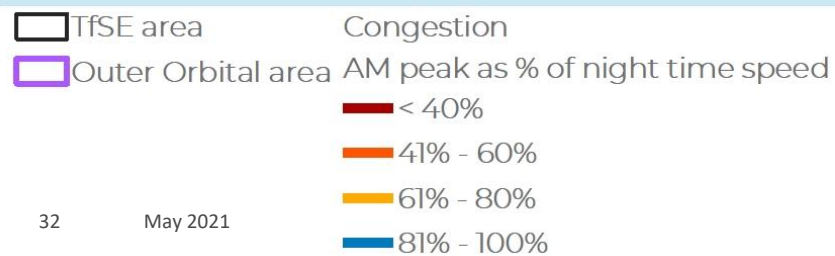
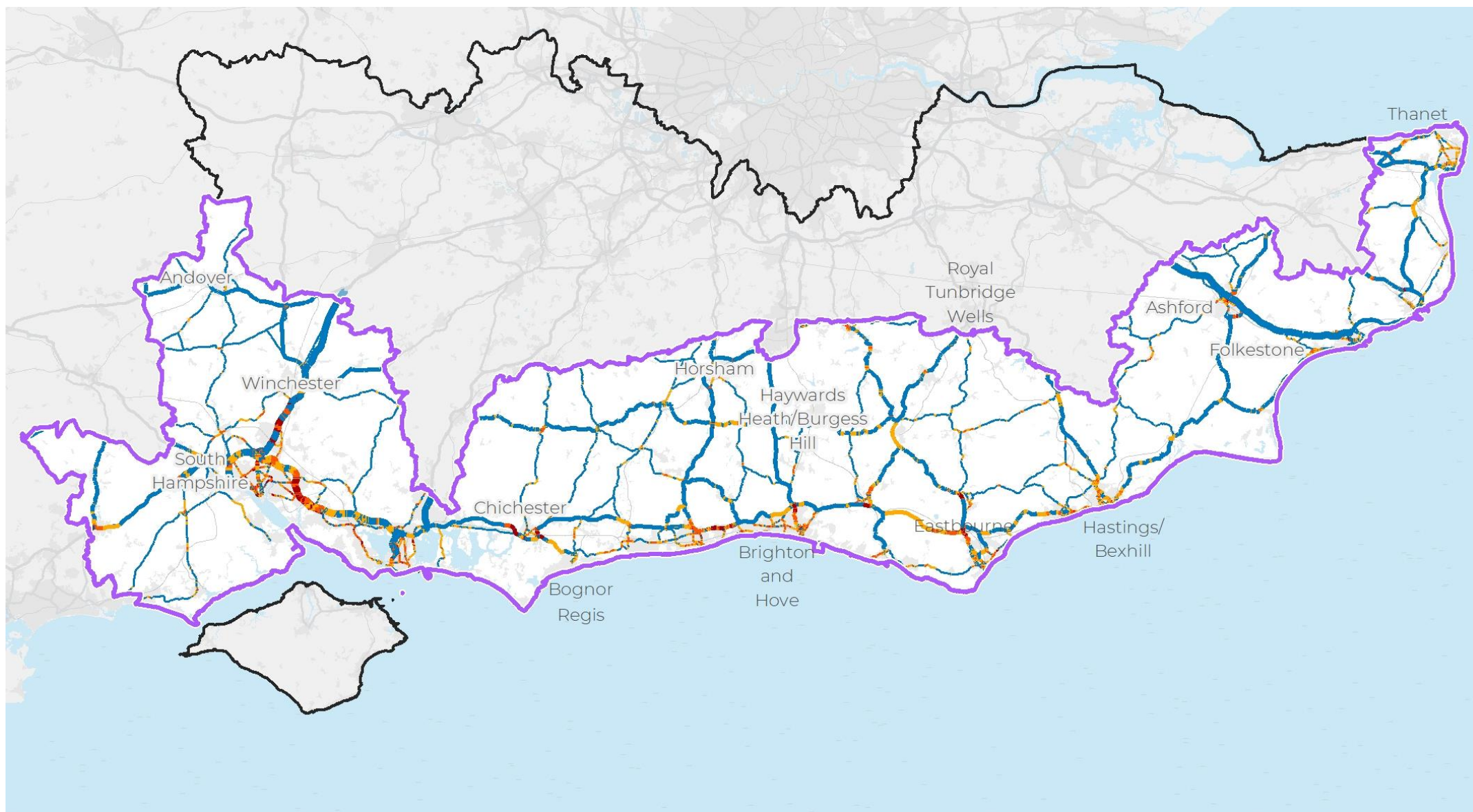
- Gatwick – 46.6 million; and
- Southampton – 1.8 million.

In 2018, the Channel Tunnel served:

- 21.6 million passengers via Le Shuttle and Eurostar services;
- 1.3 million tonnes of rail freight via freight operators such as DB Cargo UK; and
- 1.7 million freight vehicles via Le Shuttle.



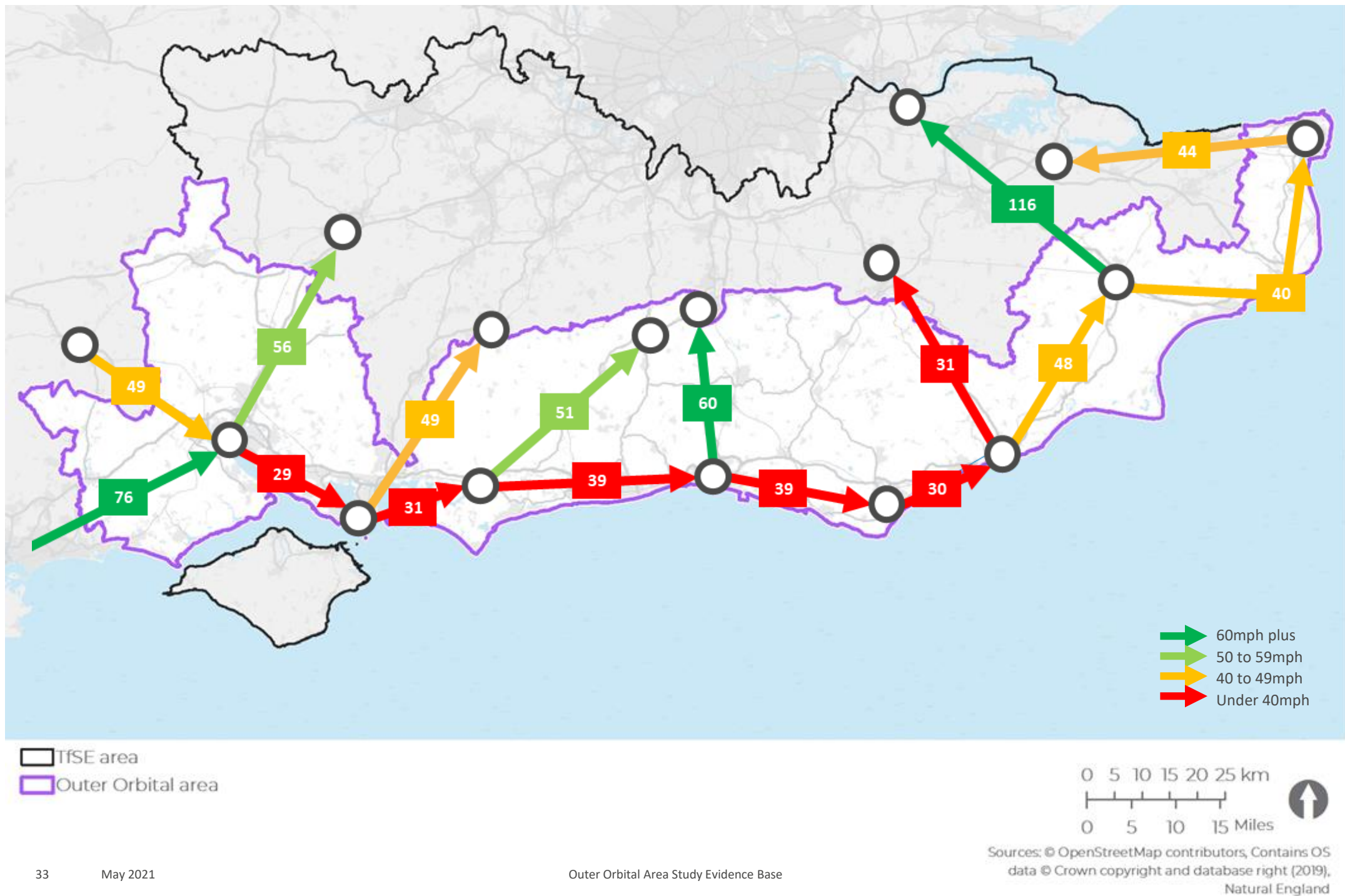
**Figure 1.14: Highway network and congestion**



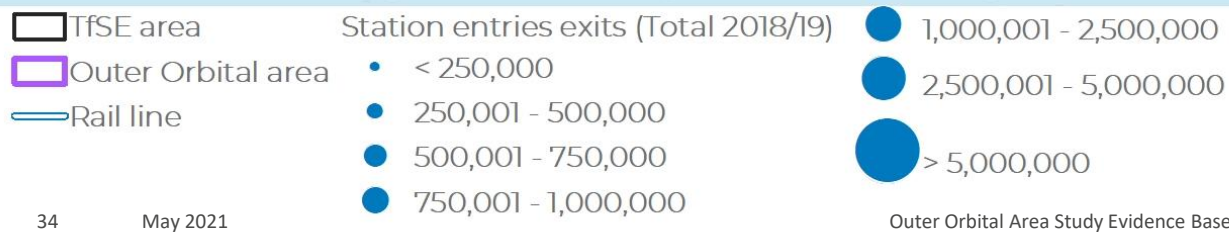
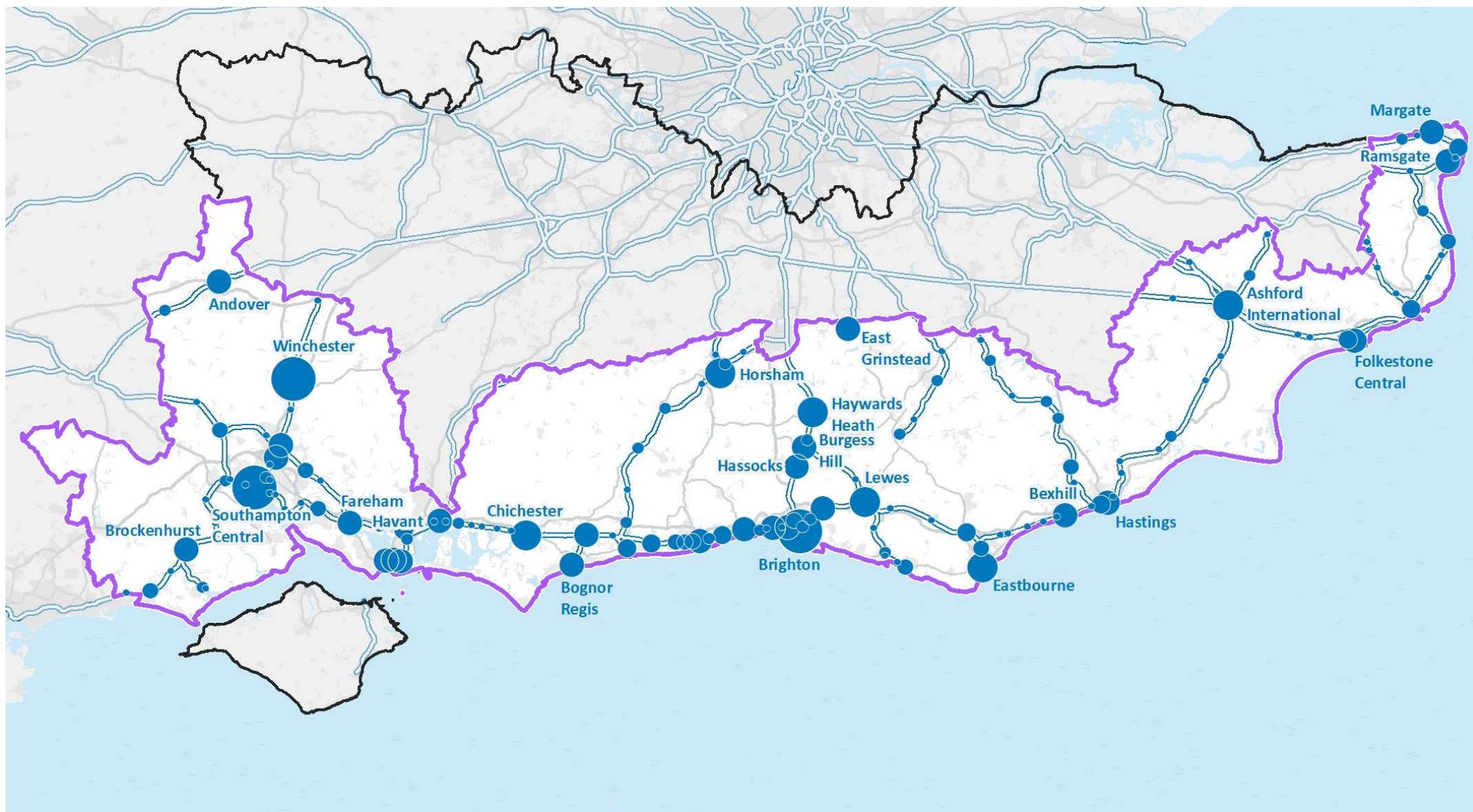
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**Figure 1.15: Railway connectivity in the Outer Orbital Area**



**Figure 1.16: Railway network and station entries and exits**



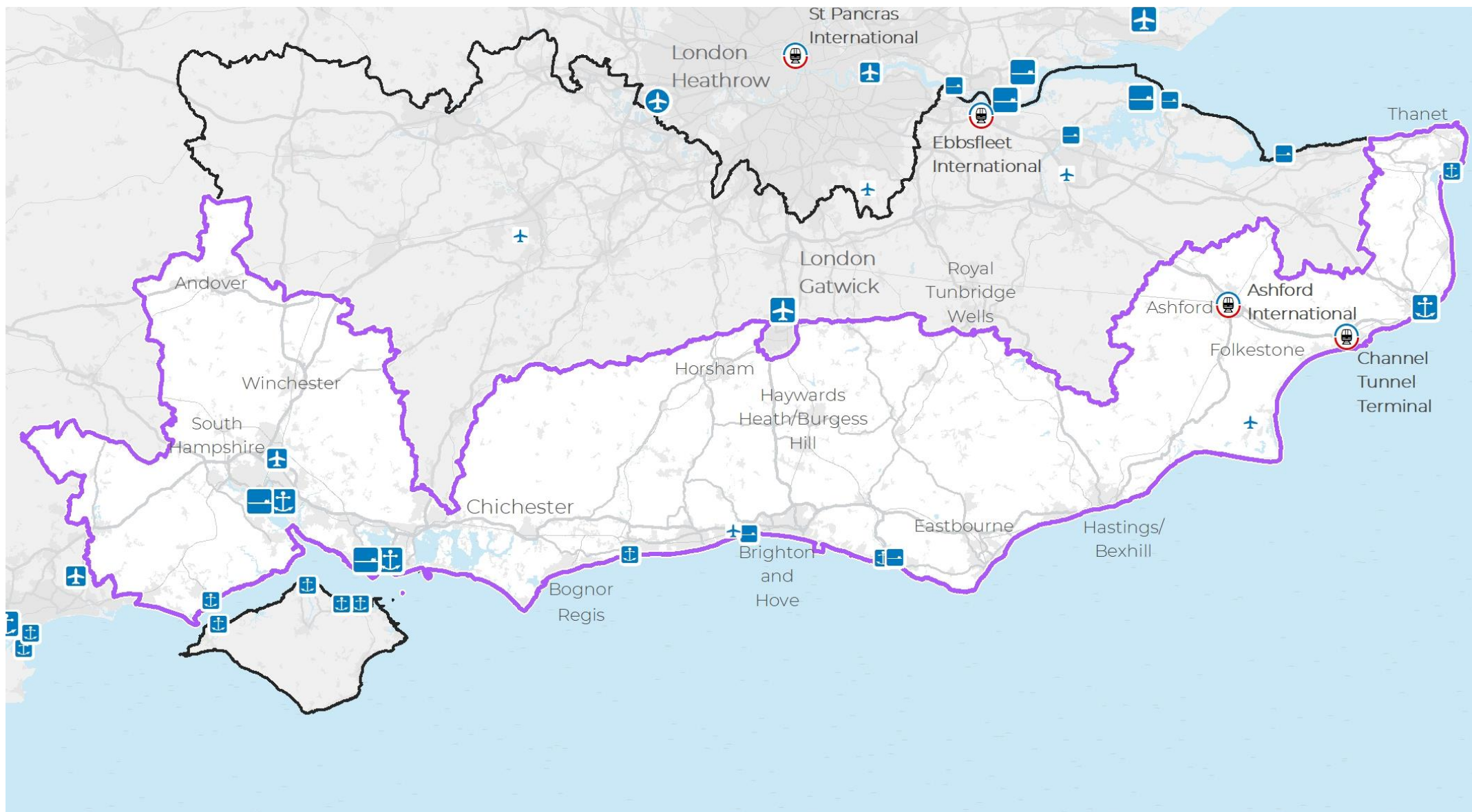
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**Figure 1.17: International gateways**



- |                    |          |                 |
|--------------------|----------|-----------------|
| TfSE area          | Airports | Ports           |
| Outer Orbital area | Hub      | Major freight   |
| Eurotunnel station | Major    | Major passenger |
|                    | Regional | Minor freight   |
|                    | Local    | Minor passenger |

0 5 10 15 20 25 km  
0 5 10 15 Miles



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## Part 1f

# Public Transport Access and Connectivity



# Public Transport Access and Connectivity

## Public Transport Access

As might be expected, urban areas generally enjoy better access to public transport services than rural areas – but there are some interesting exceptions.

**Figure 1.18** shows the average minimum journey time to key services by public transport (plus walking). Key services are defined as providers of retail, education, and health services. Unsurprisingly, access to these services is much faster in urban areas compared to rural areas. Not only to people living in rural areas need to travel further for these services, the quality of public transport provision tends to be more limited in rural areas. Access to services by public transport appears to be particularly challenging in parts of the New Forest, West Sussex, and southern Kent.

**Figure 1.19** shows the difference in journey time between car and public transport access to the same services considered in Figure 1.18. This tells a similar story - public transport is slightly slower than driving in urban areas, but significantly slower than driving in rural areas.

**Figure 1.20** shows trends in bus use in the Outer Orbital area. This shows encouraging signs of growth in urban areas (e.g. Brighton) but significant decline in rural areas.

## Public Transport Catchment Analysis

To help better understand how Public Transport connectivity varies across the South East, we conducted analysis of Public Transport connectivity to key urban hubs.

**Figures 1.21 – 1.26** show the areas of South East England that can be reached by public transport for the following large urban areas:

- Southampton (**Figure 1.21**);
- Portsmouth (**Figure 1.22**);
- Brighton (**Figure 1.23**);
- Hastings (**Figure 1.24**);
- Ashford (**Figure 1.25**); and
- Ramsgate (**Figure 1.26**).

This analysis examines how easy/difficult it is to travel from a given point using public transport (and walking). Using isolines (lines that connect points of equal value), it shows how far it is possible to travel by 0-30 minutes, 31-60 minutes, and 61-90 minutes.

In general, spaces where this catchment covers a larger area, it also likely includes a wider range of opportunities and amenities.

The results of this analysis clearly show that that Public Transport provision is not equitable between urban areas across the South East.

**Ashford** is extremely well connected to London and other parts of the South East and is well placed to capitalise on this connectivity.

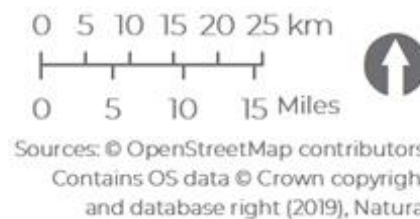
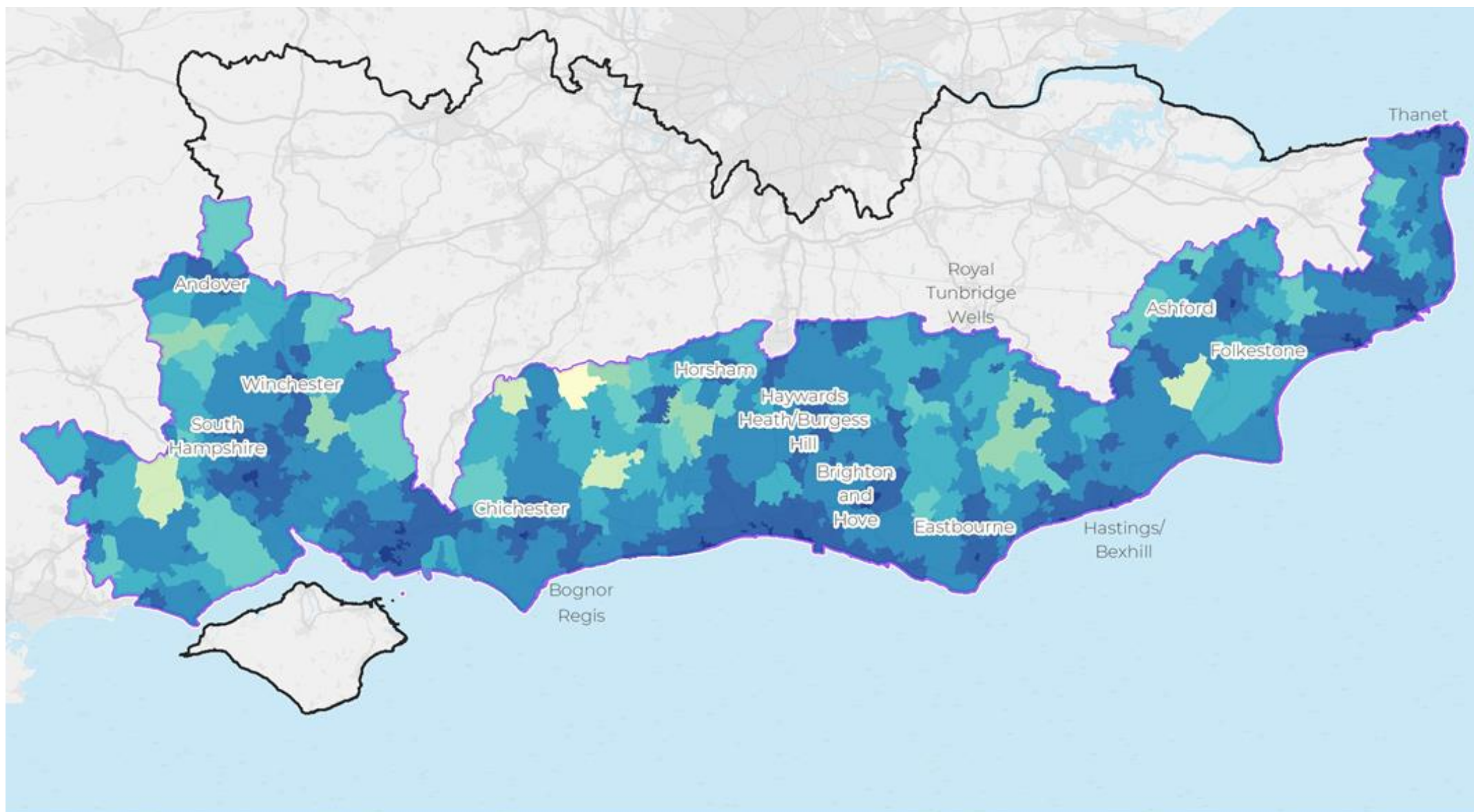
**Southampton** is also well connected to London and the rest of the South East. Its catchment area extends evenly in all directions from the City Centre.

**Brighton** has excellent connectivity north and towards London, but poorer connectivity along the coastline (both east and west).

**Ramsgate** has much poorer connectivity. It appears to take more than 90 minutes to travel beyond the boundaries of Kent and Medway, yet alone to London and other parts of the South East.

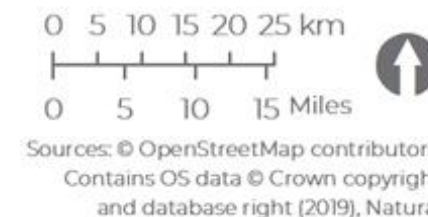
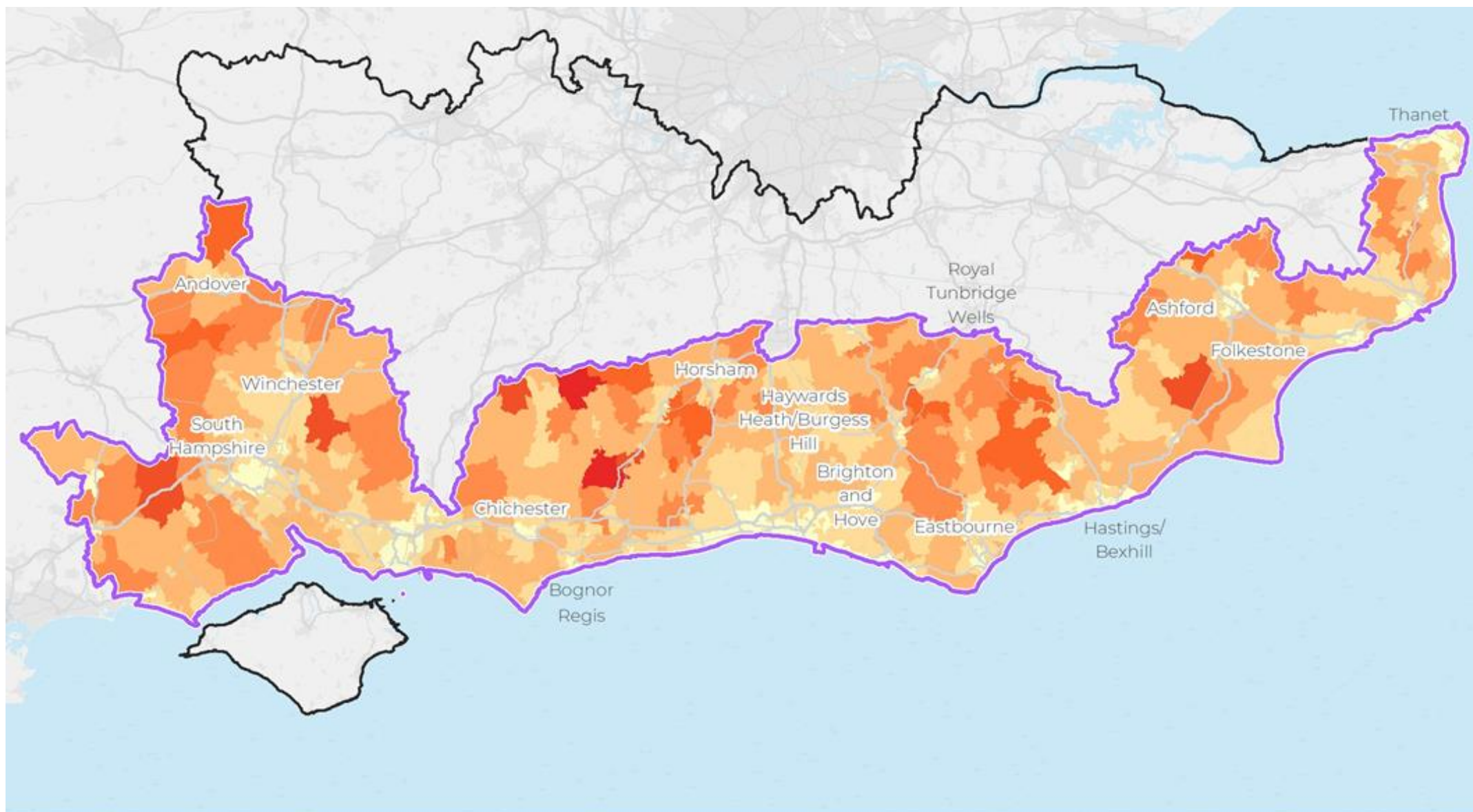
**Hastings** stands out as having by far the poorest level of connectivity of all the cities and towns presented in Figures 19 – 24. Its catchment area is much smaller than nearby Ashford and appears to show connectivity gaps both to London and along the coastline.

**Figure 1.18: Public Transport Access**

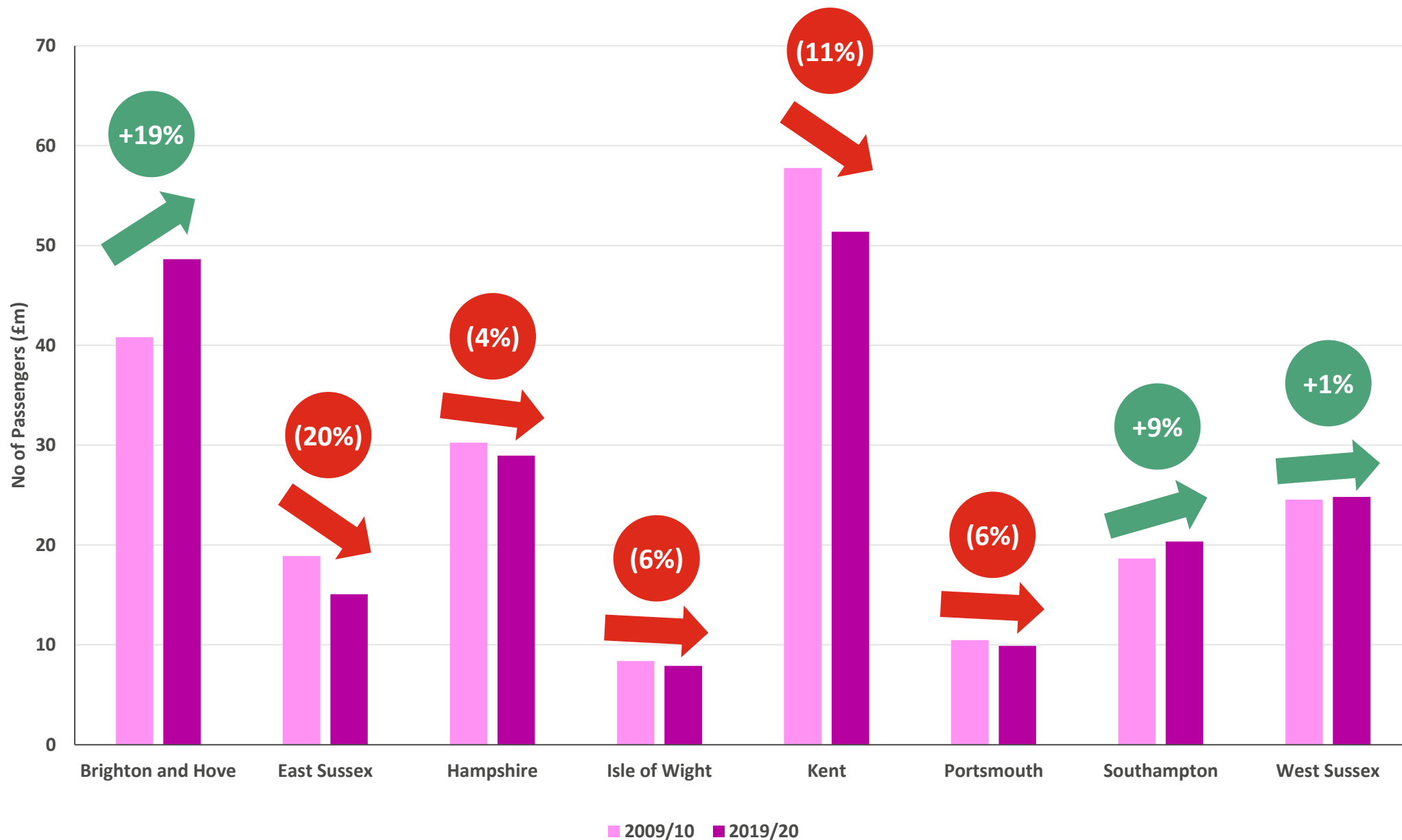




**Figure 1.19: Comparison of car and Public Transport options**

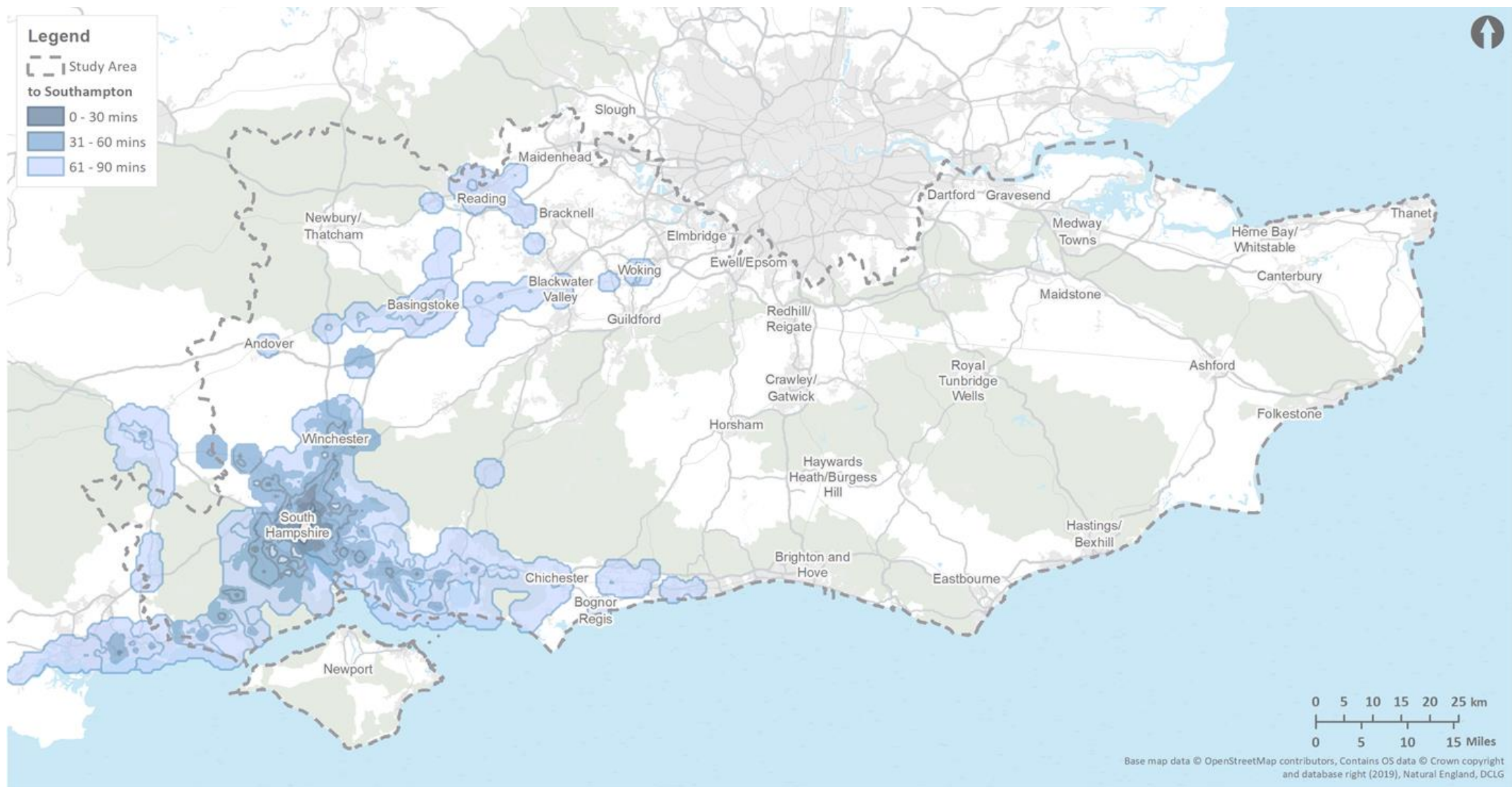


**Figure 1.20: Annual bus passengers for Local Transport Authorities in the Outer Orbital Area**

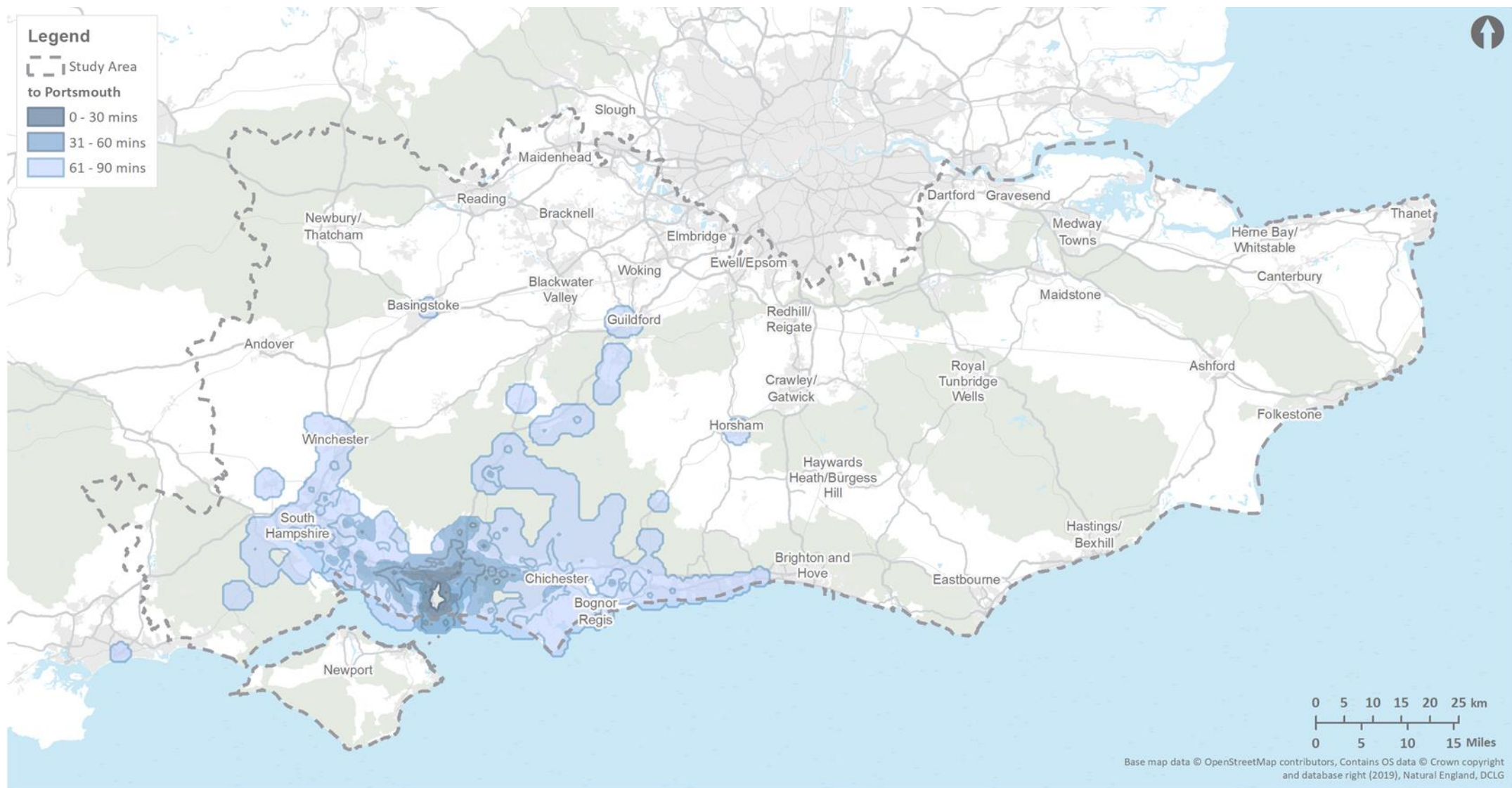




**Figure 1.21: Southampton Public Transport Catchments**

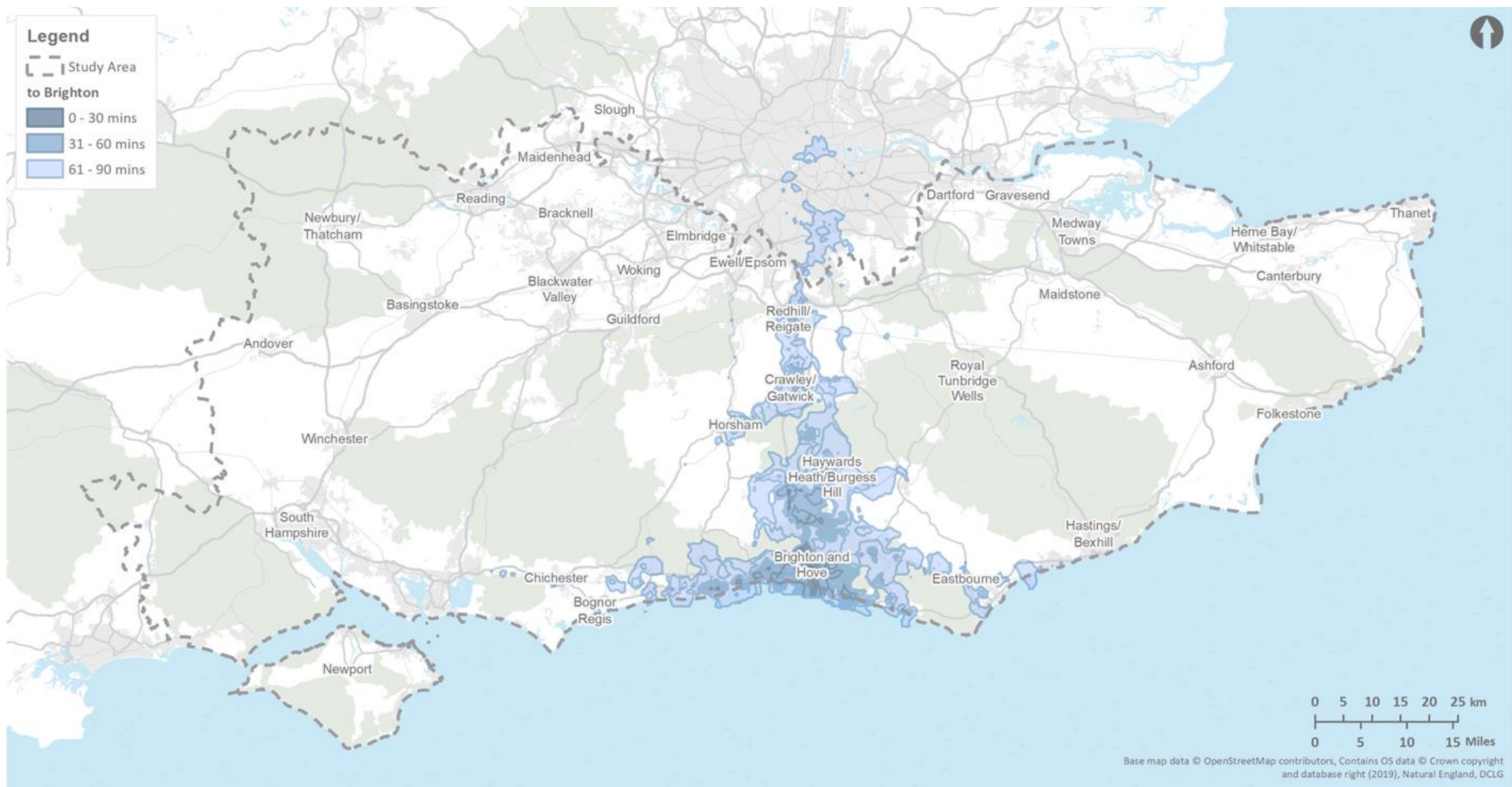


**Figure 1.22: Portsmouth Public Transport Catchments**





**Figure 1.23: Brighton Public Transport Catchments**

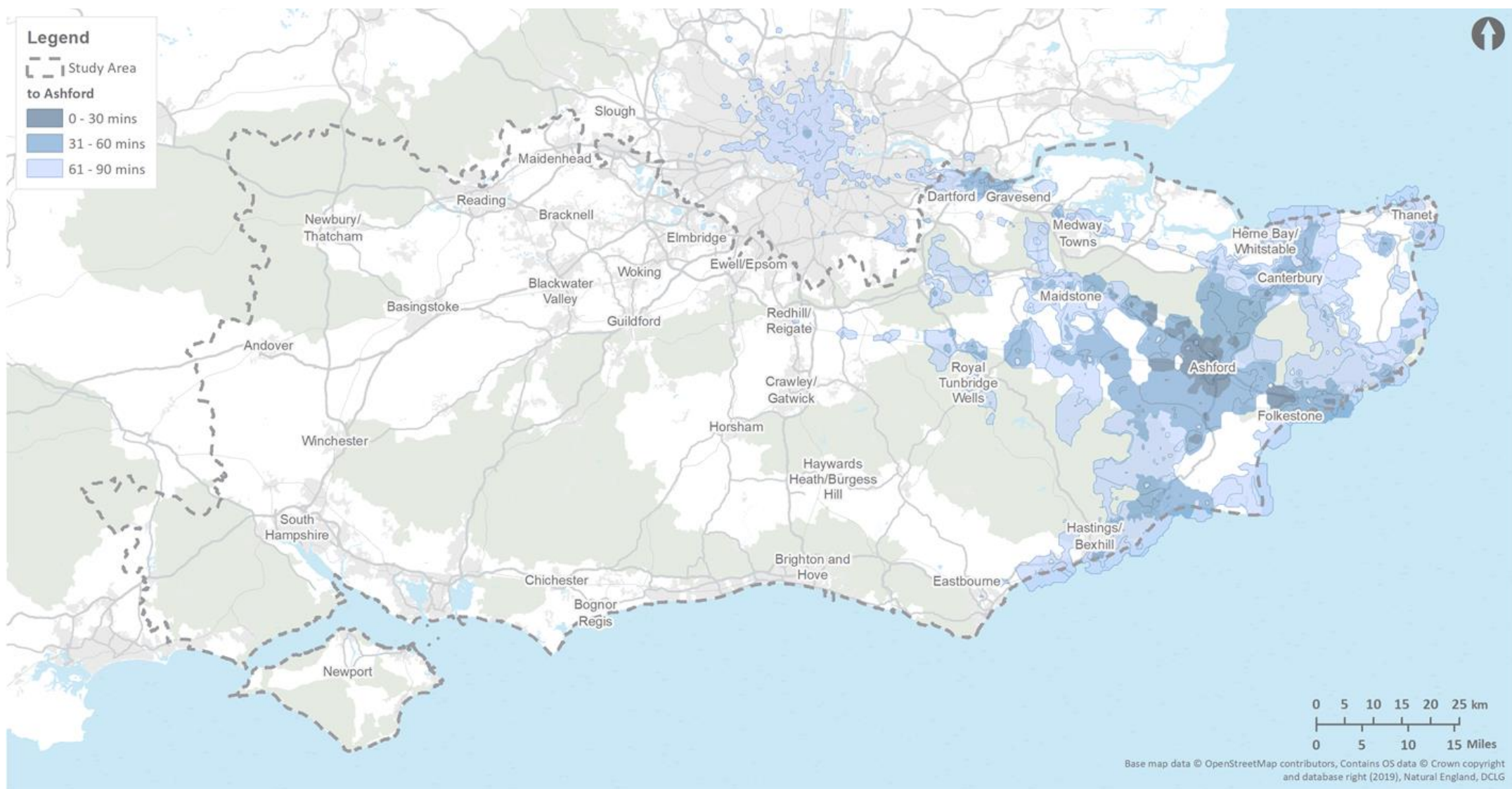


**Figure 1.24: Hastings Public Transport Catchments**

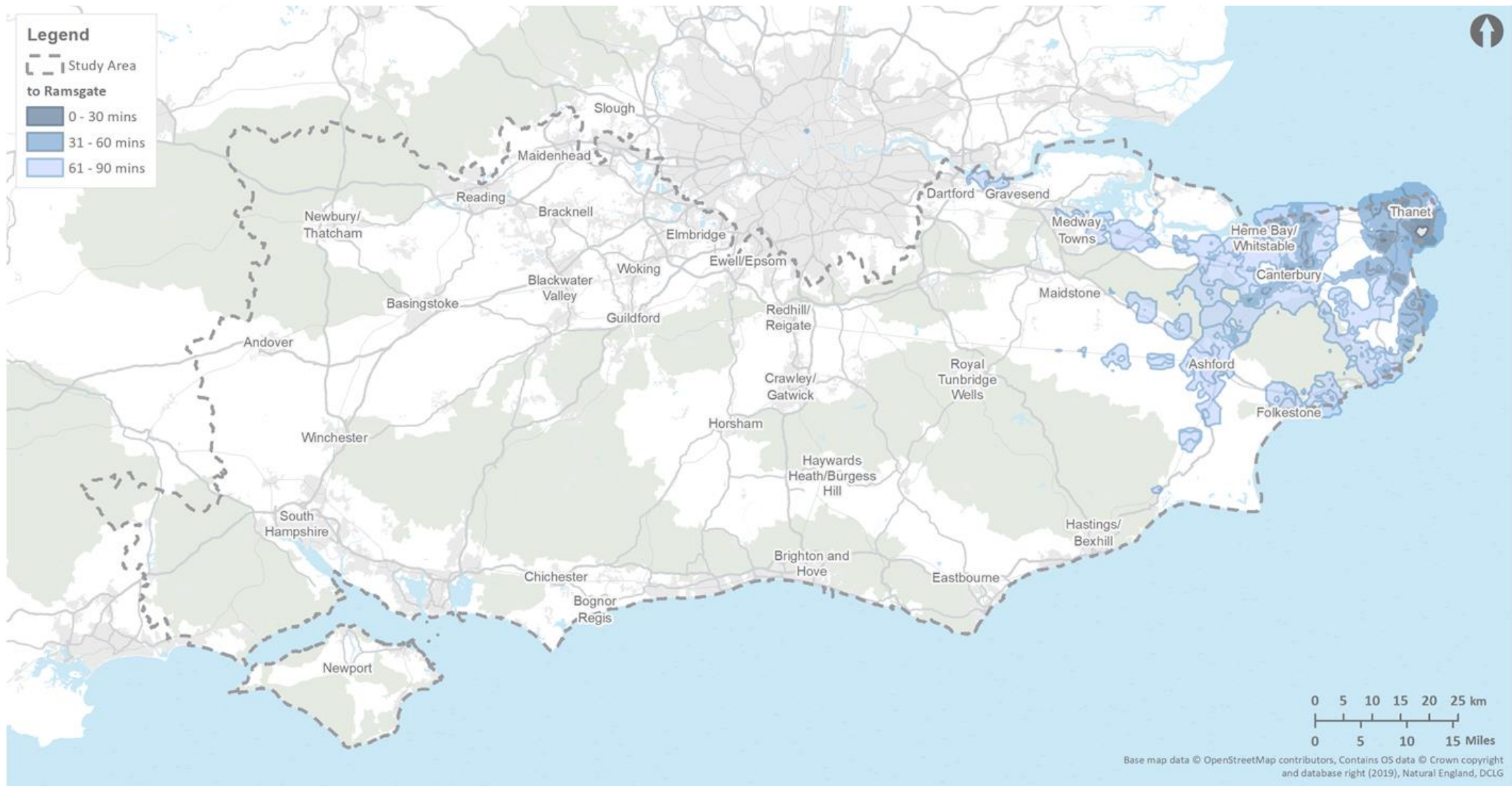




**Figure 1.25: Ashford Public Transport Catchments**



**Figure 1.26: Thanet Public Transport Catchments**





# Part 1g

## Travel To Work Analysis

# Travel To Work Analysis

## Travel To Work Flows

**There are significant east – west flows within the South East’s largest Built Up Areas, including Solent and Sussex Coast.**

**Figures 1.28 – 1.31** show the largest Travel To Work Flows (sources from the 2011 Census) between the Major Economic Hubs in the South East. These include:

- Between Major Economic Hubs excluding South Hampshire and London (**Figure 1.27**);
- Between Major Economic Hubs and Greater London (**Figure 1.28**);
- Between Southampton and Portsmouth and neighbouring areas (**Figure 1.29**);
- Within the Southampton and Portsmouth Built Up Areas (**Figure 1.30**); and
- Within and round the Brighton and Hove and Worthing Built Up Areas (**Figure 1.31**).

While these flows focus on trips to and/from work, they illustrate some of the pressures on transport networks during peak hours.

The figures above highlight significant east – west flows within the largest conurbations in the South East. They also illustrate significant flows to and from London, including outer London boroughs such as Croydon.

## Public Transport Provision

**Public transport provision for the largest Travel To Work flows in the Outer Orbital Area’s largest conurbations is poor.**

**Figure 1.32** presents the largest Travel To Work Flows presented in Figures 1.28 – 1.31. The colours of the arrows represent Steer’s assessment of the quality of public transport options serving each flow. This was determined by comparing journey times for car to public transport options. Flows with competitive public transport journey times are shown as having a “good” assessment, and those with much longer public transport journey times are shown as “poor”.

**Figure 1.32** clearly shows the public transport offer for Travel To Work flows within the Outer Orbital Area’s largest conurbations is poor. In general, the public transport offer compares poorly to provision for radial flows to/from London. This suggests there is are significant opportunities to grow public transport patronage in these areas through improving public transport provision.

This supports the case for significant interventions in public transport in the Solent and Sussex Coast Built Up Areas.

## Travel To Work Catchments

**Travel To Work Catchment areas tend to reflect the geography and quality of the transport networks that serve them.**

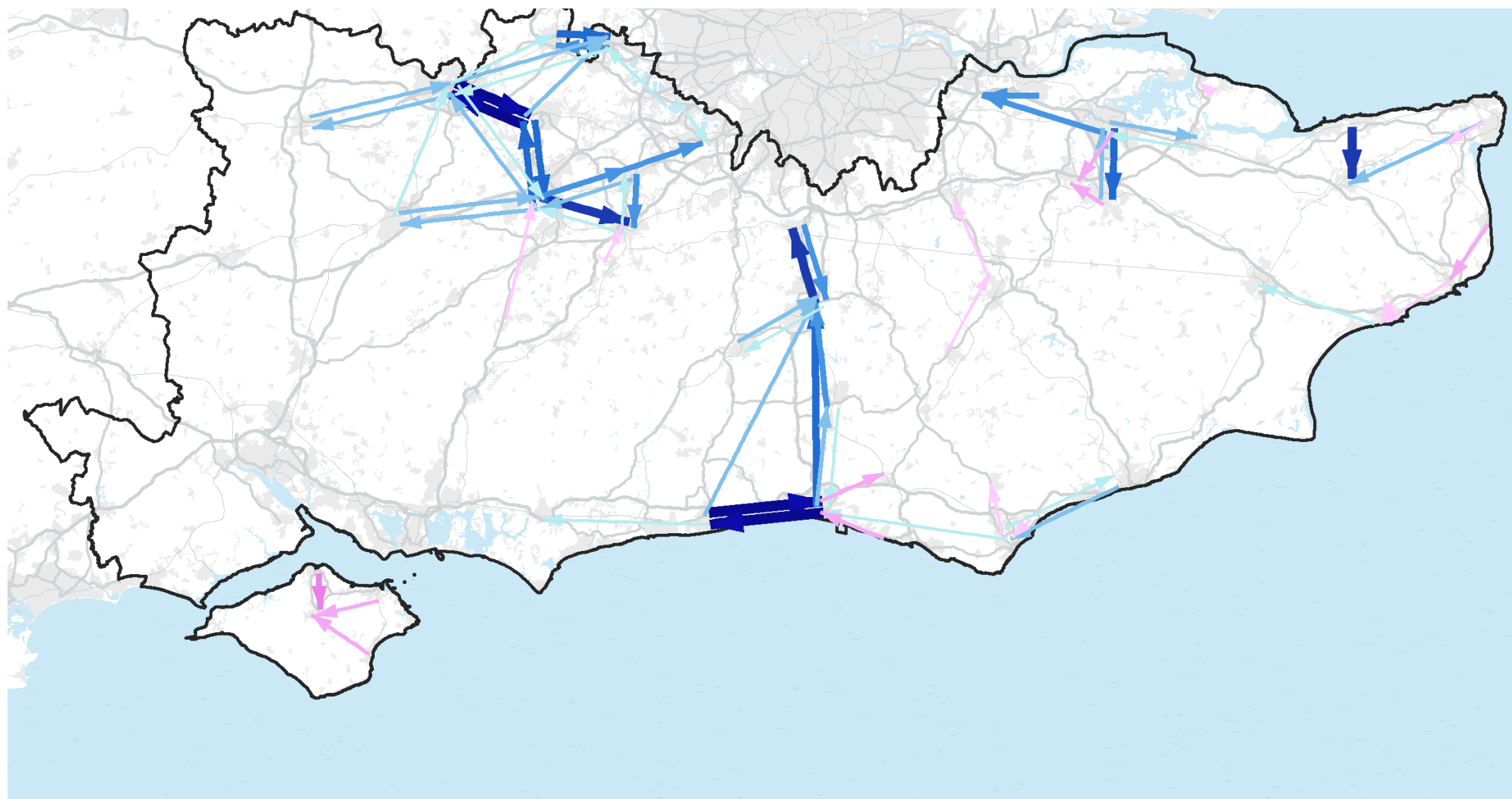
**Figures 1.33 – 1.43** show the catchment areas for the Outer Orbital Areas Major Economic Hubs. This shows output areas with ten or more journeys to/from the hubs on a typical working day. These include:

- Southampton (**Figure 1.33**);
- Portsmouth (**Figure 1.34**);
- Chichester (**Figure 1.35**);
- Bognor Regis (**Figure 1.36**);
- Worthing (**Figure 1.37**);
- Brighton (**Figure 1.38**);
- Eastbourne (**Figure 1.39**);
- Hastings (**Figure 1.40**);
- Ashford (**Figure 1.41**);
- Folkestone (**Figure 1.42**); and
- Thanet (**Figure 1.43**).

The sizes and shapes of these catchment areas vary and seem to align with the quality of public transport and highways that serve them (e.g. Ashford’s catchment is larger than Thanet’s).



**Figure 1.27: South East largest Travel To Work flows (Census, 2011) – excluding South Hampshire and flows to/from London**



TfSE area  
 Flows of greater than 1,500 journeys between Major Economic Hubs and other built up areas  
→ 1,500 - 2,000    → 4,001 - 5,000  
→ 2,001 - 3,000    → 5,001 - 6,000  
→ 3,001 - 4,000    → Greater than 6,000

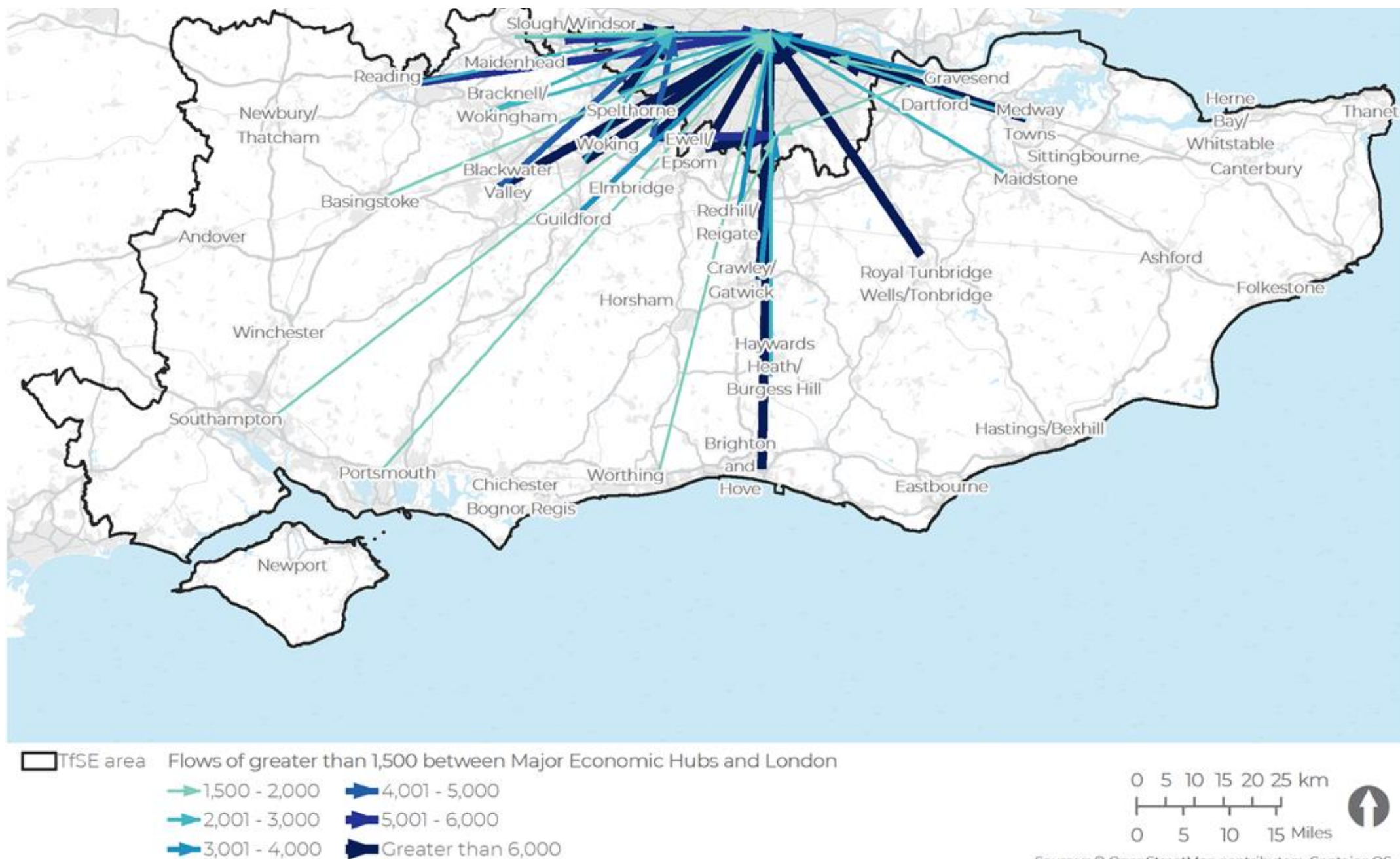
Flows of greater than 1,500 journeys between Major Economic Hubs  
→ 1,500 - 2,000    → 4,001 - 5,000  
→ 2,001 - 3,000    → 5,001 - 6,000  
→ 3,001 - 4,000    → Greater than 6,000  
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0 5 10 15 20 25 km  
 0 5 10 15 Miles



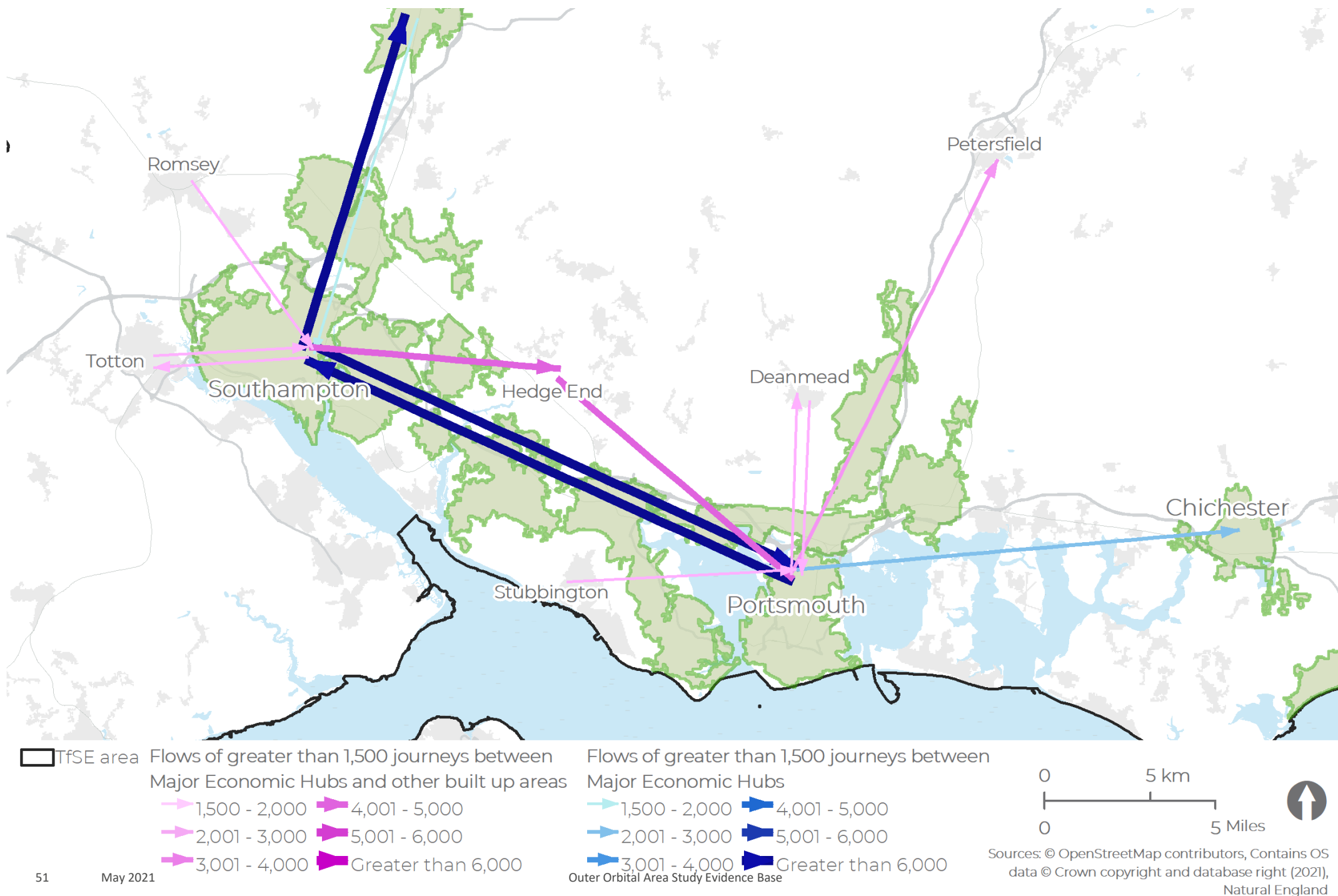
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**Figure 1.28: South East largest Travel To Work flows to London (Census, 2011)**

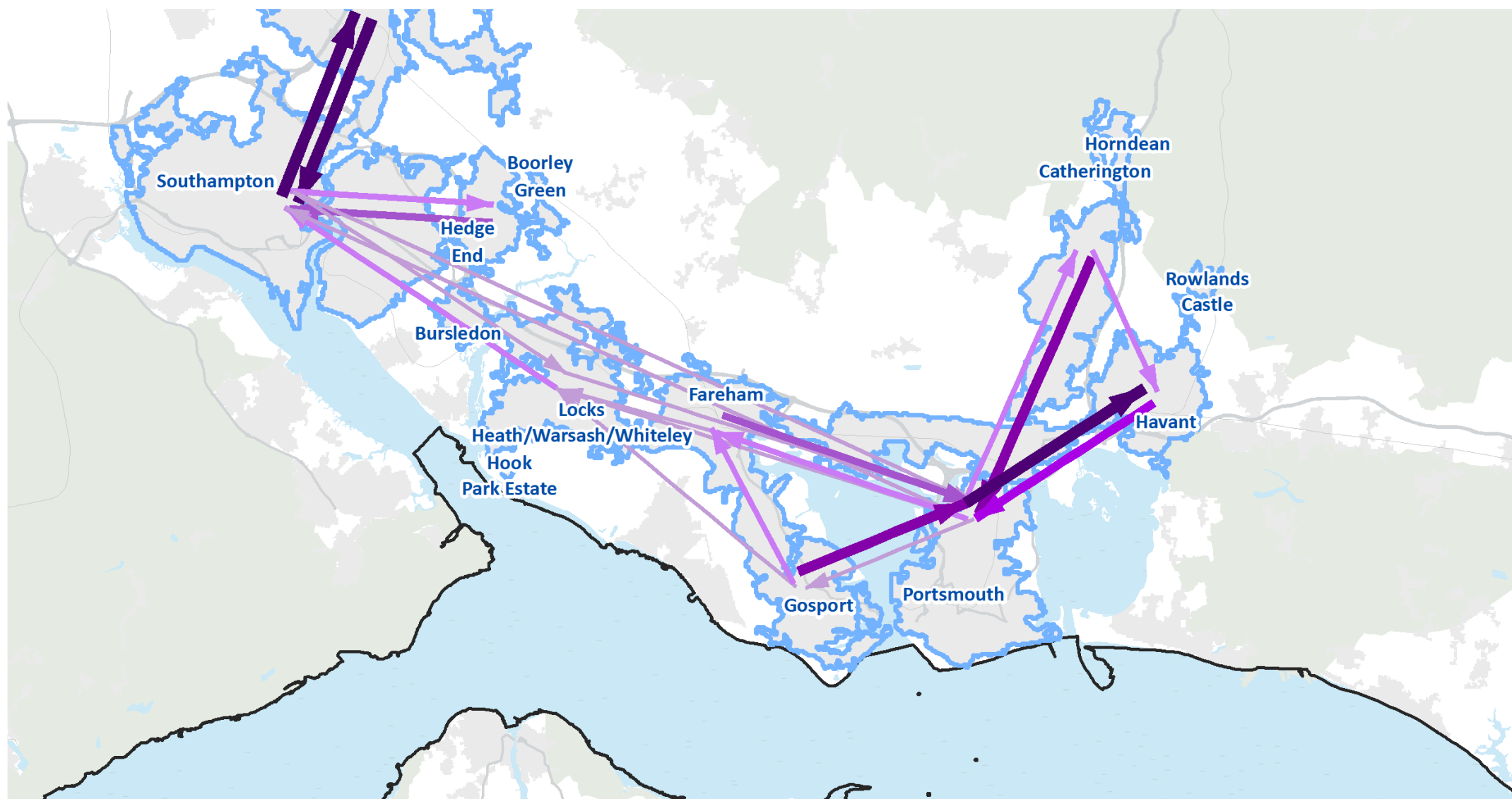


Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2019), Natural England

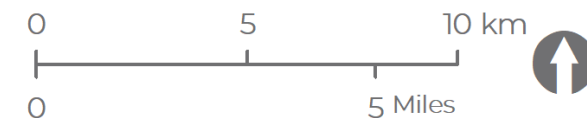
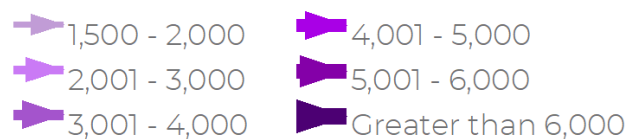
**Figure 1.29: Southampton and Portsmouth largest Travel To Work flows (Census, 2011)**



**Figure 1.30: South Hampshire Built Up Area largest Travel To Work flows (Census, 2011)**



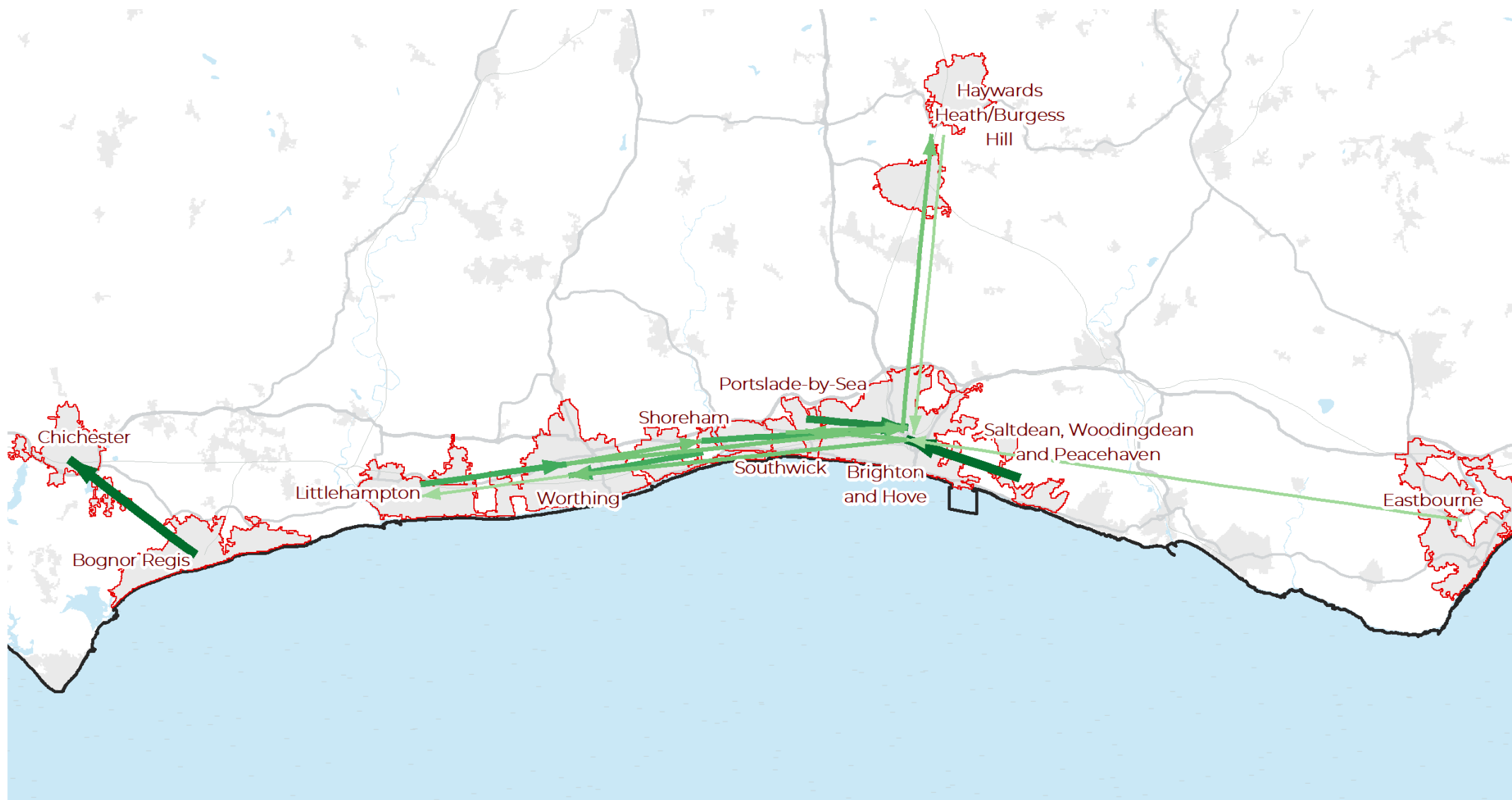
TfSE area  
 Flows of greater than 1,500 between Southampton and Portsmouth built up area subdivisions




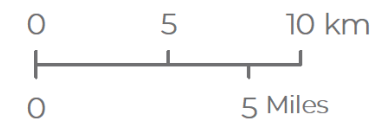
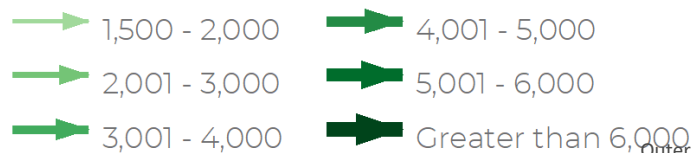
Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2021), Natural England



**Figure 1.31: Sussex Coast largest Travel To Work flows (Census, 2011)**

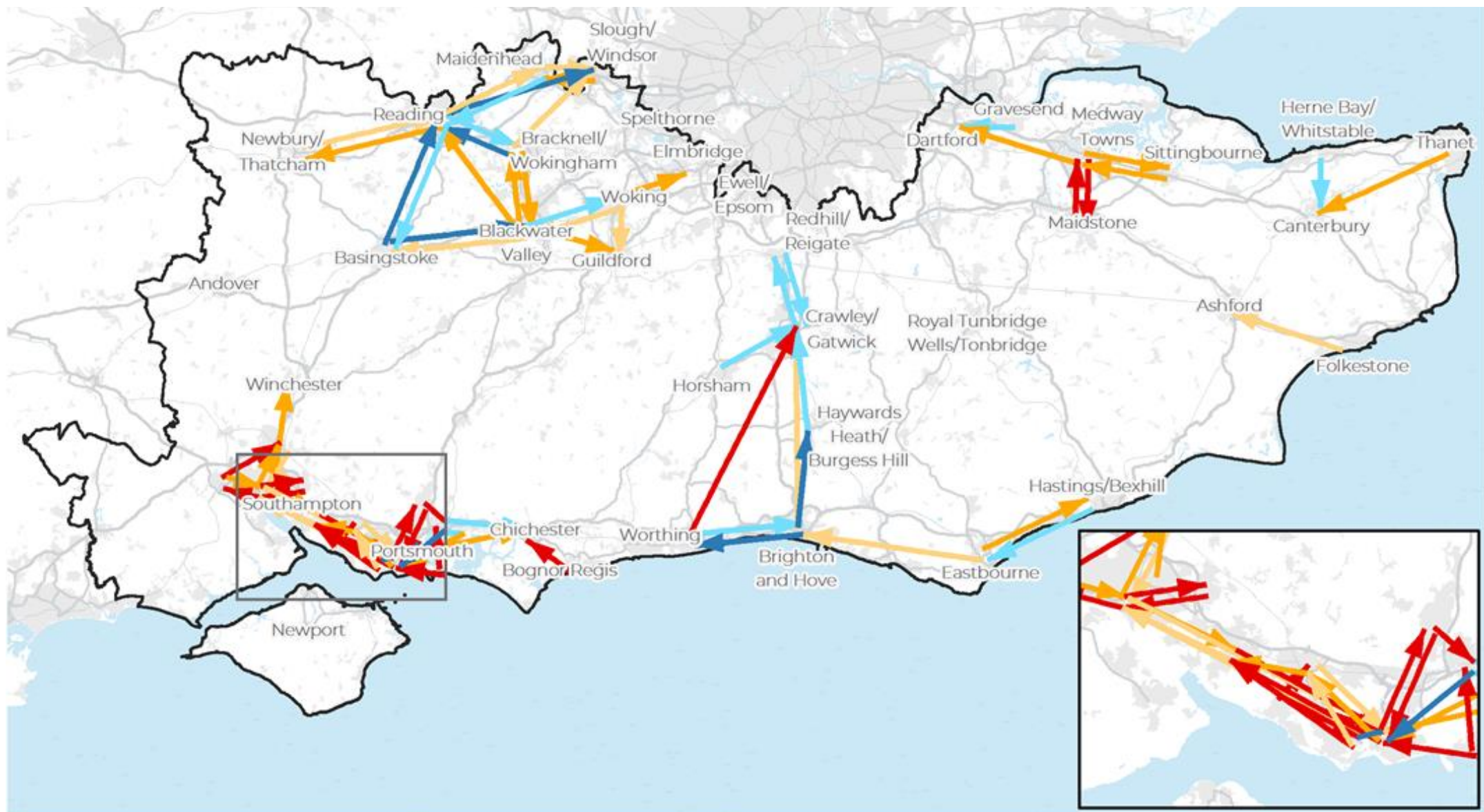


 TfSE area    Flows of greater than 1,500 between Brighton, Worthing and built up areas



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2021), Natural England

**Figure 1.32: Assessment of Public Transport provision on largest Travel To Work Flows (Steer Analysis, 2021)**



TfSE area

**Weighted assessment**

- ➔ Good
- ➔ Good/Moderate
- ➔ Moderate
- ➔ Moderate/Poor
- ➔ Poor

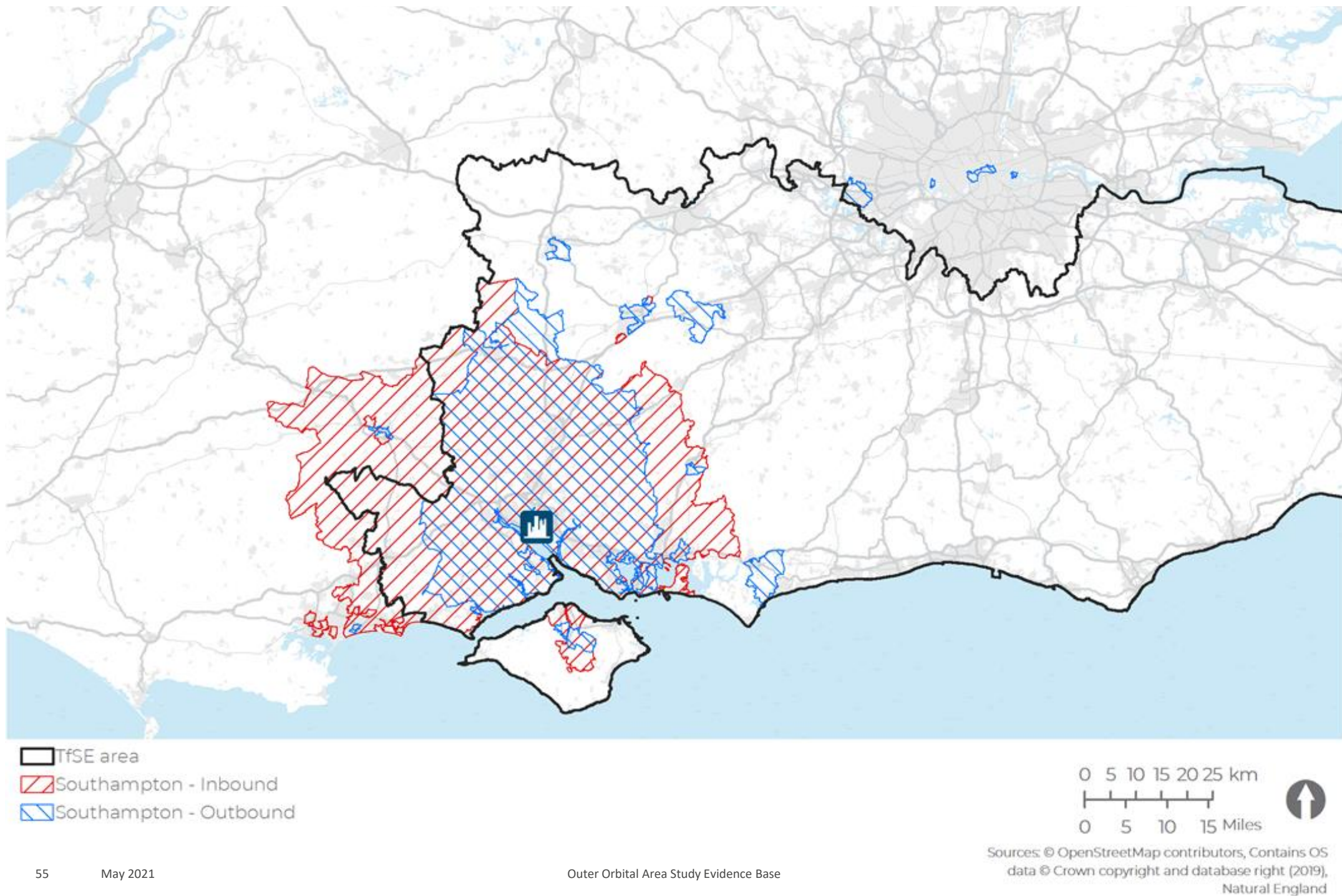
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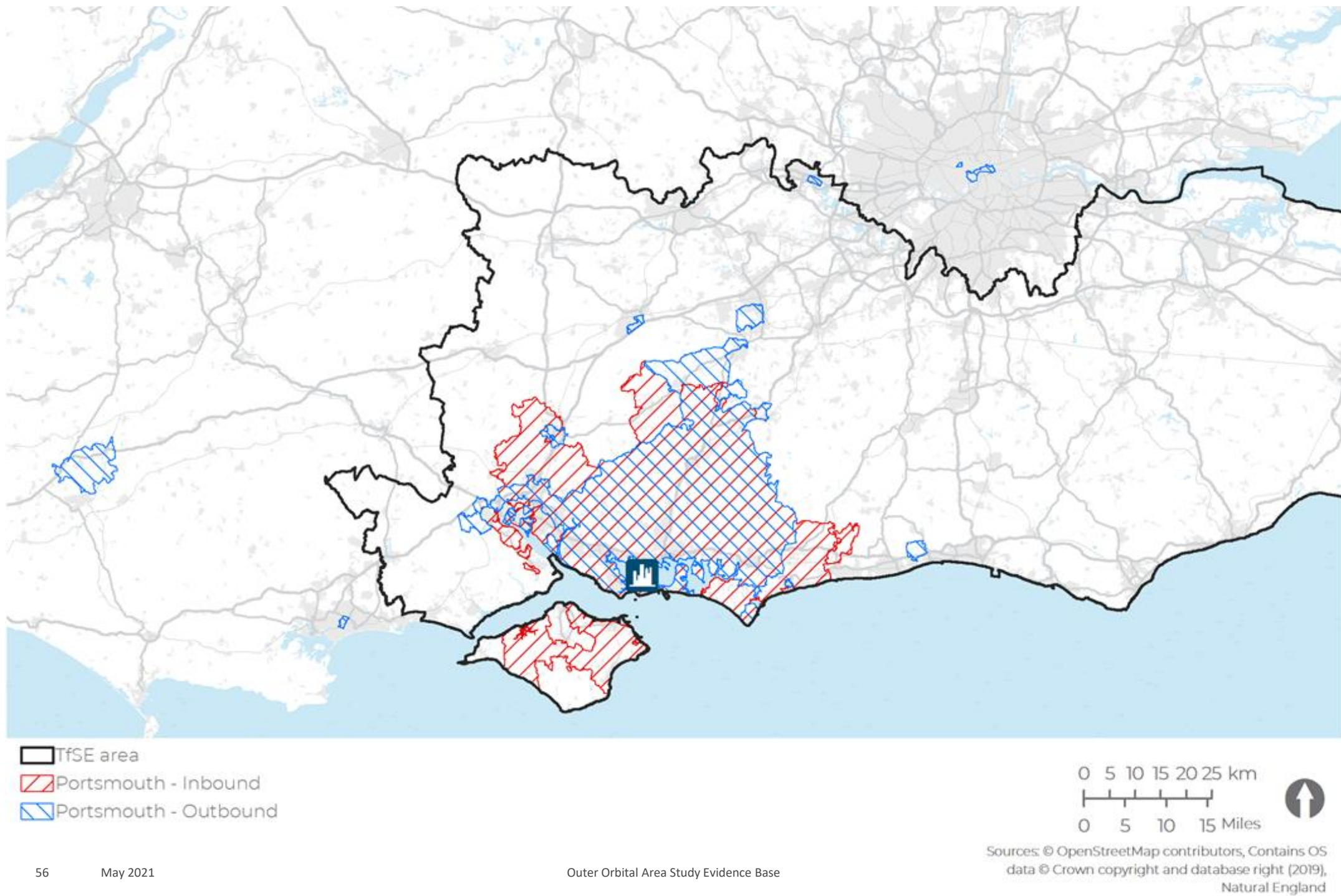
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**Figure 1.33: Southampton Travel to Work catchment area (Census, 2011)**

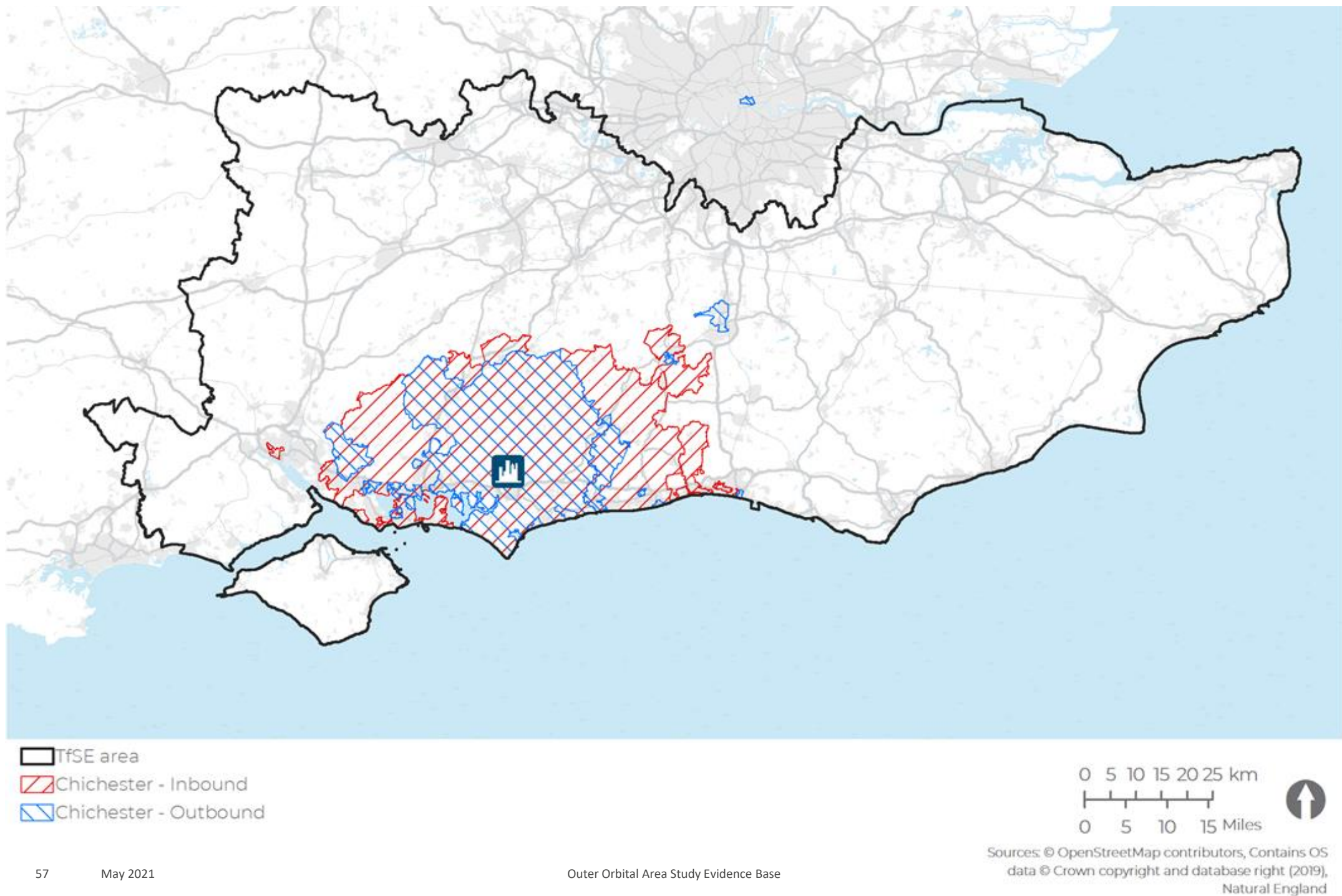


**Figure 1.34:** Portsmouth Travel to Work catchment area (Census, 2011)

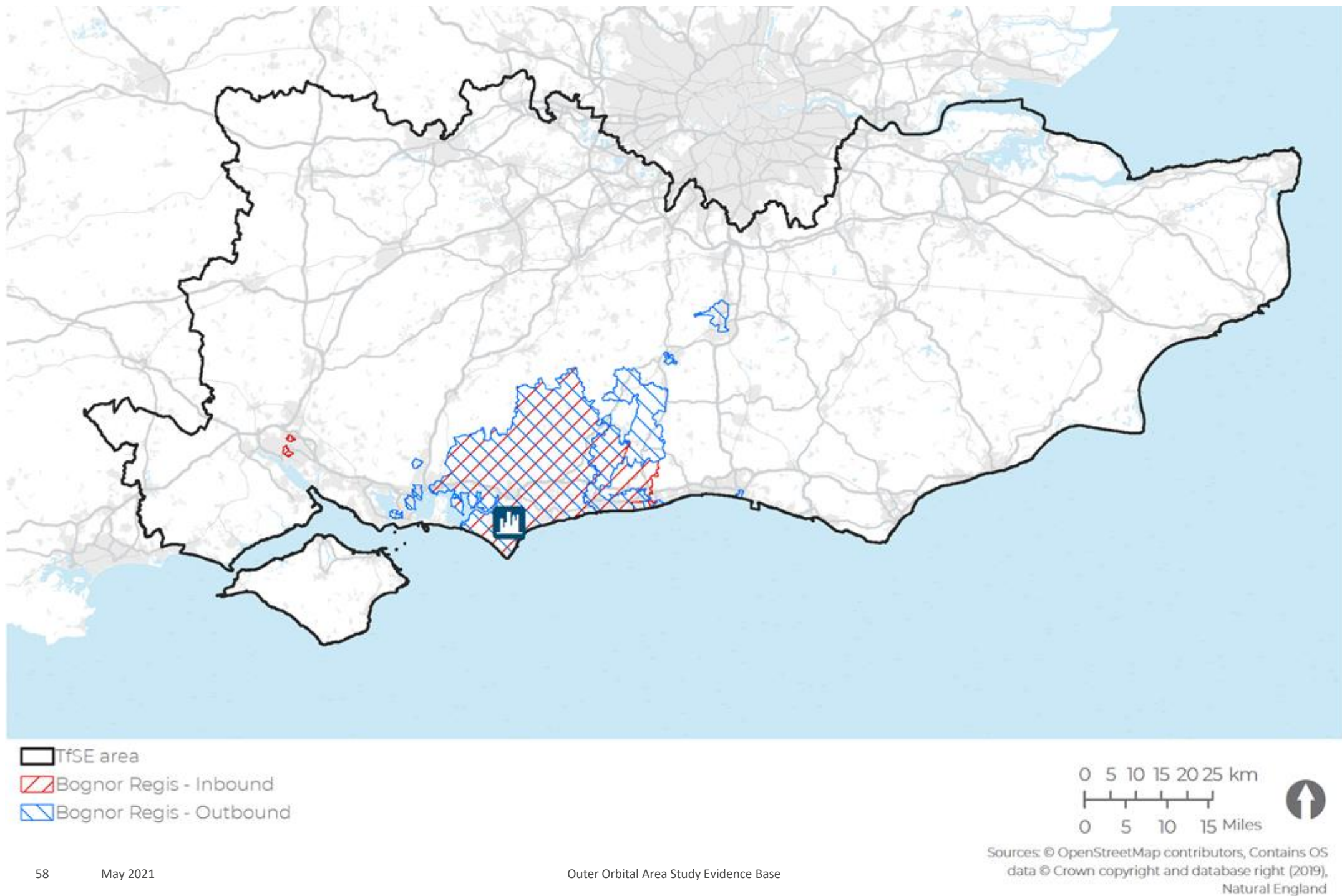




**Figure 1.35: Chichester Travel to Work catchment area (Census, 2011)**

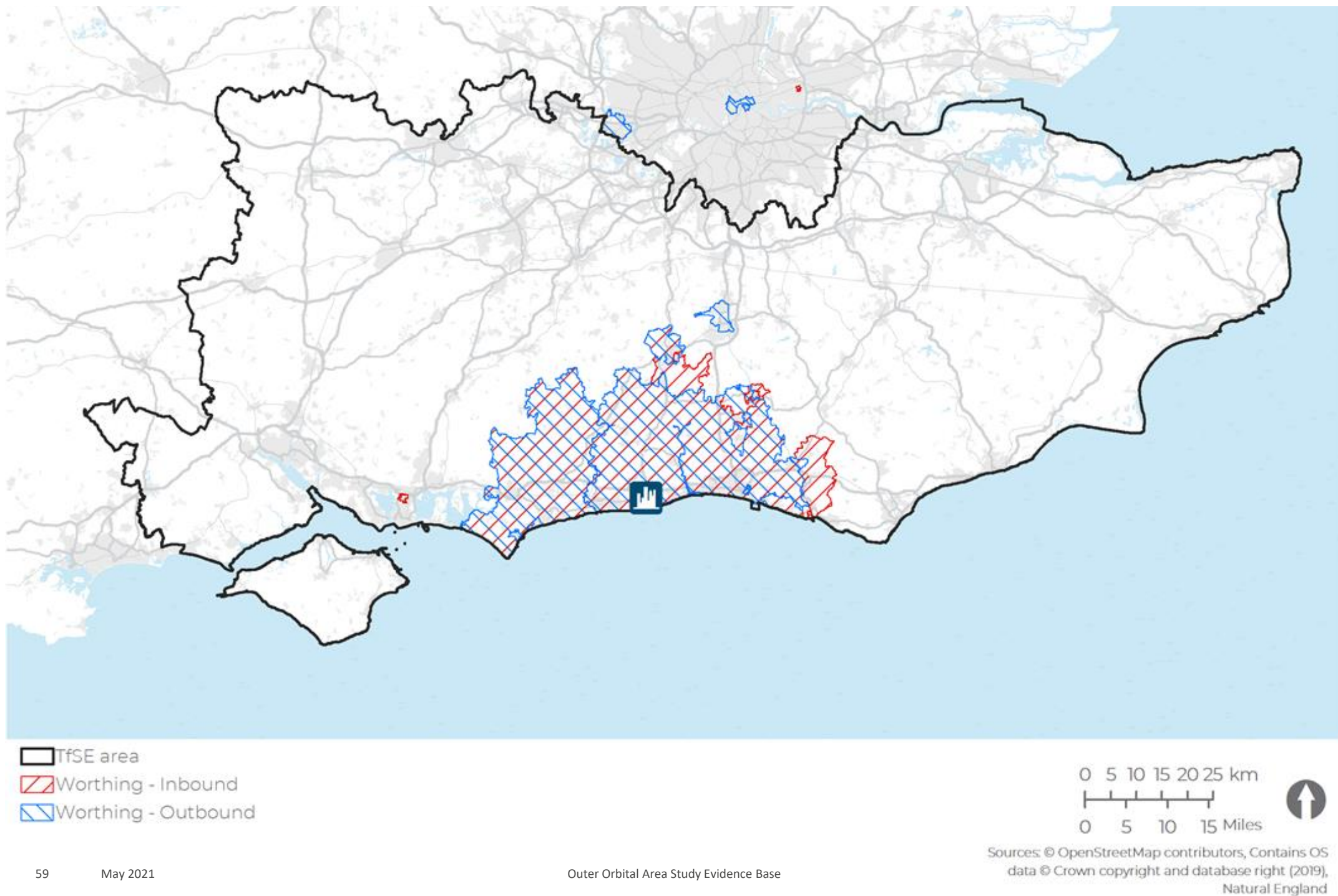


**Figure 1.36:** Bognor Regis Travel to Work catchment area (Census, 2011)

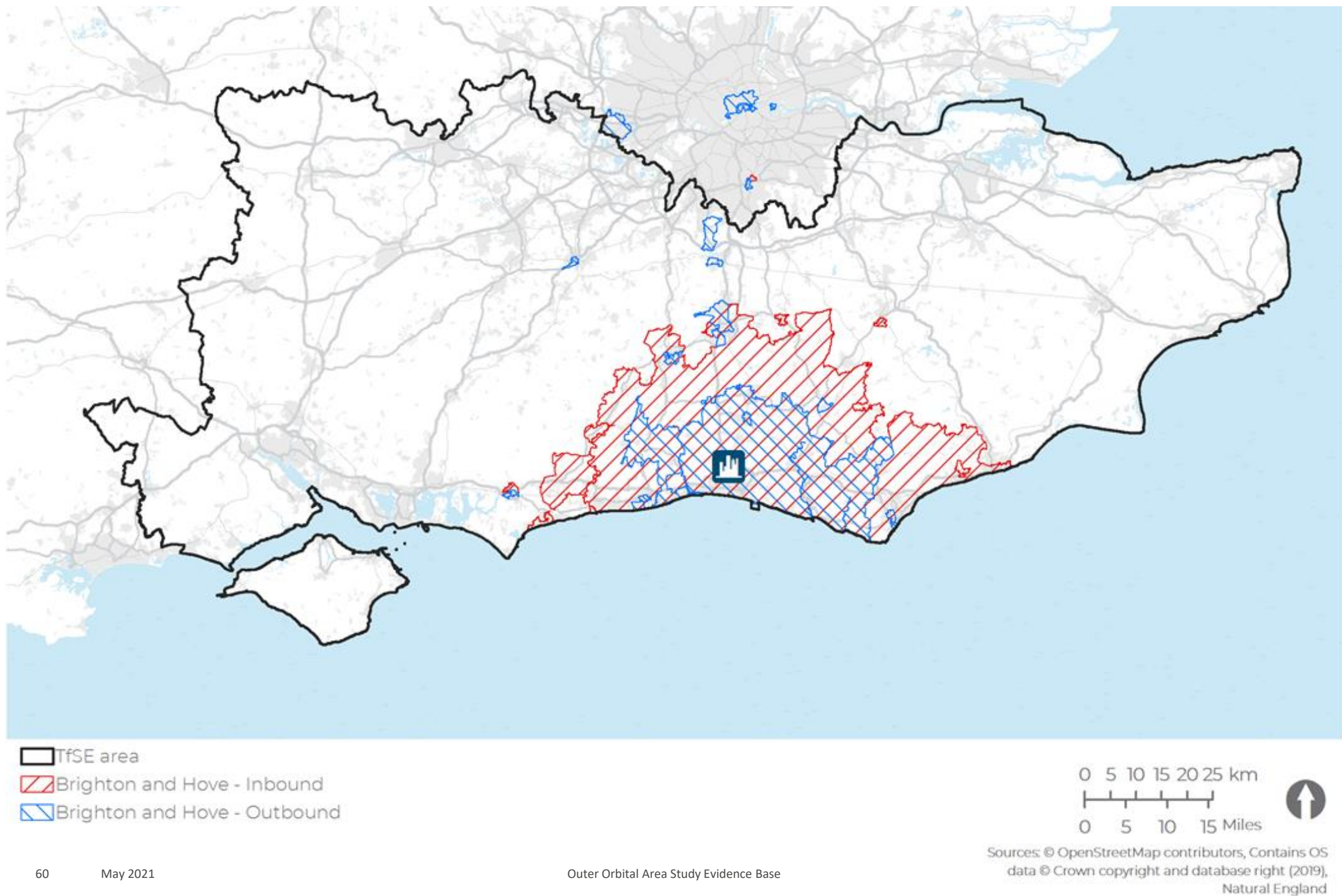




**Figure 1.37: Worthing Travel to Work catchment area (Census, 2011)**

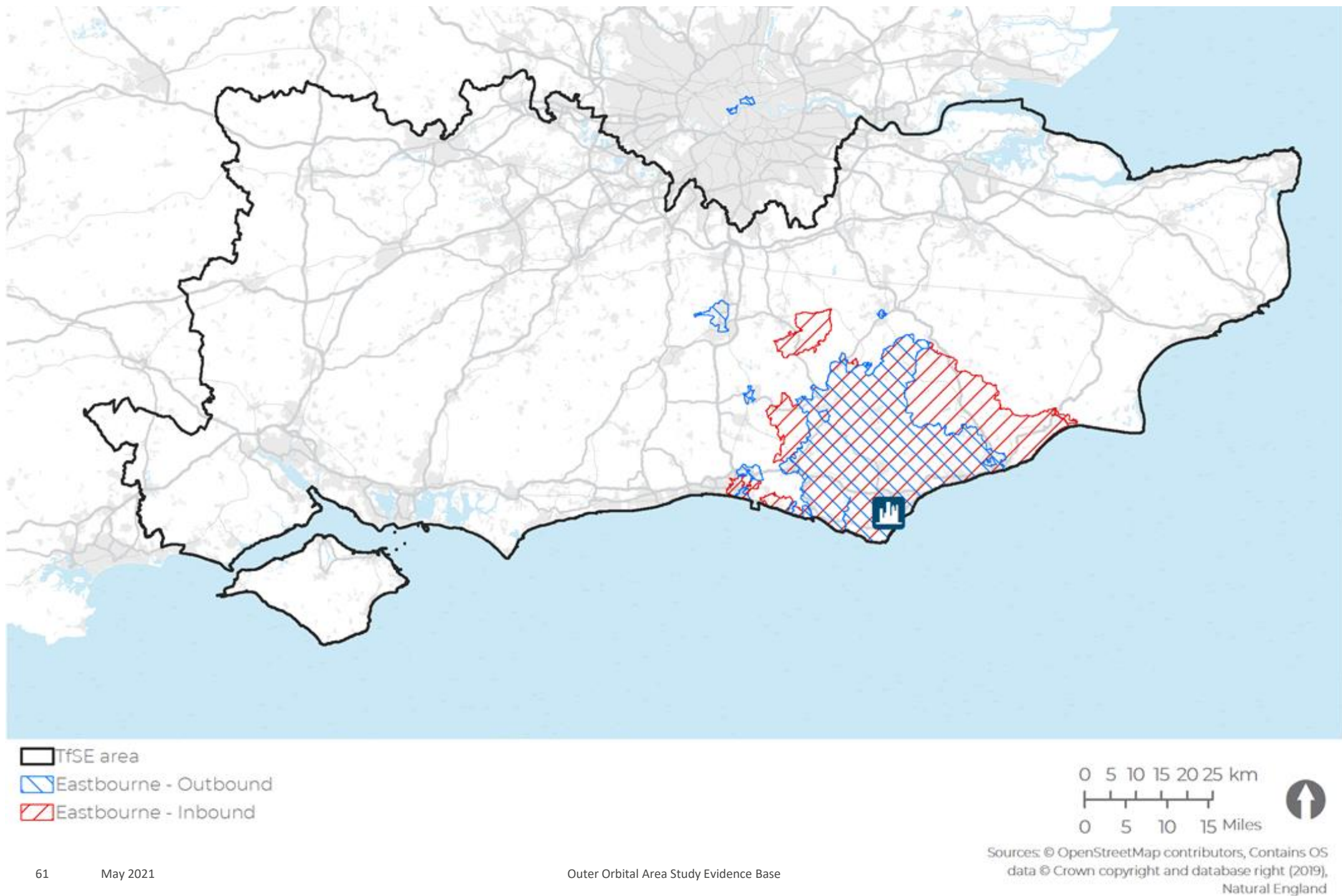


**Figure 1.38:** Brighton and Hove Travel to Work catchment area (Census, 2011)

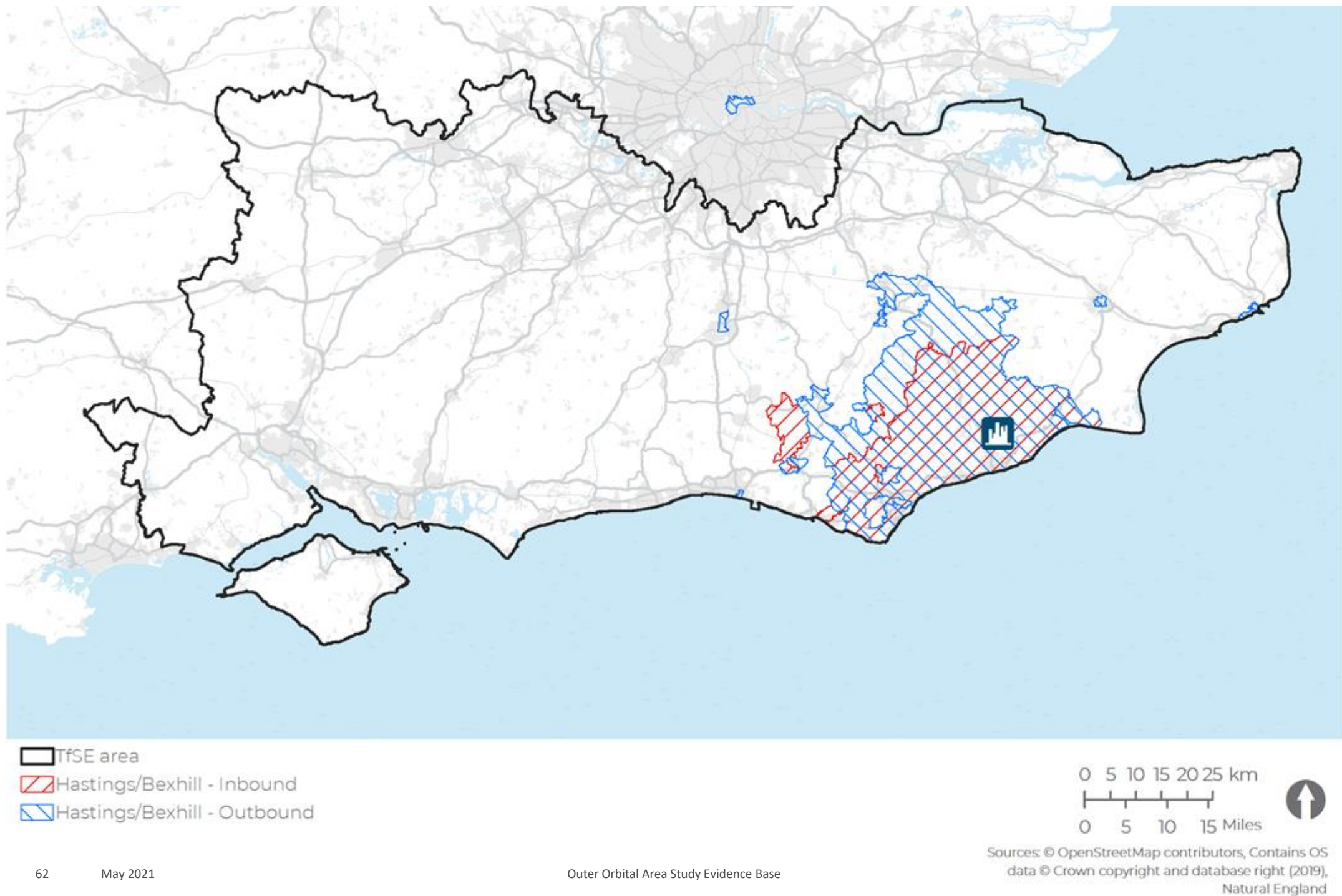




**Figure 1.39:** Eastbourne Travel to Work catchment area (Census, 2011)

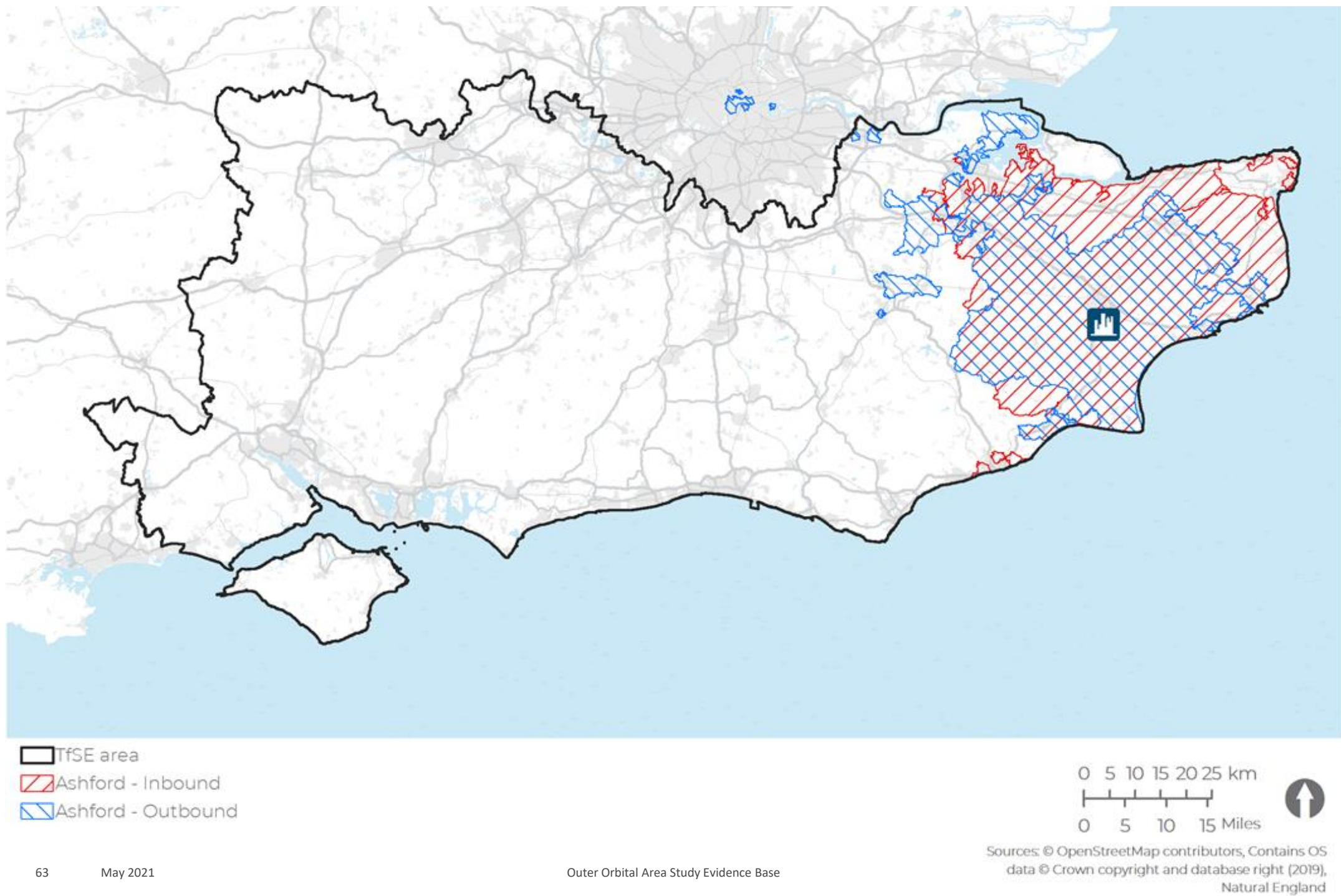


**Figure 1.40:** Hastings and Bexhill Travel to Work catchment area (Census, 2011)

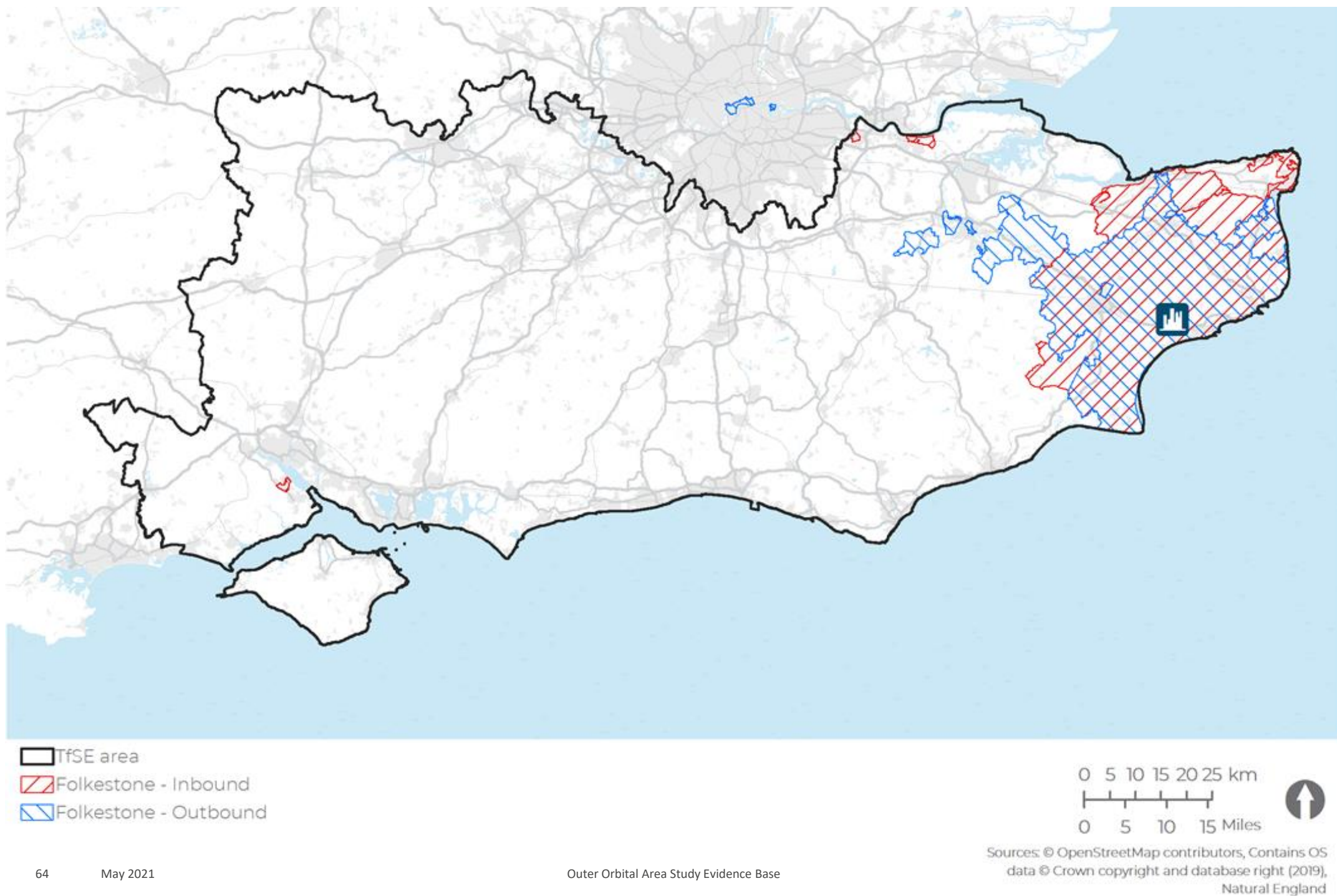




**Figure 1.41:** Ashford Travel to Work catchment area (Census, 2011)

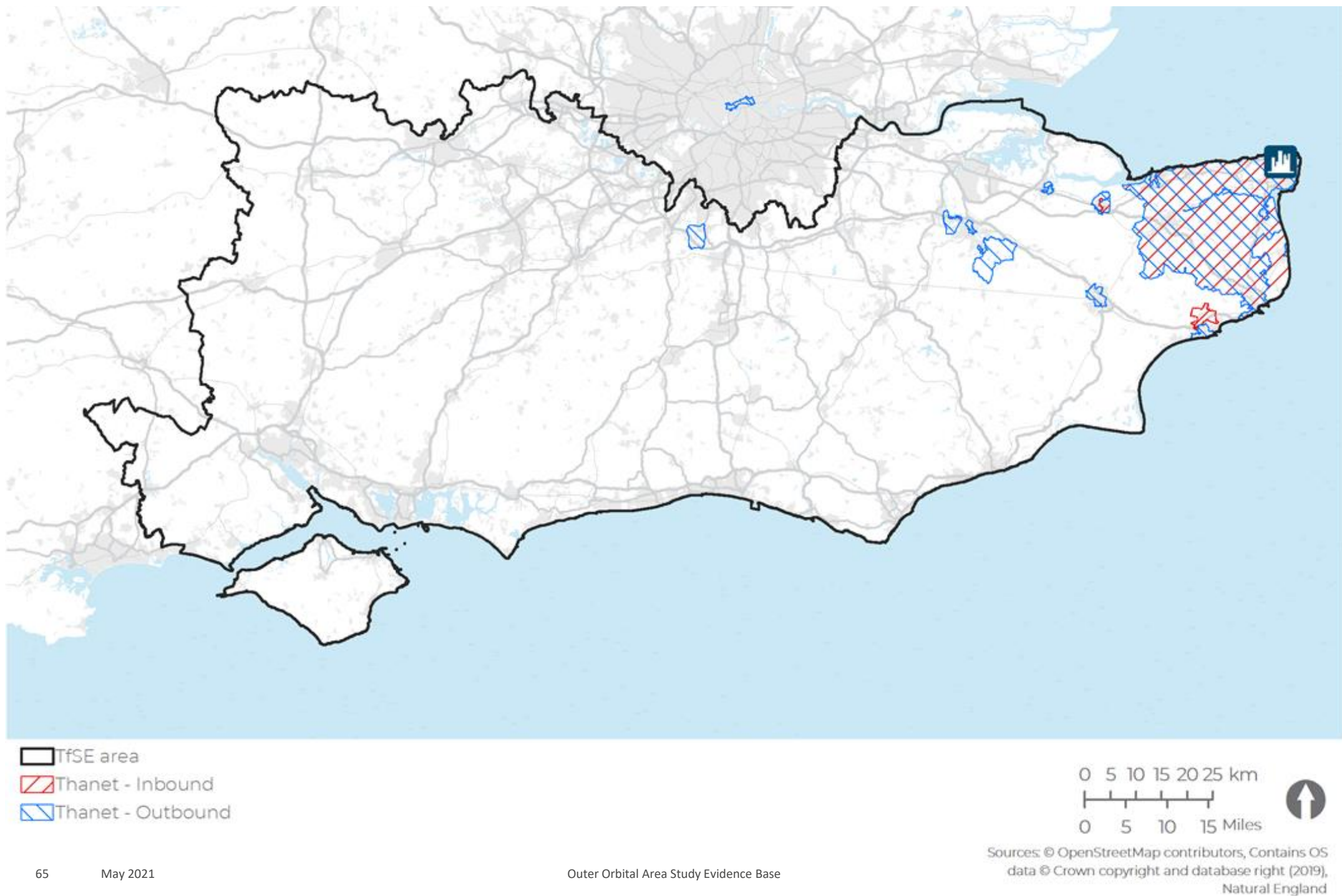


**Figure 1.42: Folkestone Travel to Work catchment area (Census, 2011)**





**Figure 1.43:** Thanet Travel to Work catchment area (Census, 2011)





## Part 2

# Future Context



## Part 2a

# Demographic Projections

# Demographic Projections

## Housing

**The Outer Orbital area is expected to accommodate significant housing growth in the next local plan period (up to 2025).**

**Figures 2.1 and 2.2** show the location of the largest housing growth sites in the Outer Orbital area. This is based on estimates provided by Planning Authorities in 2019 (Local Plans or their draft equivalents), which, in many instances, rely transport and other infrastructure being delivered. This map shows that future housing growth is expected to be concentrated around:

- South Hampshire (Southampton and Portsmouth);
- West Sussex Coastal areas between (and including) Chichester and Worthing;
- Burgess Hill/Hassocks;
- Ashford; and
- Thanet.

Much of this growth will occur in peri-urban settings, so it will be critical that developments are supported with active travel and public transport connections. Doing so will ensure that individuals can travel sustainably to their places of work and residence without relying on private transport.

## Employment

**Employment growth is expected to be more concentrated in the city centres of the larger urban areas.**

**Figure 2.3** shows the location of the largest employment growth sites in the Outer Orbital area. This map shows that employment growth is expected to focus on the South Hampshire, Brighton and Hove, Hastings and Ashford areas.

In South Hampshire and Brighton and Hove, employment growth is expected to be focussed in City Centres. This is because many of the higher growth industrial sectors (e.g. financial services) have a preference for city locations.

In Ashford, on the other hand, it appears that most employment growth will occur on the urban periphery. This is partly driven by the availability of land in these places, as well as their specialist industries (e.g. logistics).

It will therefore be important to provide good public and healthy transport connections from these peripheral locations to city centres and transport hubs. This will ensure these cities enjoy economic prosperity and an increased quality of life for all residents.

## Risk of imbalance?

**There is a risk that any significant imbalance in housing and employment growth may cause unsustainable outcomes.**

These maps to show that housing development is expected to take place at several locations on the Outer Orbital corridor, while employment development is more concentrated in urban areas. There is a risk that created a spatial imbalance in housing and employment may generate more demand, particularly by the car.

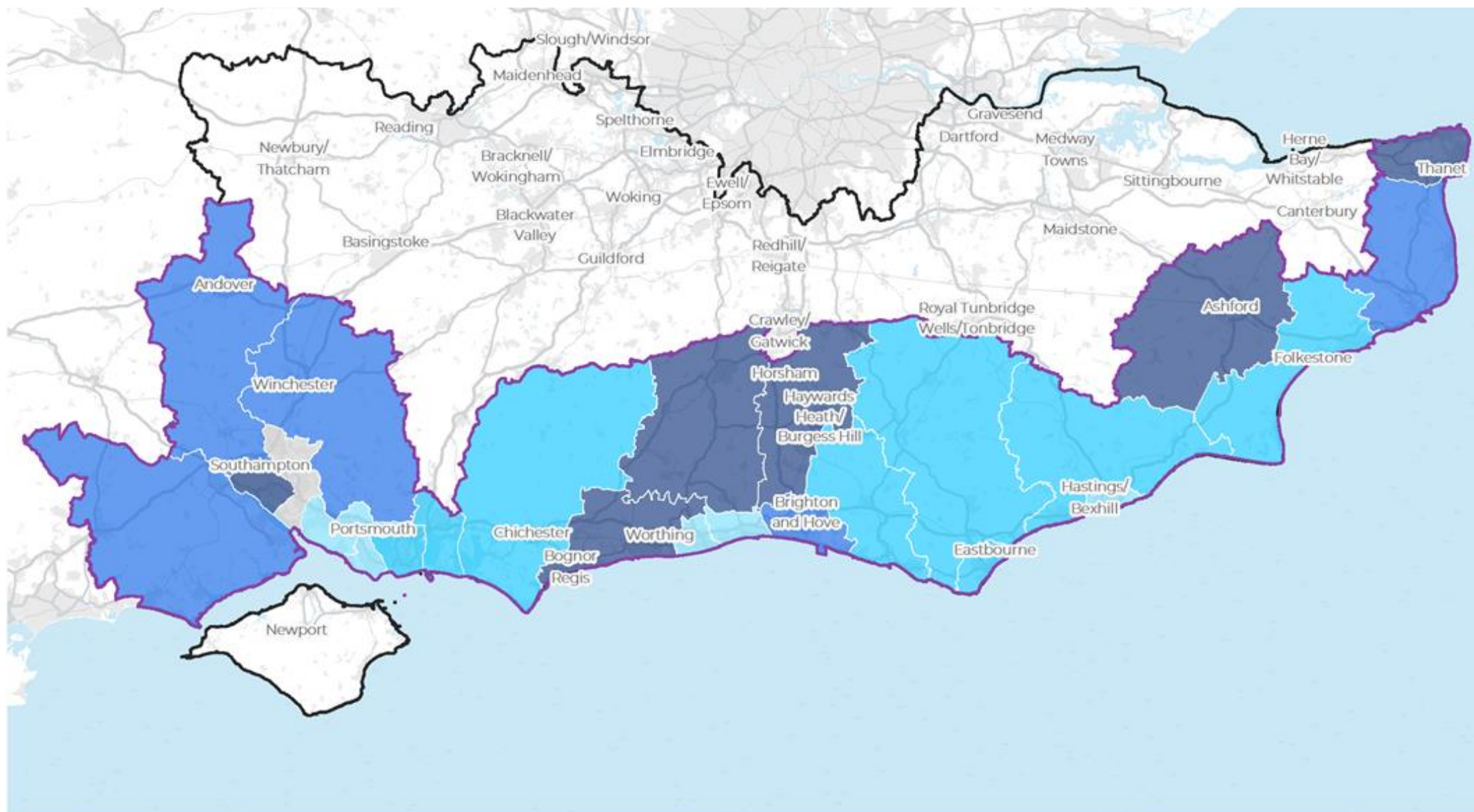
It is recognised that there is an acute need for housing in the Outer Orbital area (to ensure that housing is accessible and affordable) and that, given the environmental and physical constraints of the corridor, some areas will be better placed to absorb housing than others.

To promote more sustainable outcomes, it is recommended that:

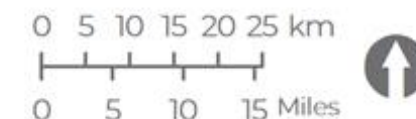
- Development is located near to urban centres and transport hubs to reduce the need to travel;
- New development includes mixed use areas to provide local shops and services and is developed to a suitable density/volume; &
- Developments are served by sustainable transport options (from the outset).



**Figure 2.1: Planned homes for the Outer Orbital area (Districts and Boroughs)**

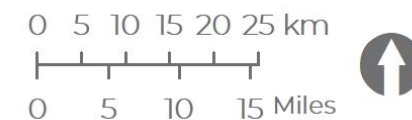
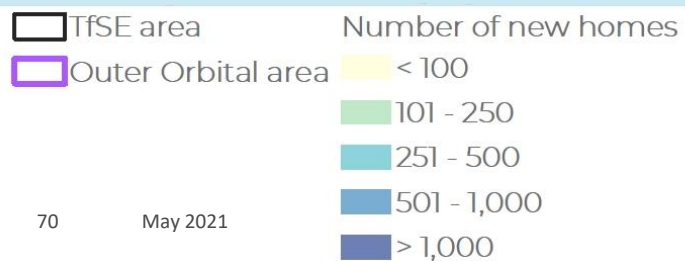
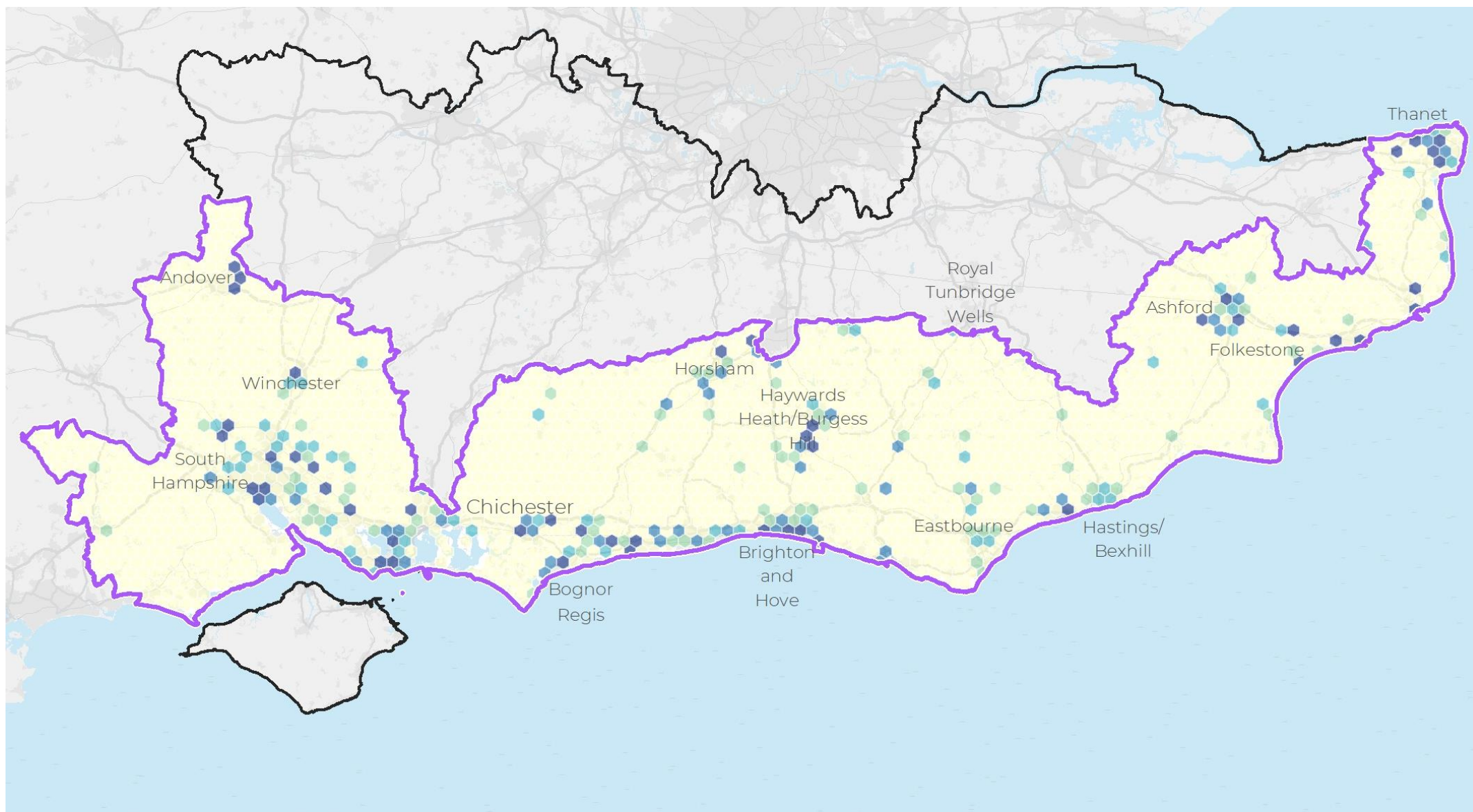


This data is sourced from MHCLG's local plans prototype tool : <https://local-plans-prototype.herokuapp.com/>. Local plan housing requirement data reflects MHCLG understanding of adopted plans as at end January 2021. The data is experimental, updated monthly, and subject to limited validation. It therefore shouldn't be relied upon as a reliable 'real-time' representation of local plan progress or content.



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2021), Natural England

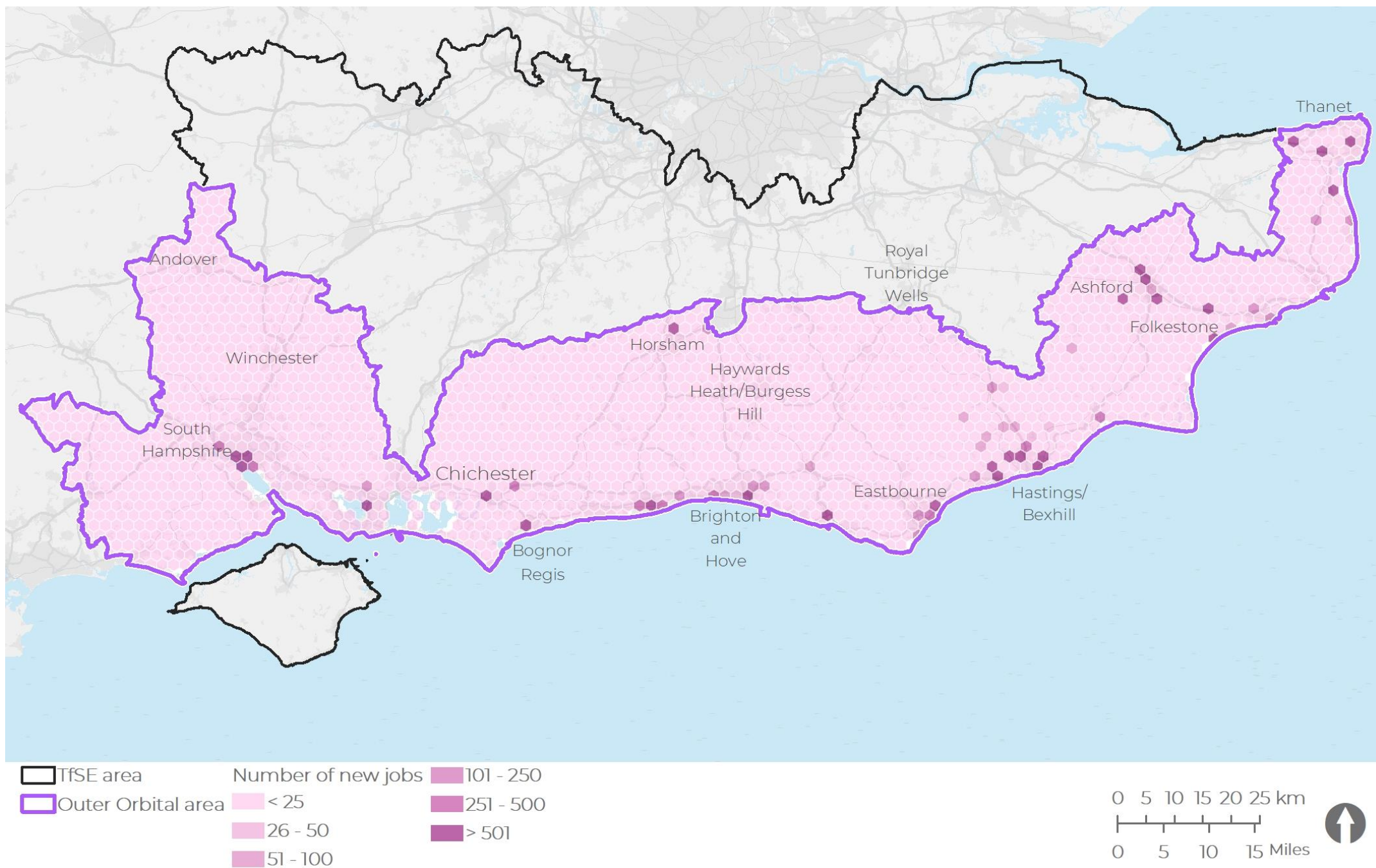
**Figure 2.2: Planned homes for the Outer Orbital area (Detailed)**



Sources: © OpenStreetMap contributors, Contains OS data © Crown copyright and database right (2019), Natural England. Data provided by local authorities.



**Figure 2.3: New Jobs in the Outer Orbital area**







## Part 2b

# Scenario Forecasts

# Scenario Forecasts

## TfSE Transport Strategy

**To support the development of Strategy for South East England, in 2018/19 TfSE developed future scenarios for the area.**

The scenarios were designed to help TfSE understand how different routes for the development of the South East's economy and population might impact transport outcomes from 2020 to 2050. They were developed by combining several "axes of uncertainty", which describe the plausible outcomes of uncertain trends. These trends included the rate of adoption of emerging technology, changes in attitudes towards the environment, and the development of target industrial sectors in the economy. Each scenario was modelled using a land use and transport model called SEELUM. The outcomes of modelling each scenario were compared to a Central Case ("Business As Usual"), which was developed by modelling the impacts of the Department for Transport's National Trip End Model on the South East's economy and transport networks. Further adjustments have been made to reflect the impact of COVID-19 on the South East.

The modelling results were used to develop a **Preferred Scenario** for the future of the South East: "A Sustainable Route to Growth".

## Socioeconomic Outcomes

**The Preferred Scenario delivers more sustainable travel outcomes than the Business As Usual (BAU) scenario.**

TFSE's Preferred Scenario envisages a focus on more sustainable transport modes and improved integrated transport and land use planned to promote more sustainable travel outcomes (e.g. fewer trips overall, and fewer trips by car). The results have been disaggregated for each area in TfSE's programme of area studies.

**Figure 2.4** shows projections for transport and socioeconomic indicators for a BAU scenario (modelled on current trends). **Figure 2.5** compares the modelled outcomes for the Preferred Scenario compared to the BAU scenario. These results show that the Preferred Scenario deliver:

- Higher population, employment, and GVA in the Outer Orbital area;
- More trips overall, (especially to London), but fewer trips by highways;
- Significantly more trips by rail and bus; and
- Significant more trips from London to the Outer Orbital area (but also more trips from the Outer Orbital area to London).

## Transport Demand

**The Preferred Scenario anticipates lower growth in highway demand than the Business As Usual scenario.**

However, it calls for a step change in public transport provision, including for the railway network. It also includes the widespread adoption of demand management policies, including road user charging.

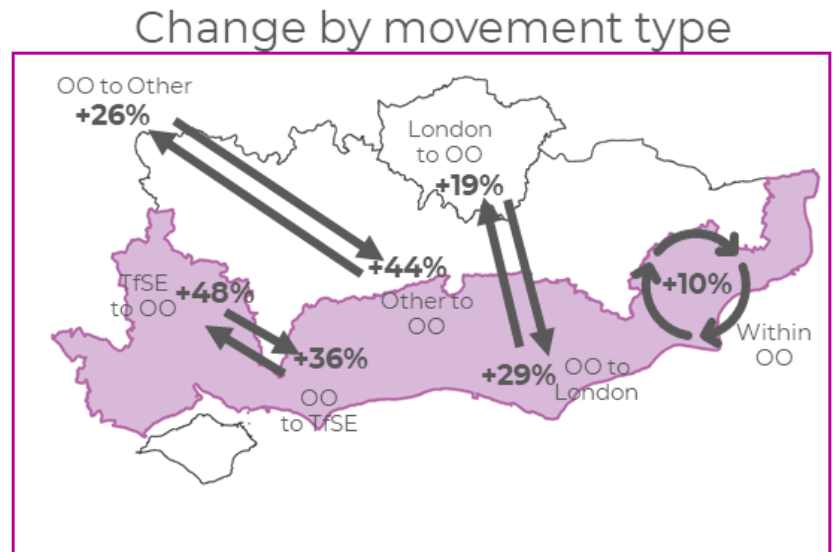
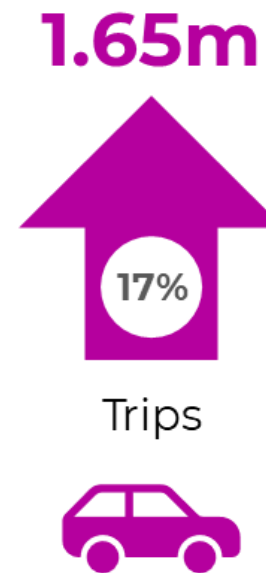
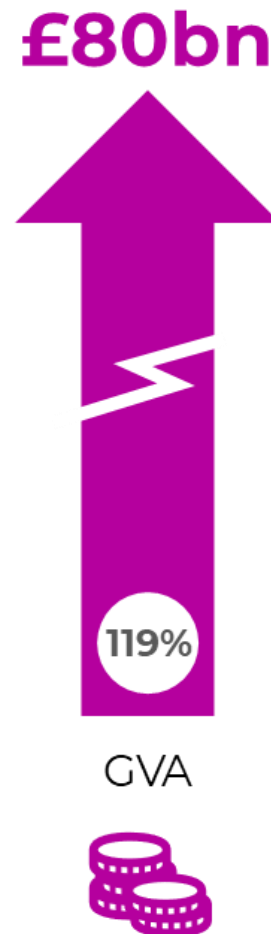
**Figure 2.6** shows the expected impact of the Preferred Scenario on highway demand. It generally points to less demand than the Business As Usual scenario, which suggests only targeted highways improvements will be required where there are particular local issues and/or growth hotspots.

**Figure 2.7** shows the expected impact of significant increase in rail demand on the rail network. It suggests that additional capacity will be required on all corridors, including the east – west corridor served by the East and West Coastway lines.

The model does not provide map outputs for bus or local transit, but the overall increase in forecast demand for bus suggests there will be a need for local interventions to support this growth, which could include mass transit systems such as Bus Rapid Transit.

**Figure 2.4: Business As Usual Growth projections (2050 compared to today)**

Change by key indicator  
(Change from today to 2050)

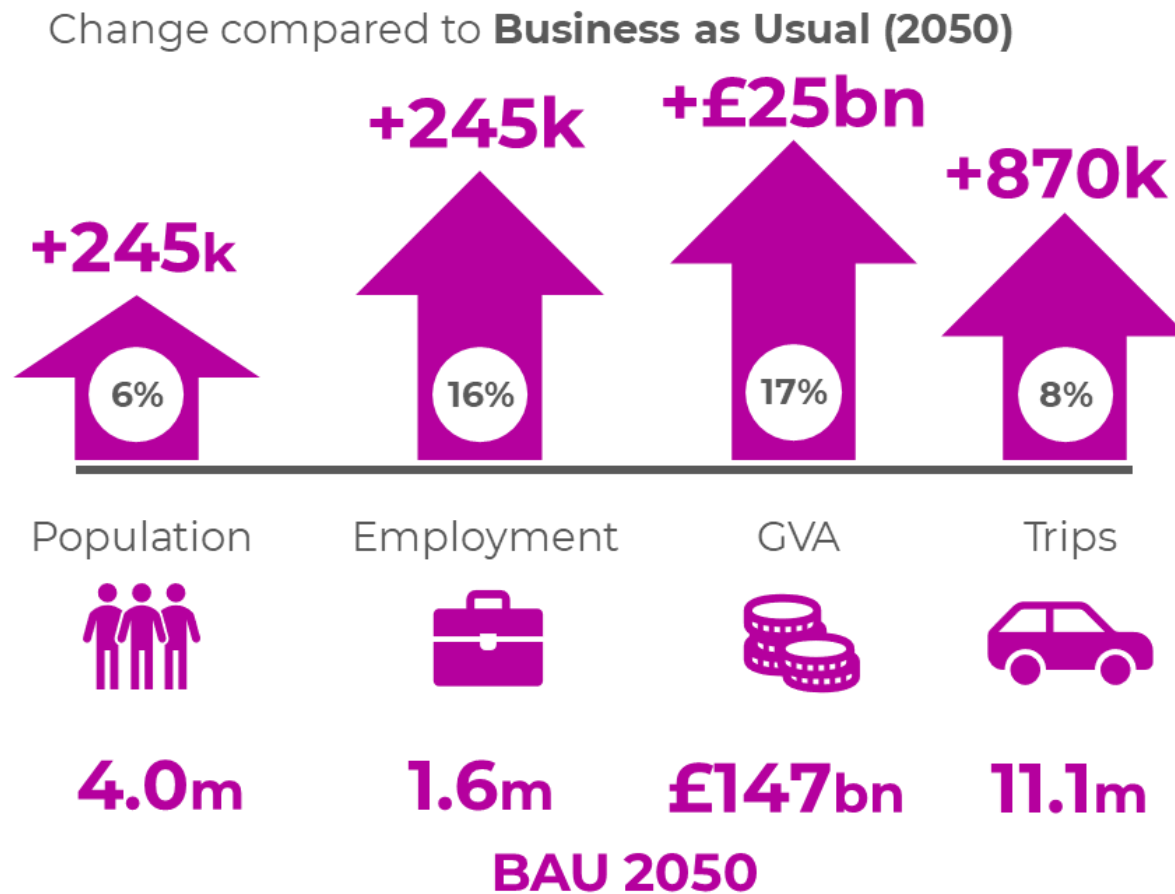


Change in trips by mode

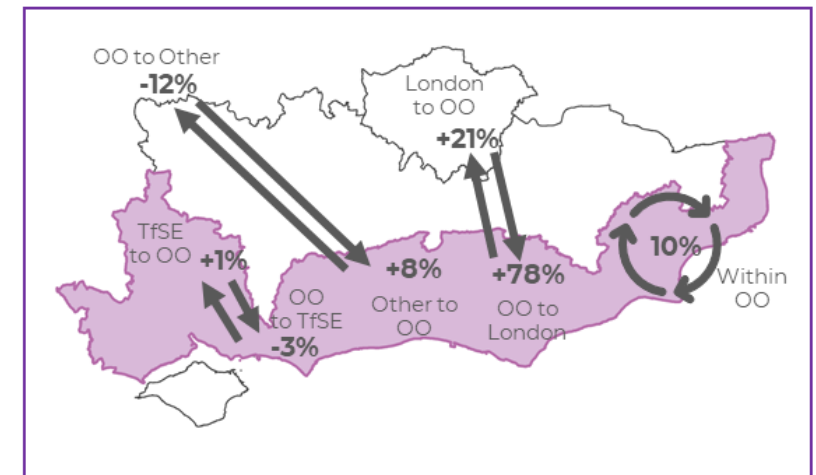




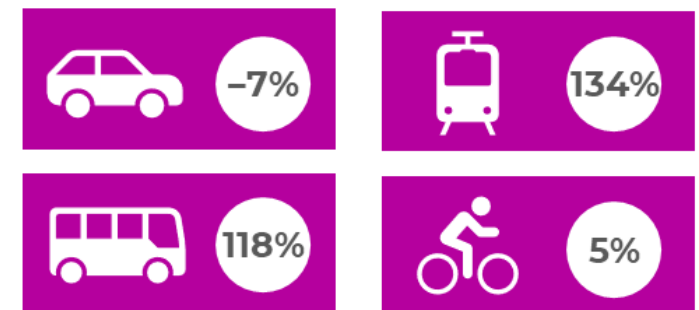
**Figure 2.5: Preferred Scenario 2050 projections compared to the Business As Usual 2050 projections**



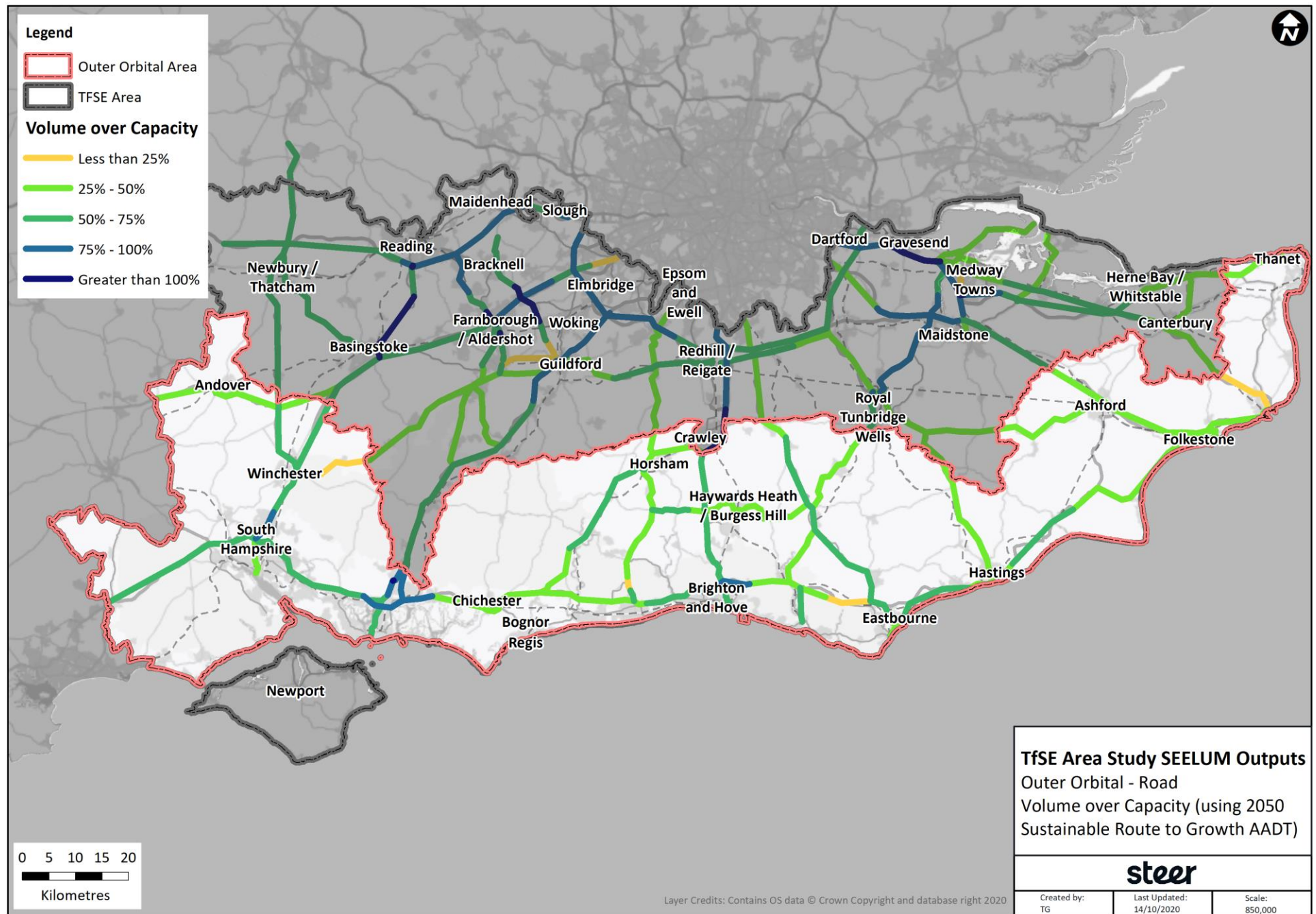
### Change by movement type



### Change in trips by mode

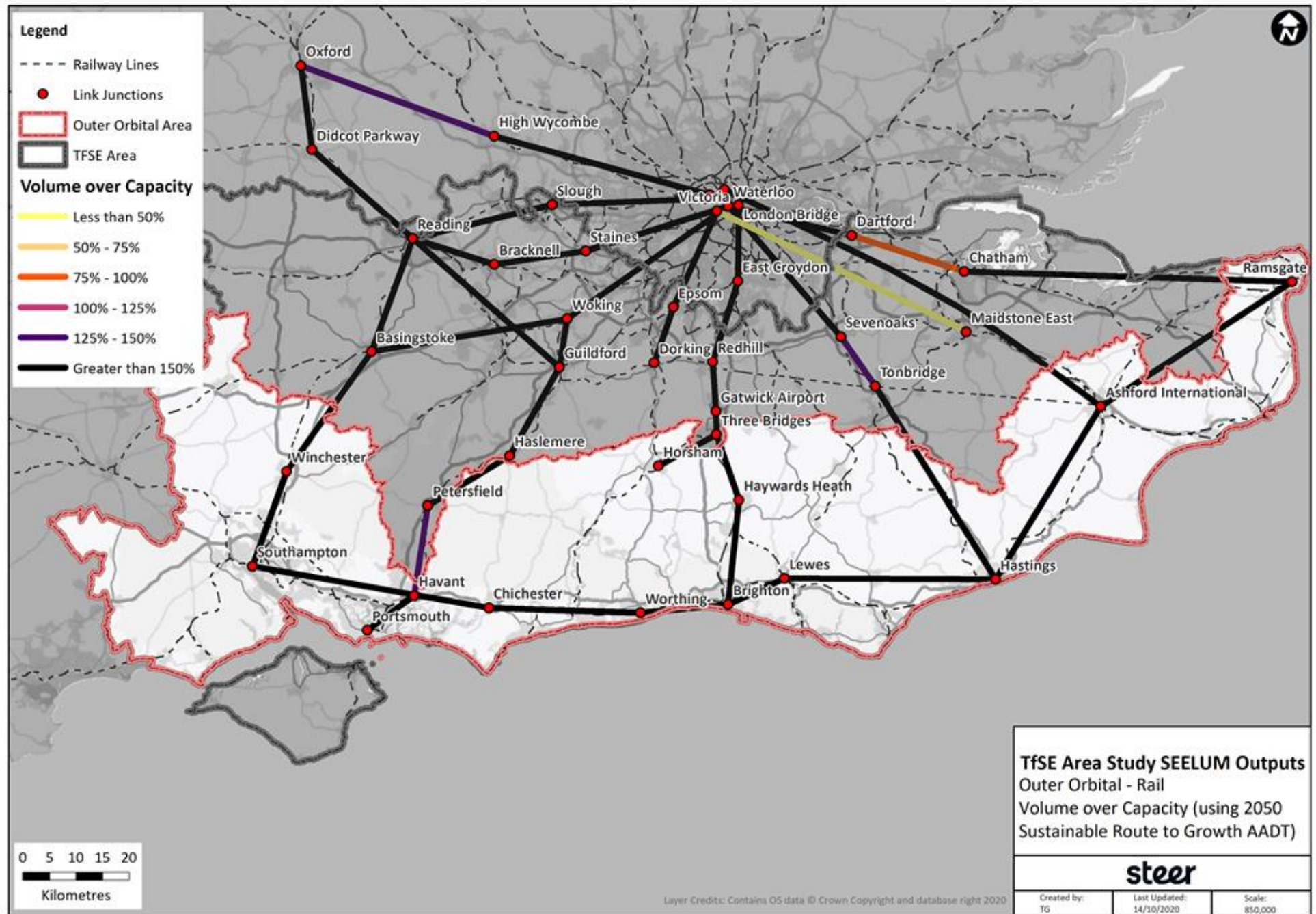


**Figure 2.6: Volume over capacity forecasts for highways under the Preferred Scenario, “A Sustainable Route to Growth”**





**Figure 2.7: Volume over capacity forecasts for railways under the Preferred Scenario, “A Sustainable Route to Growth”**







## Part 2c

# Interventions

# Highways Interventions

Highways England are promoting several strategic highways interventions in the Outer Orbital area, many of which aim to improve east – west connectivity.

**Table 2.1** summarises the key highways interventions that are currently in development in the Outer Orbital area.

Three major schemes on the M27 are currently under construction in South Hampshire. Further east, there are a series of interventions which aim to tackle the bottlenecks present along the A27 between the major economic hubs of South Hampshire and Brighton and Hove.

Other highways interventions in the area include upgrading parts of the A259 to better serve shorter-distance journeys between local settlements on the South Coast, alleviating pressures on the A27/M27. There are also schemes which aim to improve access between the main highway corridor and points of interest along the coast such as ports and coastal communities.

Many of the highway interventions highlighted have passed the initial feasibility stages and have shortlisted options on the table. However, most of these scheme still need to follow (lengthy) statutory processes and secure funding if they are to be realised.

**Table 2.1: List of highway interventions in the pipeline to enhance the Outer Orbital corridor**

Project name	Estimated Delivery date	Estimated Cost
<b>Major highway interventions on the Strategic Road Network in the Outer Orbital area</b>		
M27 junctions 4 to 11: Smart Motorway	2021	£244m
M27 J3 to M271/A35 Junction - access to Southampton Port	2020	£13m
M27 J3 to M271/A35 Junction	2020	£13m
M27 Junction 8 + Northam Rail Bridge and A3024 MRN Corridor	2022	£130m
A27 Portsmouth East/West - A27/A2030 Junction and Cosham Railway Bridge	2020	£2.1m
A27 Chichester Bypass	2030+	£50-£280m
A27 Arundel bypass	2025+	£250m
A27 Worthing and Lancing Improvements	2025+	£100-£1350m
A27 Lewes and Polegate Improvements	2025+	£75-£400m
<b>Major highway interventions on the Major Road Network in the Outer Orbital area</b>		
A259 corridor improvements	2022	£25.8m
A259 (Kings Road) Seafront Highway Structures (Arches) Renewal Programme	2023	-
Botley Bypass	2022	£26m
Access to Fareham and Gosport (Newgate Lane and Stubbington Bypass)	2022	£100m
Tipner and Horsea island redevelopment	2025+	-
A29 Corridor realignment	2026	£54.2m
A284 Lyminster bypass	2025	£21.4m
Rowner Road Scheme and Eclipse busway scheme	2022	£9.5m

# Railway Interventions

**Network Rail are preparing several rail interventions that will enhance the East and West Coastway lines.**

**Table 2.2** summarises the key railway interventions that are currently under development in the Outer Orbital area.

The most ambitious railway intervention includes developing dynamic loops along the West Coastway line, which supported with technology upgrades will allow for faster services to effectively overtake stopping services, vastly improving journey times between the major hubs of Southampton and Brighton. To the East of Brighton, there are plans of connecting the Marshlink line to HS1, improving rail connectivity with Hastings.

These large-scale interventions are supported by plans to upgrade the lines and branches which interface with the Coastway lines, such as double tracking the Botley line to enable more frequent services on this route. There are also plans to upgrade the Arun Valley line which will see new stations and enable more services between the South Coast, Gatwick Airport, and London.

As with the highway interventions listed in the previous page, most of the schemes listed to the right are in the earlier stages of their development.

**Table 2.2:** List of railway interventions in the pipeline to enhance the Outer Orbital corridor

Project name	Estimated Delivery date	Estimated Cost
<b>Major railway interventions in the Outer Orbital area</b>		
West Coastway Continuous Modular Strategic Planning	2025+	Up to £1.2bn
High Speed to Hastings via the Marshlink Line	2025+	£210-£270m
Solent Continuous Modular Strategic Planning programme.	2025+	-
Lengthening of platforms at Lancing, Goring-by-Sea, Angmering and Littlehaven	2025+	-
Brighton station upgrade creating a new platform	2030+	-
<b>Other railway interventions in the Outer Orbital area</b>		
Thanet Parkway – new station	2023	£24m
Portsmouth Harbour reopening of a disused platform 2 and/or increasing capacity	2025+	
Arun Valley line upgrades - new stations, faster line speeds, new service configurations	2030+	-
Arundel and Barnham chord	2030+	-
St Denys Junction upgrade	2030+	-
Eastleigh to St Denys corridor interventions - constraint on SWML with no passing option	2030+	-



# International Gateway and Local Transport Interventions

The South Coast is home to some of the largest international gateways to the UK.

Table 2.3 summarises the key international gateway and local transport interventions under development in the Outer Orbital area.

Southampton and Dover are home to two of the busiest ports in the UK. Both ports have desires to increase the freight traffic that passes through in the future. Some supporting transport infrastructure may need to be upgraded to meet these future demands.

Airport proposals include expansion in capacity at Gatwick and the extension of the existing runway at Southampton, enabling larger aircraft to serve the airport.

**Many of the largest cities in the Outer Orbital area are developing ambitious public and active transport programmes.**

Local stakeholders are committed to active travel interventions such as increasing the coverage of the cycling network in Eastbourne and Brighton. More ambitious plans, such as creating an integrated mass transit system in the Solent area, are also under development. The Transforming Cities Fund grants to Southampton and Portsmouth should help the earlier stages of these proposals.

**Table 2.3:** List of international gateway and local interventions planned in the area

Project name	Estimated Delivery date	Estimated Cost
<b>Major interventions supporting international gateways in the Outer Orbital area</b>		
Southampton airport investment programme, including runway extension	2023	-
Newhaven Port Access Road (NPAR)	2025	£23m
Newhaven freight line upgrade/closure of Newhaven Marine Station	2020	£600k
<b>Local transport interventions in the Outer Orbital area</b>		
Solent Metro (concept developed by Solent LEP)	2030+	-
Hastings and Bexhill Movement and Access Programme	2021	£9.4m
Southampton Transforming Cities Fund	2023	£68m
Portsmouth City Council Transforming cities fund	2025+	£102m
Sustainable Transport Package - Downs Link and NCN2	2020	£2.1m
Eastbourne and South Wealden Walking and Cycling package	2021	£7.4m
Hailsham, Polegate, Eastbourne Movement and Access Transport scheme	2022	£3.5m
Sustainable Transport Package - Brighton Bike Share and cycle lane creation	2020	£1.5m
Sustainable Transport Package - Montague Place, Worthing	2020	£1.5m



## Part 2d

# COVID-19

# COVID-19

The South East has been severely impacted by the COVID-19 pandemic – both in terms of the health of its people, and in terms of the economy.

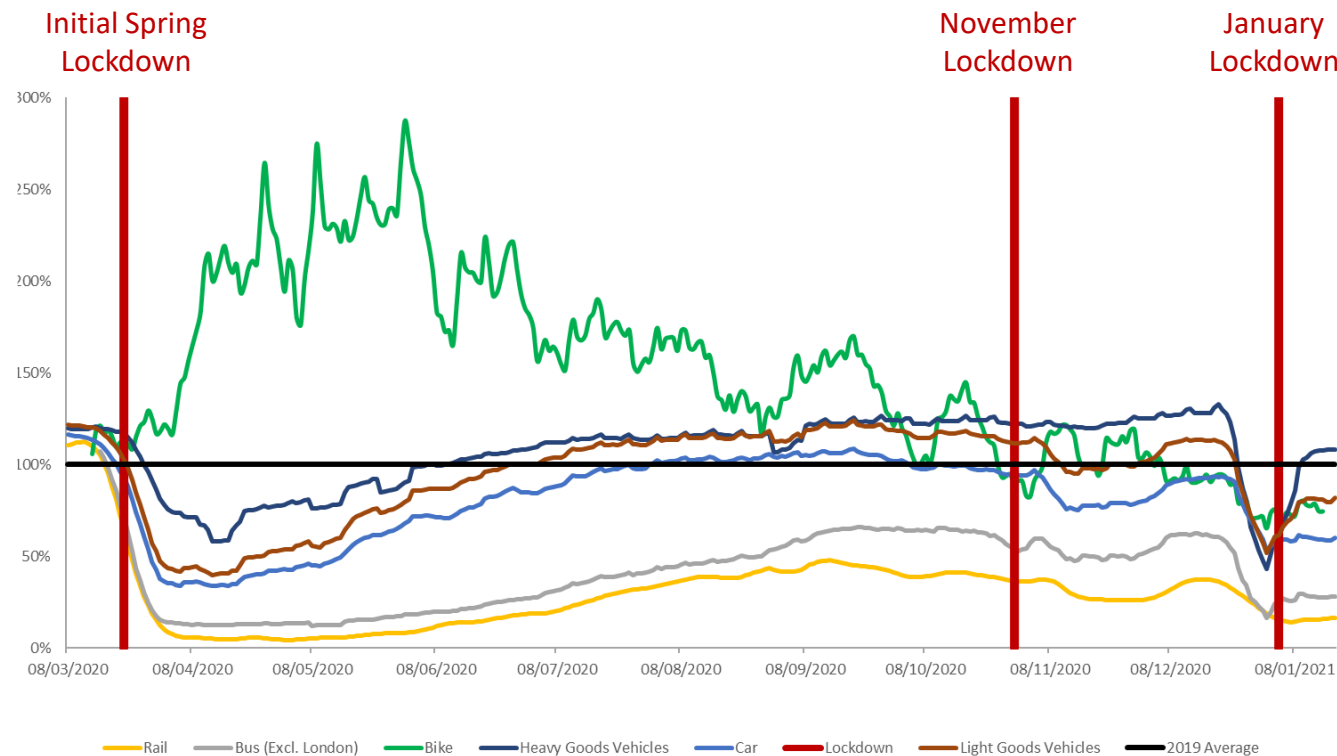
At the time of writing, the South East had experienced three periods of “lockdown”. Each lockdown has had a significant impact on the economy and transport network. There remains significant uncertainty about how the transport network is going to develop post COVID-19.

### Impact on transport networks and demand

As **Figure 2.8** shows, travel behavior has differed markedly compared to the 2019 average since the first lockdown in spring 2020. In general, this lockdown generated an initial increase in the use of active modes in urban areas, which has since declined as the winter has advanced. Motoring rebounded quickly after the initial lockdown and is now at pre-COVID-19 pandemic levels. Public transport modes have been severely impacted across all areas, and farebox revenues have been significantly impacted by this trend.

At the time of writing, rail patronage, in particular, remains significantly below pre-lockdown levels.

Figure 2.8: Indexed transport demand by mode (national)



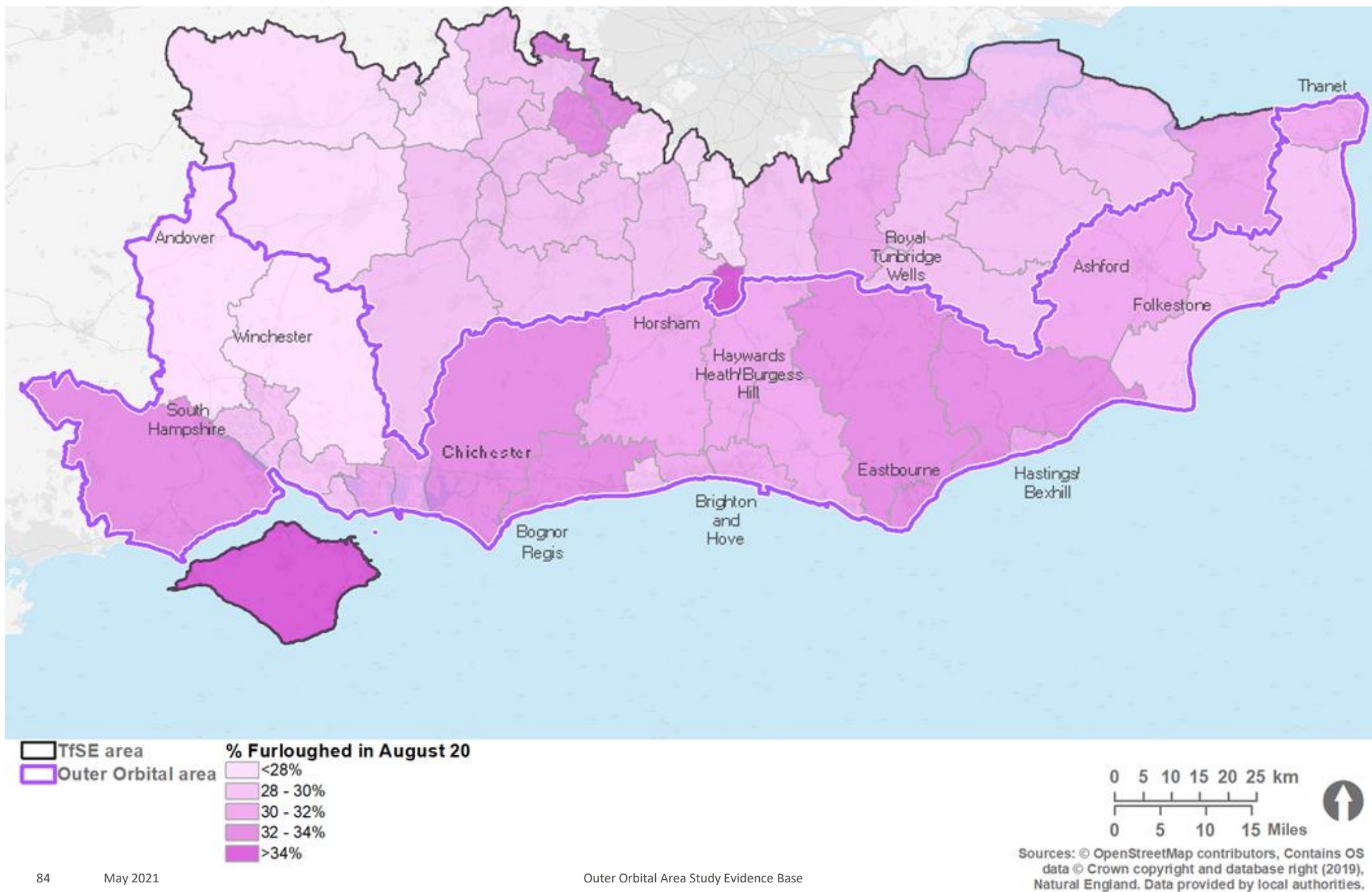
### Impact on the economy and employment

There has also been a significant impact on the economy and employment. In March 2020, the Treasury introduced a furlough scheme to cover a portion of the cost of employees who were unable to work during the spring lockdown.

**Figure 2.9** shows the proportion of furloughed workers in the Outer Orbital area. The portion of workforce placed on furlough appears to have been higher in Districts and Boroughs in this area compared to those to the north.



**Figure 2.9: Portion of the workforce participating in the COVID-19 furlough scheme**





## Part 2e

# PESTLE Analysis

# PESTLE Analysis - Introduction

## What is PESTLE analysis?

PESTLE considers the key exogenous drivers that might impact the Outer Orbital area.

The framework considers:

- P** Political
- E** Economic
- S** Sociological
- T** Technological
- L** Legal
- E** Environmental

This framework is designed to capture the key external factors which may impact upon any organisation or area. This can help the organisation to spot future risks and opportunities which may impinge/influence its future strategy.

This type of analysis is particularly useful in this area because of the array of factors which feed into its future development – there is no single overriding factor which will define its future development.

A summary of the key issues identified through this analysis is presented in **Figure 2.9** to the right and explored in more detail in the following two pages.

Figure 2.9: Summary of PESTLE Analysis

Political	Economic	Social
<ul style="list-style-type: none"><li>Increasing interests and concerns about Climate Change and the environment</li><li>The “Levelling Up” agenda and devolution</li><li>COVID-19 and “Building Back Better”</li></ul>	<ul style="list-style-type: none"><li>COVID-19 and the recession</li><li>Reducing reliance on London as an economic centre</li></ul>	<ul style="list-style-type: none"><li>Inequality</li><li>Ageing population</li><li>Changes in working patterns</li></ul>
Technological	Legal	Environmental
<ul style="list-style-type: none"><li>New mobility</li><li>Broadband and mobile telephony connectivity</li><li>Technological developments in established transport networks</li></ul>	<ul style="list-style-type: none"><li>UK Exit from the European Union</li><li>Planning framework reforms</li><li>Local government reform</li></ul>	<ul style="list-style-type: none"><li>Climate Change</li><li>National Parks</li><li>Changing attitudes and behaviors to sustainability</li></ul>



# PESTLE Analysis (1 of 2)

## Political

- **Environmental awareness** – There is increasing awareness in the political mainstream that environmental destruction fundamentally threatens the stability of our societies. This shift in policy/political direction will likely change the nature of the conversations being conducted about future scheme development in the Outer Orbital area.
- **“Build Back Better”** – Following calls for a “Green New Deal” the current government is promising to “Build Back Better” following the COVID-19 pandemic. This may help the Outer Orbital area to alleviate significant constraints, in terms of housing provision and transportation links.
- **“Levelling up”** – The government has expressed a need to ‘level up’ the economy, helping to reduce inequality. Greater devolution of power to local government and the rise of LEPs may also improve decision making at a regional level, and increase the effectiveness of many schemes.

## Economic

- **COVID-19 recession** – The UK economy is currently in a recession resulting from the COVID-19 pandemic. It has caused unprecedented structural changes to, and imposed severe limits upon, economic activity. This will have a major impact on the economic development of the Outer Orbital area, and the South East more widely. In times of austerity, central government may be forced to reduce grants to Local Authorities. Local Authority funding may be affected by declines in local income streams (e.g. business rates).
- **Reducing reliance on London as an economic centre** – The government have outlined an ambition to “level up” the economy through investing more in the regions. The Outer Orbital area could benefit from this investment. Couple this with COVID-19 and a shift in attitudes to working in large centres, there may be more scope for developing local economies which will benefit small and medium sized enterprises. There is opportunity for new industries in the region, which will drive jobs and earning potential.

## Social

- **Inequality** – The Outer Orbital corridor has extremely high levels of regional inequality, causing and exacerbating a range of social problems such as the inability to afford a place to live (homelessness), poor health and criminal behaviour.
- **Ageing population** – Certain sections of the Outer Orbital corridor have a very concentrated elderly population. For example, Rother has the highest proportion of people aged 85 and over of all districts in England and the second highest proportion of people aged 65 and over. This has the potential to place a brake on regional growth, whilst also adding significant expense to the region’s healthcare bill.
- **Changes in working patterns** – In response to the COVID-19 pandemic, significant volumes of people are working totally/more extensively from home. This has encouraged individuals who might otherwise have lived and worked full-time in London to spend more time in the South East. Some stakeholders believe this trend will continue and this could lead to more people living further away from London and commuting less frequently than before.

# PESTLE Analysis (2 of 2)

## Technological

- **New Mobility** – This encompasses new, emerging technologies (e.g. electric vehicles, scooters, and bikes) as well as new business modes, often based on sharing rather than owning assets. Advances in technology must be allied with encouragement by local political actors to ensure the uptake of these technologies is straightforward and widespread.
- **Broadband and mobile telephony connectivity** – Social changes, such as increased home working, and the greater need for internet to share data about what is happening around the transport network (e.g. congestion) mean that connectivity to the internet is becoming increasingly important for economic prosperity and development.
- **Technological developments in established transport networks** – This includes Smart Motorways, Smart Ticketing, and technology that enables dynamic and automated signalling (which can increase rail capacity).

## Legal

- **UK exit from the European Union (“Brexit”)** – There will be significant changes in the legal frameworks which govern trade flows between the UK and EU. This will likely have a major impact upon the flows of people and goods that move through the international gateways located in the Outer Orbital area, potentially leading to delays and congestion.
- **Planning Framework Reforms** – The current approach toward planning and developing schemes can make it challenging to bring projects to reality. For example, schemes which were proposed over 20 years ago have still seen little development. The A27 provides the best example in this area.
- **Local Government Reform** – There is a general trend in UK local government towards Unitary Authorities and Combined Authorities. Unitary Authorities, which combine the powers and roles of counties and districts into a single authority, already exist in urban areas in the Outer Orbital Area. In other parts of England, Unitary Authority are being established to replace two tier counties. Some areas are going further by combining transport functions through Combined Authorities.

## Environmental

- **Climate Change** – The Outer Orbital corridor will be particularly impacted by the climate crisis because it has a very long coastline and is already one of the warmest areas in the country. It is also forecast to have one of the fastest rising temperatures of all UK regions. Many activists are increasingly using the UK’s Climate Change Act (2019) to challenge infrastructure planning decisions
- **National Parks** – The Outer Orbital area is home to internationally significant national parks (for example, the South Downs) which are one of the region’s core strengths. However, they also significantly constrain opportunities for development.
- **Changing attitudes and behaviors to sustainability** – People are becoming more aware of the wider climate issues. Environmental groups are becoming more vocal in the region, showing strong opposition to infrastructure schemes which may harm the natural environment or increase carbon emissions. This may encourage more people to switch from less sustainable transport modes (e.g. cars) to more sustainable modes (e.g. healthy and public transport).



## Part 3

# Need for Intervention





## Part 3a

# Issues and Opportunities

# Socioeconomic Outcomes

The Outer Orbital Area has poorer and less equal socioeconomic outcomes than any other part of South East England.

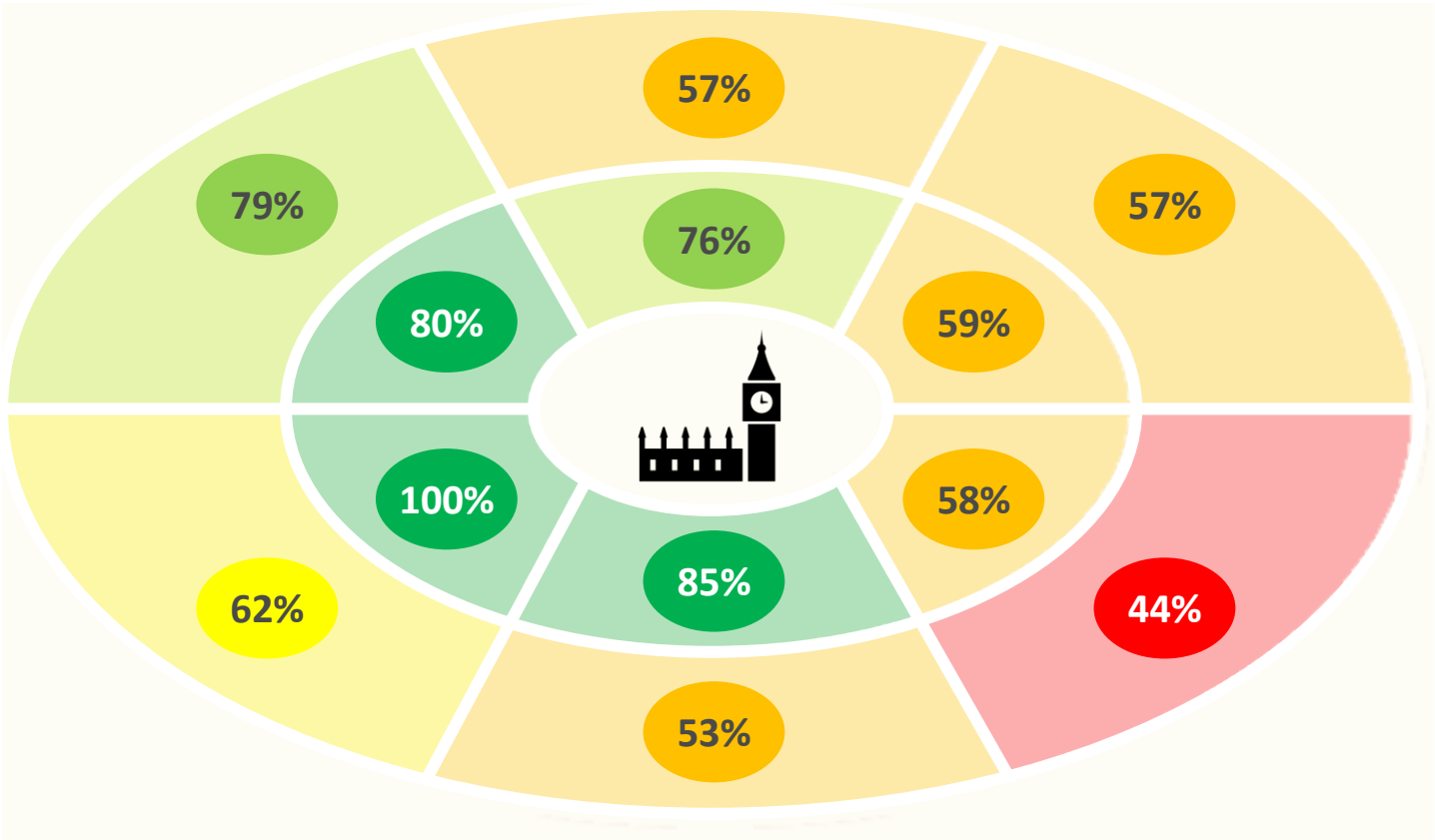
This study has analysed socioeconomic data covering a wide range of indicators including:

- GVA per capita
- GVA growth per capita
- Employment
- Indices of Multiple Deprivation
- Education attainment

Figure 3.1 to the right shows the average GVA per capita observed for 12 zones around London. Six zones are in the TfSE area, and a further six (to the north of London) lie outside the TfSE area. These zones can be combined to create the areas included in the TFSE area study programme (for example, the two segments immediately south of London correspond to the South Central area).

In general, we observed that most socioeconomic indicators appear to be stronger in the west and weaker in the east. While this trend is observed both north of and south of London, it seems to be particularly acute south of the river. In summary, coastal areas in the Outer Orbital area need to “work harder” to compete with other areas in the South East.

Figure 3.1: Average GVA per capita around the South East, where South West/Inner = 100



There are many reasons why coastal areas are performing less well than others – poor transport connectivity is not the only issue at play. However, the poor connectivity illustrated in pages 41 to 46 are almost certainly contributing to poor socioeconomic outcomes in places like Hastings and Thanet.

Source: ONS GVA per capita data  
South West / Inner Orbital zone = 100%  
Icon Credit: Pham Duy Phuong Hung

Tables listing the data underpinning this analysis is provided in Appendix B.

# Connectivity

Orbital (east – west) connectivity is demonstrably poorer than radial (north – south) across most of the Outer Orbital area – both for highways and railways.

Figures 3.2 and 3.3 show the average speed of journeys between a selection of towns and cities in the South East for car, train, and bus services. The distances between these towns and cities is around 30 to 40 miles. Similar length distances were chosen to provide a fairer comparison.

In general terms, and based on the selection of journeys shown to the right, we found that:

- Car journeys are approximately 33% faster on radial routes compared to orbital routes.
- Bus and rail journeys are approximately 50% faster on radial routes compared to orbital routes.

Figure 3.2: Speeds on selected radial routes

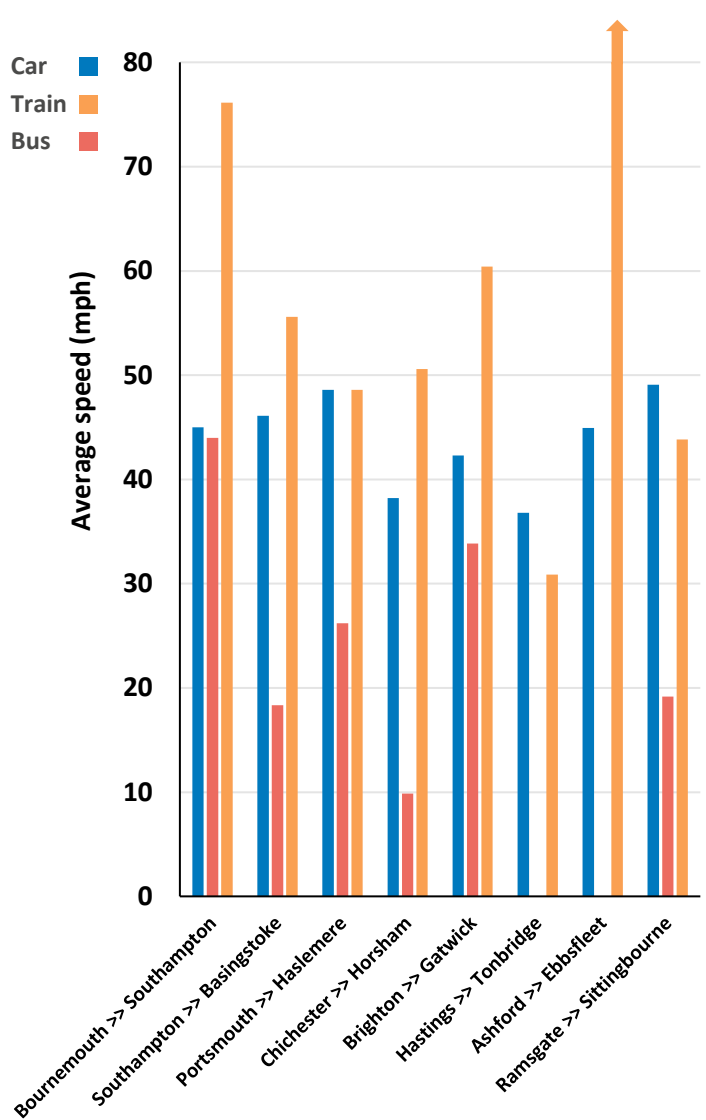
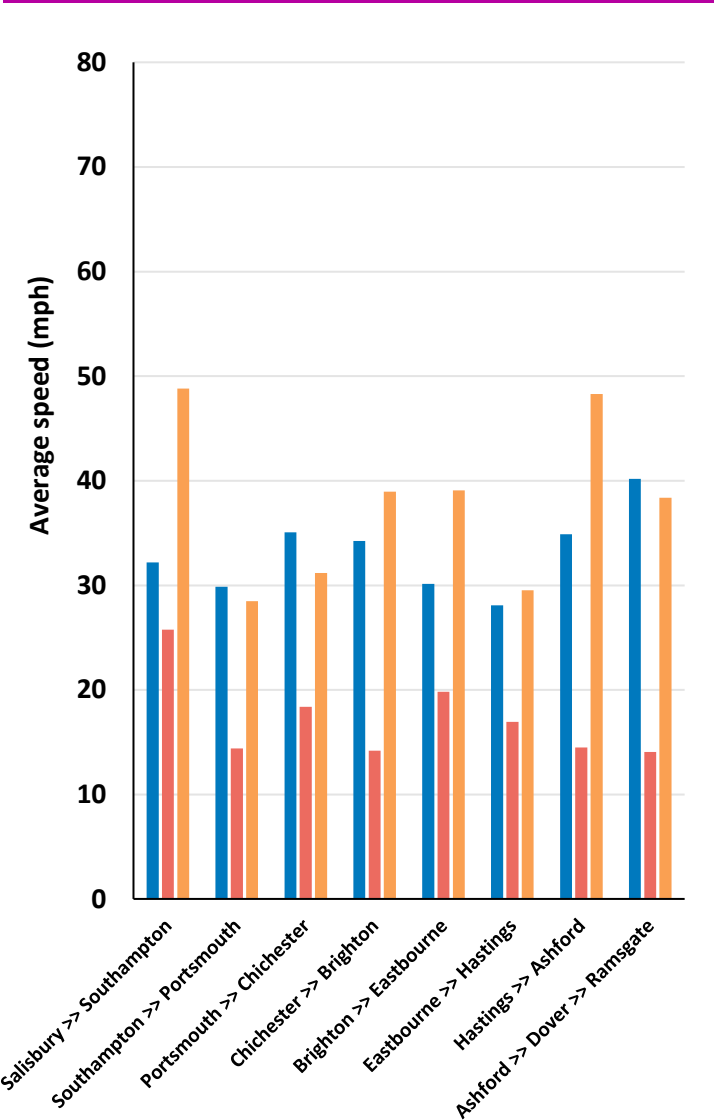


Figure 3.3: Speeds on selected orbital routes





# Mass Transit

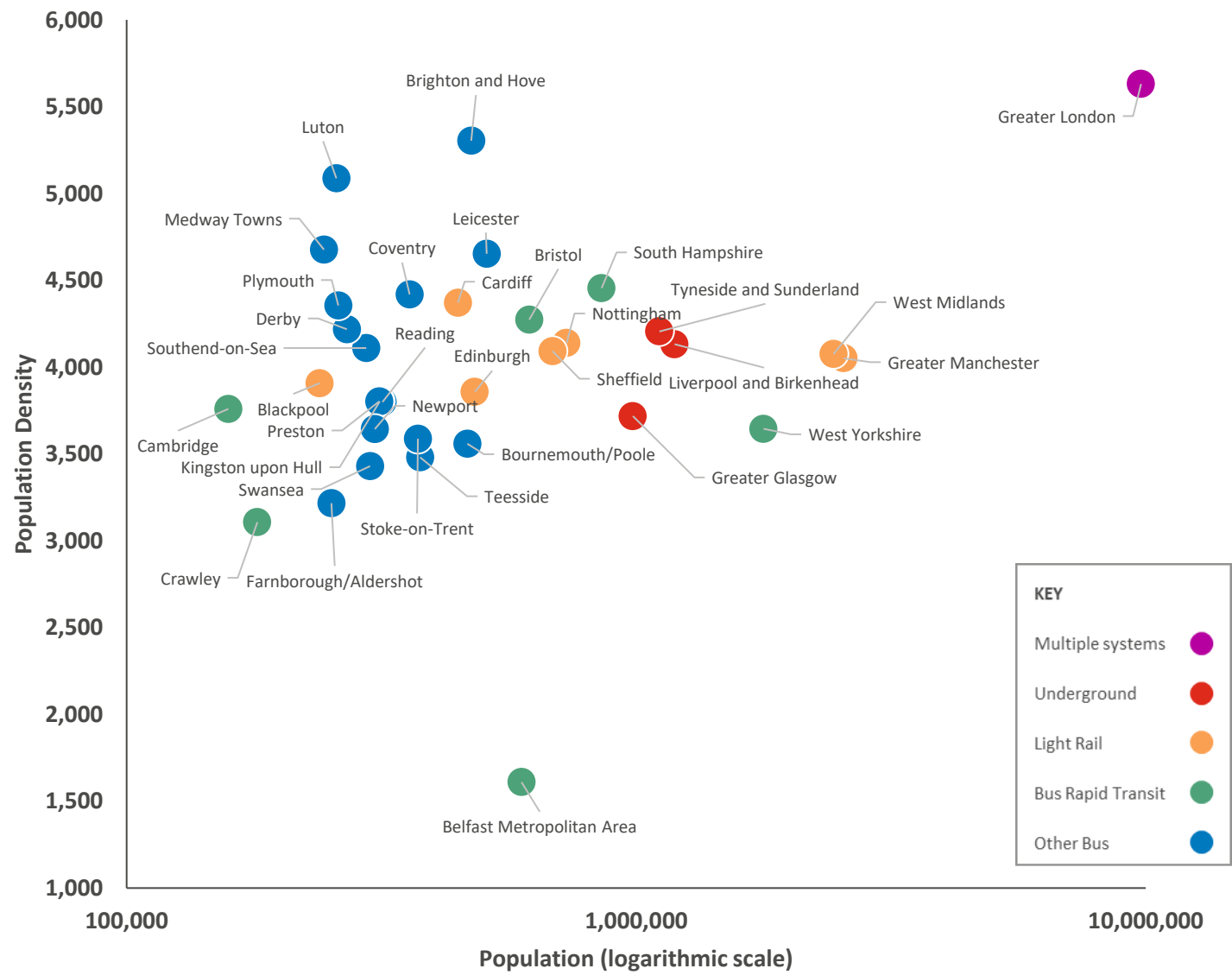
There is a strong case for investing in a “step change” in local public transport provision in the Outer Orbital area.

Figure 3.4 shows the largest conurbations in the United Kingdom by their population (shown on a logarithmic scale to include London) and population density. For England and Wales, this is based on Office of National Statistics definitions of Built Up Areas.

The colours of the dots indicate the types of public transport systems provided in these conurbations. These range from multiple systems (London) to underground systems (e.g. Newcastle), Light Rail/Tram systems (e.g. Manchester), Bus Rapid Transit systems with at least one section of guided busway and/or bus only corridors (e.g. Belfast) to conventional bus systems. For context, we have included Crawley and Cambridge, which are well known for their Bus Rapid Transit systems.

The relative size of the population of conurbations in the Outer Orbital Area (particularly South Hampshire and Brighton and Hove), when placed into the context of other conurbations in the UK, suggest that the South East’s conurbations are comfortably large enough and dense enough to justify investing in a high-quality mass transit system.

Figure 3.4: Mass transit options in major conurbations in the UK



# Decarbonisation Options

The vast majority of local authorities in South East England have declared a “Climate Emergency” and committed to decarbonise their transport networks by 2050 (at the latest – some are aiming for earlier dates).

This will require a significant shift towards electric traction across all modes. As Figure 3.5 shows, electric modes of transport (e.g. Eurostar) emit far less carbon emissions than other modes.

Switching fossil-fuel powered cars to electric alternatives will be key to achieving decarbonisation, as currently cars are not only the most polluting land transport mode, but also the most popular (and will remain so).

There will also be a need to encourage modal shift to lower and zero carbon emitting modes, notably healthy transport (walking and cycling) and public transport.

The six priorities of the Department for Transport’s **Decarbonising Transport** policy document (cited earlier) are presented in Figure 3.6. These are all applicable to the Outer Orbital area.

Figure 3.5: Carbon emissions per passenger km (Source: BEIS/Defra 2019)

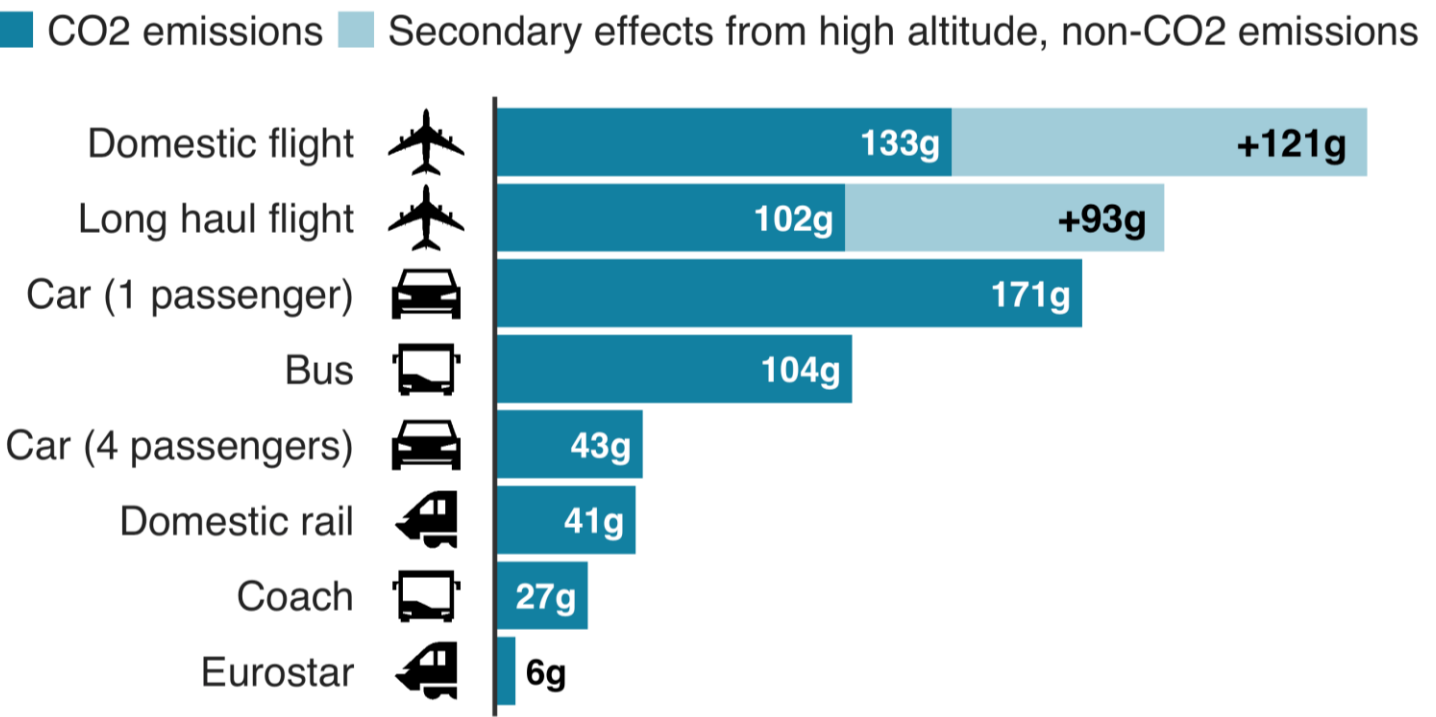


Figure 3.6: DfT Decarbonising Transport priorities (Source: DfT, 2020)



# Rail Demand along the Outer Orbital Corridor

The primary orbital rail corridor is the West Coastway Line, connecting the Major Economic Hub of Brighton with Southampton and Portsmouth, whilst also providing a local service to towns along the South Coast.

The West Coastway line currently serves multiple markets, as displayed in Table 3.1.

7.9 million journeys (23% of all journeys) are confined to the West Sussex area. Half of these local journeys (4.1 million) along the line are below 10km in distance. This includes journeys between Brighton and the nearby settlements of Hove, Lancing and Shoreham by Sea.

The line interfaces with several radial lines, including the Brighton Main line and Arun Valley line, enabling direct services from the South Coast to London. 15.7 million rail journeys starting or ending in West Sussex (45% of all journeys) are to/from London.

In comparison, only 2.1 million journeys (6% of all journeys) are to/from the neighbouring Solent region. This is likely due to the poor journey times between Brighton and Portsmouth/Southampton, caused by slow line speeds coupled with most services being scheduled to stop at several intermediary stations. There are 22 stations between Brighton and Havant, with semi-fast services still typically calling at half of these. This is due to the railway being two track only, with few opportunities for faster services to overtake local services; added with the requirement for these services to perform a dual role of serving local and regional flows.

Rail also has a low modal share in South Hampshire (2.3% in 2011), significantly lower than the TfSE average of 4%.

Table 3.1: Rail demand along the West Coastway and Arun Valley Lines

Flow	Number of journeys	% of journeys
Journeys within the West Sussex area	7.9 million	23%
Journeys to/from Solent	2.1 million	6%
Journeys to/from Greater London	15.7 million	45%
Journeys to/from other destinations	9.4 million	27%



Top local flows along the West Coastway Line	Number of journeys
Brighton – Worthing	545,000
Brighton - Shoreham by Sea	330,000
Brighton - Hove	249,000
Chichester - Barnham	239,000
Brighton - Lancing	235,000
Chichester - Portslade	212,000
Brighton - West Worthing	199,000
Chichester - Littlehampton	174,000
Barnham - Bognor Regis	166,000

Source: Network Rail 2018-19 data extracted from the West Sussex Connectivity Modular Strategic Study



# Public Transport and Active Travel Opportunities and Challenges

In support of the development of TfSE's Transport Strategy, Steer undertook an analysis of the characteristics of South East's Major Economic Hubs. This analysis identified opportunities to promote more active travel and public transport mode share at all the Outer Orbital Area's Major Economic Hubs. A summary of this analysis is presented in **Table 3.2**.

**Table 3.2: Active Travel and Public Transport opportunities at the Outer Orbital Area's Major Economic Hubs**

Major Economic Hub	High self-containment (50%+)	High % of journeys under 2km (20%+)	High % of journeys 2 - 5km (20%+)	High % of journeys 5 – 10km (20%+)	Low active mode share (below 20%)	Low public transport mode share (below 15%)
Implication	Opportunity to increase sustainable transport mode share	Opportunity to increase active travel mode share	Opportunity to increase cycling mode share	Opportunity to increase public transport mode share	Opportunity to increase active travel mode share	Opportunity to increase public transport mode share
Ashford	✓	✓	✓		✓	✓
Bognor Regis	✓	✓	✓			✓
Brighton and Hove	✓	✓	✓			
Chichester				✓		✓
Eastbourne	✓	✓	✓		✓	✓
Folkestone	✓	✓	✓			✓
Hastings/Bexhill	✓	✓	✓		✓	✓
Portsmouth	✓	✓	✓	✓		
Southampton	✓	✓	✓	✓	✓	✓
Thanet	✓	✓	✓		✓	✓
Worthing	✓	✓	✓		✓	

# Major Economic Hub Development Opportunities and Challenges

Steer also analysed the opportunities and challenges presented by planned developments at each of the Outer Orbital Area's Major Economic Hubs. A summary of analysis is presented in **Table 3.3** below and in detail in **Appendix C**.

**Table 3.3: Development opportunities and challenges at the Outer Orbital Area's Major Economic Hubs**

Hub	Development Opportunities and Challenges
<b>Ashford</b>	<ul style="list-style-type: none"> <li>This is one of the fastest growing towns in the South East area. Most development is planned for the south of the town (which is not conducive to active travel) and around the international railway station, which has an excellent service to London (but is becoming increasingly crowded). Significant employment growth is also planned for this town, which should limit the need for new residents to seek employment elsewhere. Recent improvements to the Strategic Road Network and local roads should ensure highway capacity is able to accommodate this growth. Ashford is expected to become more self-contained, which suggests commuting trips outside this hub will increase.</li> </ul>
<b>Bognor Regis</b>	<ul style="list-style-type: none"> <li>Approximately half of planned developments will occur in locations accessible to the town centre/public transport sites by walking/cycling. However, other developments are planned on the periphery of this Major Economic Hub, which risks placing additional demand on the (already strained) local highway network.</li> </ul>
<b>Brighton and Hove</b>	<ul style="list-style-type: none"> <li>Most development is concentrated on public transport corridors close to shops, services, and employment areas. While there is a risk these developments will add some pressure on the local highway network, they should be well served by bus, rail, and active travel corridors.</li> </ul>
<b>Chichester</b>	<ul style="list-style-type: none"> <li>Most development is on the periphery of the urban area, although some development is located within feasible walking/cycling distance of the train station/town centre.</li> </ul>
<b>Eastbourne</b>	<ul style="list-style-type: none"> <li>Most housing development planned within walking/cycling distance of public transport sites and the town centre. However, there is a risk this development will place additional pressure on the Strategic Road Network (e.g. A27 and A259).</li> </ul>
<b>Folkestone</b>	<ul style="list-style-type: none"> <li>More than half of the major development sites are located beyond walking/cycling distance from the town centre/public transport network. There is a risk that many new residents will be highly dependent on the car.</li> <li>This Major Economic Hub is expected to become less self-contained, which suggests commuting trips outside this Major Economic Hub will increase.</li> </ul>
<b>Hastings and Bexhill</b>	<ul style="list-style-type: none"> <li>While some development in Hastings will be located near the railway station, most will occur on the perimeter, quite far from the town centre. In Bexhill, development is also quite far from the town centre. This does not bode well for public and active transport. There is also a risk that future development will place additional pressure on the (already constrained) Major Road Network in this area.</li> </ul>
<b>Portsmouth</b>	<ul style="list-style-type: none"> <li>There is also a significant level of brownfield site regeneration in Portsmouth. That said, these developments are likely to add strain to the M27 and other strategic and major roads in this area, which already experience serious congestion, notably around major intersections.</li> </ul>
<b>Southampton</b>	<ul style="list-style-type: none"> <li>Most development will occur on public transport corridors and near public transport hubs (such as Southampton railway station). While these developments will be served by public transport, they are likely to add strain to the M27 and other highways in this area, which already experience serious congestion, notably around major intersections.</li> </ul>
<b>Thanet</b>	<ul style="list-style-type: none"> <li>A significant amount of development will occur in locations that are beyond reasonable walking/cycling distance from the town centre and/or public transport hubs. There is a risk these developments will pressure strain to the A28 or the A299 (although the latter road is relatively uncongested).</li> <li>This Major Economic Hub is expected to become more self-contained, which suggests commuting trips outside this Major Economic Hub will increase.</li> </ul>
<b>Worthing</b>	<ul style="list-style-type: none"> <li>Most development is concentrated on public transport corridors close to shops, services, and employment areas. While there is a risk these developments will add some pressure on the local highway network, they should be well served by bus, rail, and active travel corridors.</li> </ul>



## Part 3b

# SWOC Analysis

# SWOC Analysis

## Introduction

SWOC is a framework that considers:

- S** Strengths
- W** Weaknesses
- O** Opportunities
- C** Challenges

It is used to help understand and synthesise an organisation or area's current resilience, and future potential.

We have analysed the evidence presented in earlier parts of this document and worked with stakeholders to understand the key strengths, weaknesses, opportunities and challenges Outer Orbital area. These are summarised to the right and on the following page in **Figure 3.7**. We have also considered the SWOCs for highways (including local and healthy transport options), railways, and international gateways. These are presented in **Figures 3.8, 3.9, and 3.10** respectively.

## Strengths

- **Iconic cities, including two of the largest conurbations in England (South Hampshire and Brighton and Hove)** – which serve as key recreational and employment hubs.
- **Connectivity to London** – through good highway and railway radial routes.
- **High-value high-growth industries** – including high-end manufacturing, maritime, financial services, creative industries, and IT and data centres. These will help drive growth in the future.
- **International connections** – area is home to the Channel Tunnel, a major regional UK airport and some of the UK's busiest ports.
- **Natural and historic environment** – the corridor has a high density of protected landscapes/coastlines, and numerous historic landmarks, towns, and cities.
- **Agricultural** – the area has a high portion of high-quality farming land.
- **Diversity in places and economy** – the proximity of vibrant cities, diverse landscapes, and economic opportunities provides a high level of opportunities and quality of life for residents.

## Weaknesses

- **Weaker socioeconomic outcomes (compared to the rest of the South East) with significant pockets of deprivation in places** – while transport is not the only driver of this outcome, poor connectivity is a contributing factor in areas such as Thanet, Hastings, and peninsulas/islands.
- **Poor orbital connectivity across all modes** – this makes journey times by public transport uncompetitive compared to private car journeys.
- **Less developed mass transit systems** – despite their size, South Hampshire and Brighton and Hove are not served by the types of mass transit systems that have been developed elsewhere in the UK, which means public transport is less attractive than it could be.
- **Gaps in poor rural connectivity** – rural areas are understandably less well served than denser, more highly populated urban areas, which means access to residents (and visitors) in rural areas is poor.
- **Complex governance landscape** – with multiple levels of regional, local, and national government, meaning that decision-making can be complex and slow.



## Opportunities

- **Housing and employment growth** – investment will enable more of the South East's residents to access affordable housing and local employment.
- **Regional “levelling up” agenda** – this will provide opportunities for the South East to turn its regional centres (e.g. Southampton and Portsmouth) into internationally significant cities.
- **Technology** – There could be significant behavioural change arising from the **COVID-19 pandemic, resulting in changes in working and commuting patterns**. The Solent area has submitted a bid to become a Future Mobility Zone. Further benefits from innovation and investment opportunities tied to the “green growth” agenda are likely in the future.
- **Domestic tourism** – the region has some of the most easily accessible coastline in the country, with large nearby population centres. Recent interest in domestic tourism could reinvigorate local tourism.
- **Decarbonisation** – provides a great opportunity for stakeholders to promote sustainable transport schemes such as light rail and active travel.

## Challenges

- **Climate change (sea level rise, coastal erosion, extreme storms, droughts)** – the South East's coastline is susceptible to flooding if sea levels rise. Several transport corridors are vulnerable to disruption (e.g. landslips) caused by extreme weather.
- **Population growth** – planners must ensure adequate housing, infrastructure, and services are provided for a growing population.
- **UK exit from the European Union** – there is a risk that more friction at the UK border could overspill into channel ports and the strategic road network in Kent.
- **COVID-19 and economic fallout** – the Outer Orbital area, which was already behind in some economic indicators prior to the pandemic, is exposed to the widely expected COVID-19 recession.
- **Transport accessibility, equity and social inclusion** – particularly in rural areas, coastal communities, and other areas with high indicators of deprivation.
- **Building consensus among stakeholders** – this has proved challenging in recent years.

## Conclusions

**The Outer Orbital area has many strengths that can be used to capitalise on the opportunities and mitigate the threats cited in this report.**

The combination of thriving cities and easy access to national parks and the coast make this area one of the most “livable” places in the UK.

There is *some* evidence that the COVID-19 pandemic has caused many businesses and employees to re-evaluate their working practices. While there will continue to be a need for workplaces and work-related travel, there may be an opportunity to use the lessons from COVID-19 (and the technology that supports remote working practices) to work further away from major cities like London. The quality of life offered by the Outer Orbital area suggests this area is well placed to capitalise on this opportunity.

The impacts are unclear: Perhaps more Londoners will choose to live in the Outer Orbital area? Perhaps more business inside the M25 may see benefits in relocating to coastal towns and cities? Perhaps more interest in domestic tourism (which boomed in 2020) will encourage more short stays in the South East? Either way, there are opportunities, and the transport system should be prepared for them.

A summary of the key global strengths, weakness, opportunities and challenges for the Outer Orbital Area are provided below. This was created in consultation with Tier 1 and Tier 2 stakeholders.

### Strengths

- Iconic cities
- Connectivity to London
- International connections
- Natural and historic environment
- Agricultural assets
- Diversity in places and economy

### Opportunities

- Housing and employment growth
- Regional “levelling up” agenda
- Technology and behavioural change
- Domestic tourism
- Decarbonisation agenda



### Weaknesses

- Weak socioeconomic outcomes in places
- Poor orbital connectivity
- Less developed mass transit systems
- Gaps in rural connectivity
- Complex governance landscape

### Challenges

- COVID-10 and economic fallout
- UK exit from the European Union
- Climate Change
- Accessibility, equity and social inclusion
- Building consensus

**Figure 3.8: Outer Orbital Area Highways, Active Travel, and Local Transport SWOC**

A summary of the highways related strengths, weakness, opportunities and challenges for the Outer Orbital Area are provided below. As highlighted earlier, there are significant challenges facing east – west journeys across the South Coast.

### Strengths

- Well developed radial road network.
- Good connectivity to the Midlands and London (key freight corridors)
- Strong recent increase in bus patronage in some areas (e.g. Brighton and Hove)
- Recent investment has yielded positive outcomes (e.g. East Kent, Hastings)

### Opportunities

- Scheme pipeline includes several interventions to target weaknesses – including several mass transit schemes
- Government policy strongly supports bus
- Demographics and landscape is well suited to public transport and healthy transport
- Significant housing investment planned



### Weaknesses

- Significant strategic east-west gaps.
- Poor congestion, safety, and air quality outcomes, notably at bottlenecks
- High levels of car dependence and ownership, particularly in rural areas
- Relatively low cycling participation
- Slow (and often infrequent) bus services

### Challenges

- Climate change (resilience and the need to decarbonise motoring)
- Increasing opposition to highway intervention (including cycleways) – partly driven by concern about climate change
- Limited space for new infrastructure
- Funding

**Figure 3.9: Outer Orbital Area Railways SWOC**

A summary of the key railway strengths, weakness, opportunities and challenges for the Outer Orbital Area are provided below. There are significant capacity and connectivity challenges in this area, but opportunities to develop solutions.

### Strengths

- Dense rail network
- High levels of rail electrification
- Generally good quality rolling stock
- Airports well connected to rail

### Opportunities

- Significant investment planned for capacity and resilience improvements (but need funding)
- High Speed 1 spare capacity
- Rail industry reform
- East-west markets (seen as underserved)
- End-of-life of legacy rolling stock fleets



### Weaknesses

- High fares (often in low-income areas)
- High crowding and congestion levels
- Not all towns are well served by rail
- Poor orbital connectivity
- Pockets of unelectrified network
- Significant constraints for freight traffic (gauge and cross-London links)

### Challenges

- COVID-19 recovery, funding, affordability
- Capacity constraints, esp. on radial routes
- Gauge and curvature constraints, especially in the Solent area
- Climate change (impacts on the network and the need to decarbonise)
- Integration barriers with other modes



**Figure 3.10: Outer Orbital Area Highways International Gateways SWOC**

A summary of the key international gateway strengths, weakness, opportunities and challenges for the Outer Orbital Area are provided below. In general, the area is well served by International Gateways, but there are some surface access issues.

### Strengths

- The Outer Orbital area is well served by international gateways (several major ports, Southampton/Gatwick airports, Channel Tunnel)
- Good highway access between gateways and the rest of UK and good rail links between Southampton and rest of UK

### Opportunities

- Significant investment in additional capacity planned for Southampton (and to a lesser extent, Dover)
- Lower Thames Crossing will have significant impact on flows to/from Dover
- Government policy on free ports may offer opportunities for investment



### Weaknesses

- Significant barriers to rail freight using Channel Tunnel/Port of Dover
- Rail capacity constraints on routes serving channel ports
- Limited room for capacity expansion (affects several gateways)
- Gaps in highway network (e.g. A2 Dover)

### Challenges

- UK exit from the European Union
- Decarbonisation is especially hard for:
  - Road freight
  - Aviation
  - Shipping
- Managing last mile freight demand (which has grown during the COVID-19 pandemic)



## Part 3c

# Problem Statements

# Problem Statements

## Global Issues

1. Transport is not decarbonising fast enough.
2. Climate change threatens the resilience of transport networks.
3. Freight is heavily reliant on highways, especially for first-mile-last-mile deliveries.
4. Numerous parts of the Outer Orbital area have unacceptably poor socioeconomic outcomes.
5. There is a recognised need for housing and communities – but in the right places, supported by the right infrastructure, planned to deliver sustainable transport outcomes.
6. The mobility benefits of new technologies are not accessible to everybody.

## Coastal Communities

7. Poor connectivity is holding coastal communities back
8. The geography of the South Coast and its transport networks forces people and goods moving east – west along the coast to travel long distances inland to complete their journeys.

## Access and Affordability

9. Rural communities are being left behind in digital, active travel, and public transport connectivity.
10. Too many transport services and networks are inaccessible to all users.
11. For many people, public transport fares are too high and too complicated.

## Active Travel

12. Cycling participation and provision is too low and there are strategic gaps in the parts of the area's cycle network.

## Mass Transit

13. Current public transit systems do not meet all the needs of the area's largest conurbations.
14. There are too few strategic mobility hubs, offering high quality integration and interchange between different transport services, outside town and city centres.
15. Public transport information and ticketing arrangements are not sufficiently coordinated nor adequately integrated, particularly across transport modes.

## Highways

16. The area's major highways do not provide effective east – west connectivity.
17. The area's major highways run through and/or close to protected areas, undermining the quality of local environments.
18. Too many major highways pass through densely populated communities, causing noise, pollution, and severance issues.
19. Highway traffic accessing ports in the area is negatively impacting the environment in town and city centres.
20. There are too many level crossings on major highways along the South Coast.

## Rail

21. East – west rail connectivity (journey times and frequency) is poor, especially compared to radial rail services.
22. Rail capacity is insufficient to accommodate the needs of long-distance passenger, local passenger, and rail freight customers in the area.
23. The Marshlink railway is inadequate to meet future aspirations for stakeholders in East Sussex and Kent.

# 1 Transport is not de-carbonising fast enough

**While key stakeholders in the Outer Orbital area recognise the need to decarbonise their transport systems, this is not happening fast enough.**

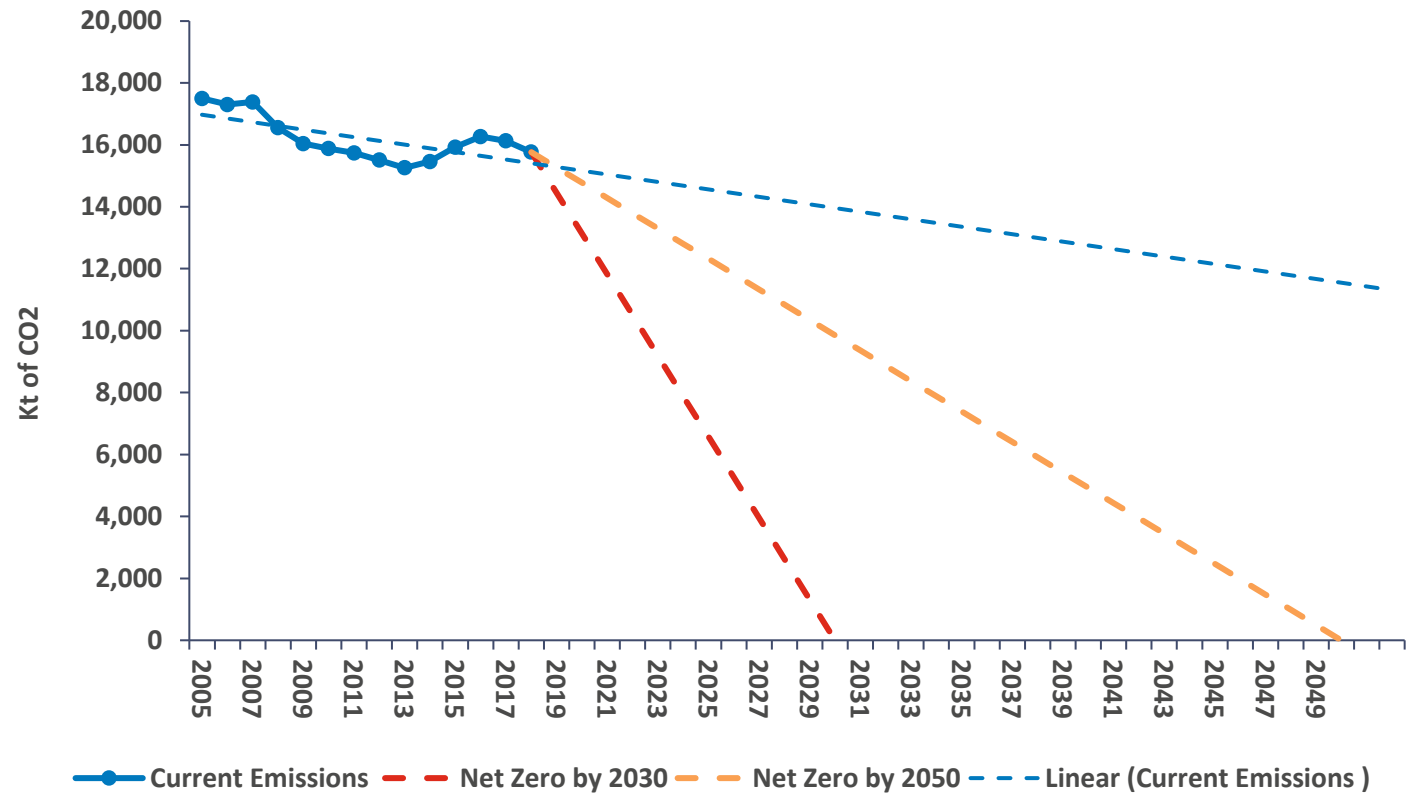
The trajectory shown in the figure to the right indicates, the South East will not reach a position of net-zero carbon emissions by transport by 2050 – which is now a legal requirement supported by domestic legislation and international agreements (e.g. Paris).

Several Local Transport Authorities in the South East have committed to more aggressive decarbonisation targets (e.g. reaching net-zero by 2030).

Electric vehicle take-up is low and there are some areas with very poor access to charging points. A step change in the electrification of highway transport and modal shift away from fossil fuel transport to electric/healthy transport is needed if the area is to reach its climate commitments.

The South East's rail network, on the other hand, is almost entirely electrified and is therefore well placed to help the South East achieve these ambitious targets.

Carbon Emissions Trajectory for the South East Area



Source: Steer analysis



The transport networks serving the Outer Orbital area are vulnerable to the effects of climate change and in many areas are showing signs of poor resilience.

The South East's transport network cuts across several areas that are already vulnerable to flooding and temperature extremes. Some of these “funnel” significant flows over bridges and cuttings that do not have adequate diversionary routes (and creating better routes would be costly). For example, the A259 runs close to the coast in many places, and some sections of the A27 run through several flood plains. The South East's railway network is relatively old and features numerous tunnels and cuttings. Some sections, such as Folkestone Warren (see right), are particularly vulnerable to the elements. Climate change is likely to increase the frequency and strength of weather events (and extreme heat in summer). The outcome of this problem is increased operations, maintenance and renewal costs, which will be borne by transport users and wider society.

Folkestone Warren



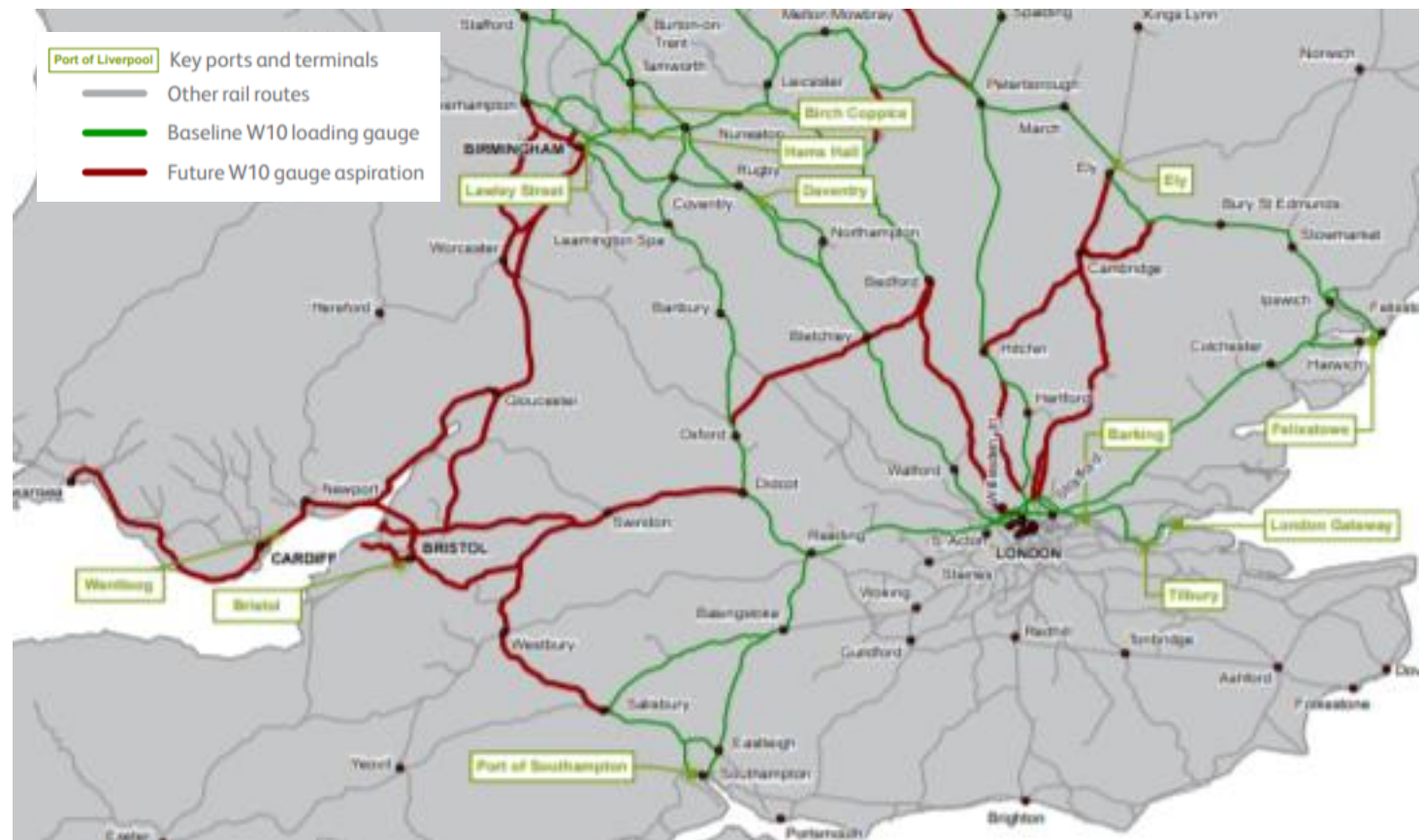
Source: Network Rail, <https://www.networkrail.co.uk/stories/the-great-fall-historic-landslip-images-resurface/>

### Freight is very reliant on highways and rail freight is losing ground.

Rail freight mode share is low nationally (around 5%, based on tonnage) and appears to be in decline. According to the ORR, in the last 16 years the number of freight train movements on the national network has fallen by 50%. An electric rail freight sector should be well placed to provide a low carbon alternative – although it is recognised freight is in competition with passenger rail for timetable paths.

It should be possible to achieve higher mode shares. For example, rail mode share on freight passing through Southampton is reportedly 40%. However, there are significant barriers to rail freight in the South East, particularly for routes to/from the Channel Ports. These barriers include a lack of freight terminals, poor access across London, high access charges on High Speed 1 and the Channel Tunnel. Inadequate gauge clearance also affects rail routes serving Dover (see right). Network Rail aspires to create a route between the Channel Ports and the Midlands to address this constraint.

### Rail network gauges (2017)



Map source: Network Rail, freight Network Study, <https://www.networkrail.co.uk/wp-content/uploads/2017/04/Freight-Network-Study-April-2017.pdf>  
 Freight statistics source: <https://dataportal.orr.gov.uk/media/1738/freight-rail-usage-performance-2019-20-q4.pdf>

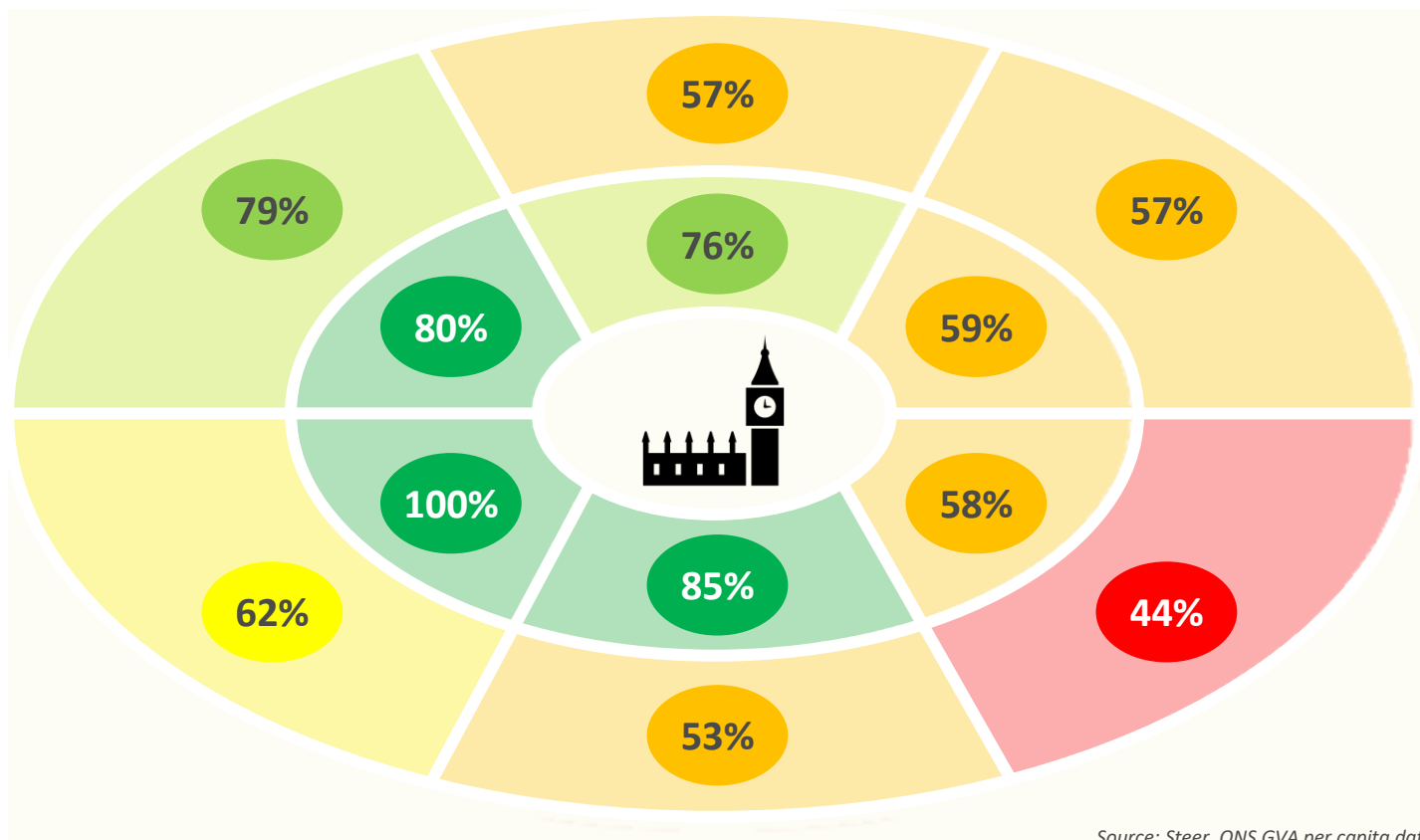
**Analysis of key socioeconomic data shows the further one moves east and away from London, the poorer the outcomes (see right).**

The Outer Orbital area has experienced a decline in traditional industries and, more recently (along with the rest of the UK), has been severely impacted by the 2020 COVID-19 pandemic. The UK's exit from EU in 2021 will pose further challenges.

While there may be some “upsides” that emerge from the 2020 pandemic (e.g. growth in cycling, homework, and “15 minute neighbourhoods”), it may take many years for the economy to recover from the extraordinary events of 2020. The public transport system, which has seen very significant reductions in patronage and revenue, will need government support to survive in a post COVID-19 world.

If the government's vision for “levelling up” the economy is to be realised, it will be increasingly important to continue to make a strong case for investment in the most deprived areas of the Outer Orbital area (and the rest of the South East).

**Average GVA per capita around the South East, where South West/Inner = 100**



Source: Steer, ONS GVA per capita data  
South West / Inner Orbital zone = 100%  
Icon Credit: Pham Duy Phuong Hung



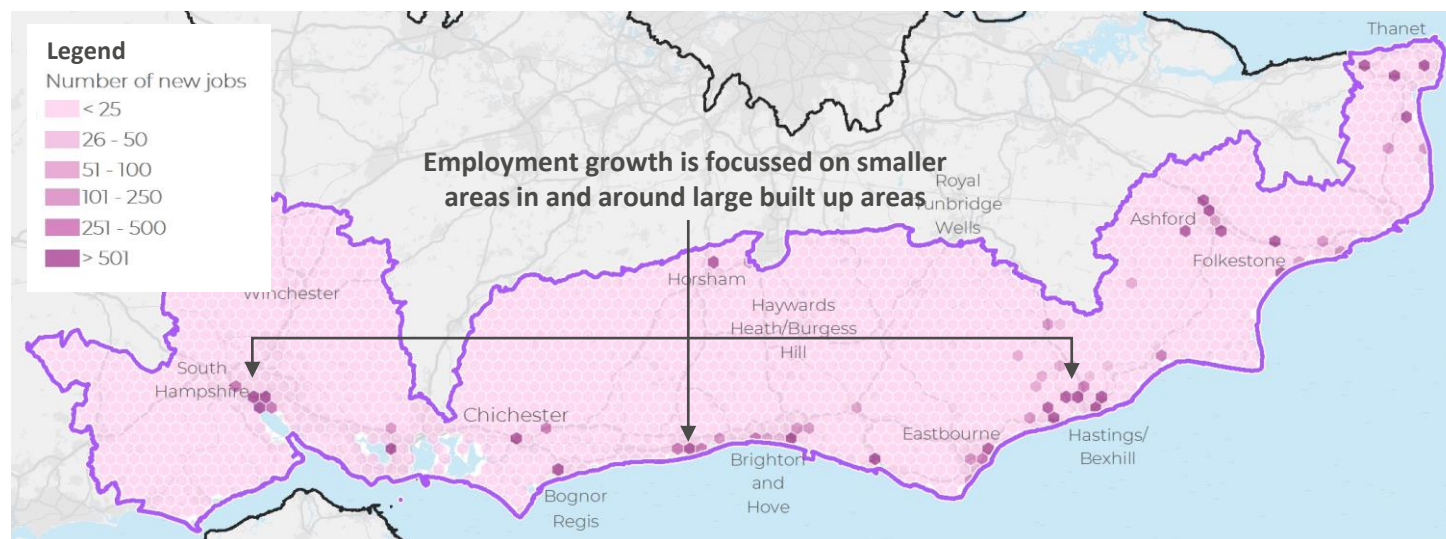
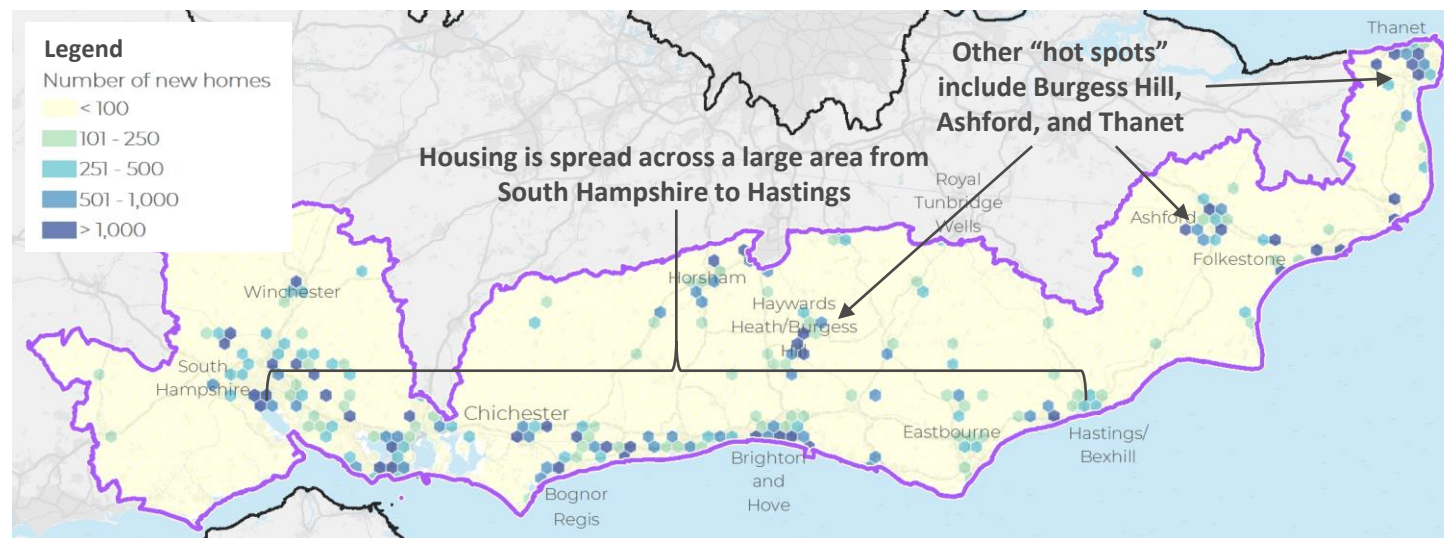
There is a recognised need for housing and communities – but in the right places, supported by the right infrastructure, planned to deliver sustainable transport outcomes.

The fragmented nature of the planning system makes it difficult to integrate spatial, transport, and economic planning. The area is also heavily constrained by the landscape and layout of urban areas.

To accommodate a possible 400,000 new residents there may be a need for additional housing and employment – and this is planned (see right). Recent discussions with government suggest this figure may grow, albeit with more of a focus on delivery in urban areas.

There is risk that housing growth will result in unsustainable transport patterns as many housing developments are being delivered, some distance away from shops, town/city centres, commercial services, public services, employment sites, and transport hubs.

## Local Plan projections for housing and employment growth



Source: Steer analysis of Local Plan data (provided by Local Planning Authorities)



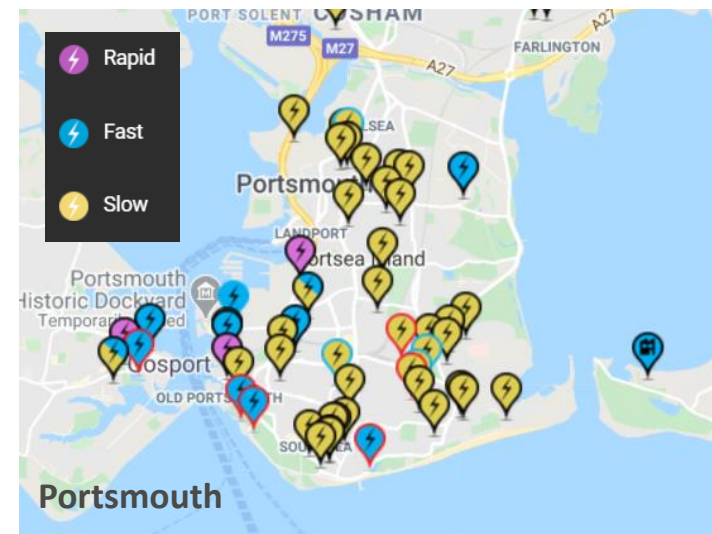
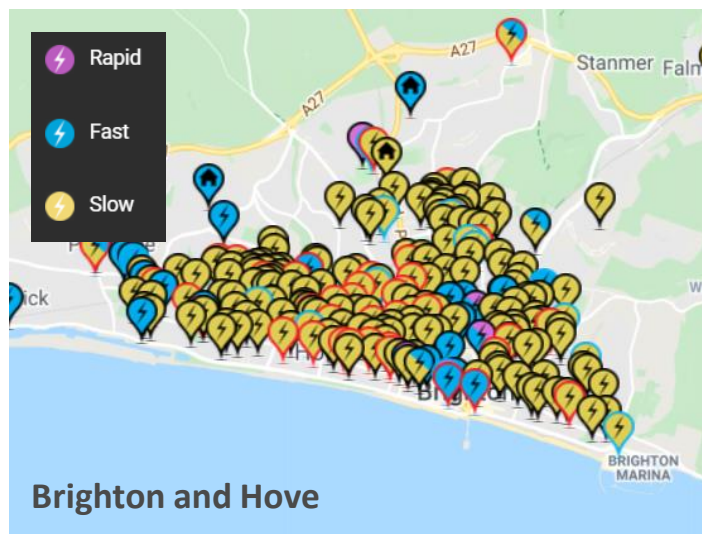
## 6 The mobility benefits of new technologies are not accessible to everybody

There are significant gaps in infrastructure to support future technologies – notably electric vehicle charging infrastructure.

Evidence from Zap Map (see right) shows there is a significantly higher provision of electric vehicle charging point in urban areas such as Brighton and Portsmouth than there are in less densely populated (but still semi-urban) areas such as Deal and Bexhill. While it is acknowledged this reflects higher levels of on street parking in areas like Brighton City Centre, it appears that more deprived areas (such as Bexhill) are less well served than more prosperous suburban areas, such as Ashford, Horsham, and Burgess Hill.

This trend underlines the risk of technology contributing to – rather than helping address – rural and socioeconomic inequality in the Outer Orbital area.

Zap Map locations of Electric Vehicle chargers (all at the same scale)



Source: Zap Map <https://www.zap-map.com/live/>

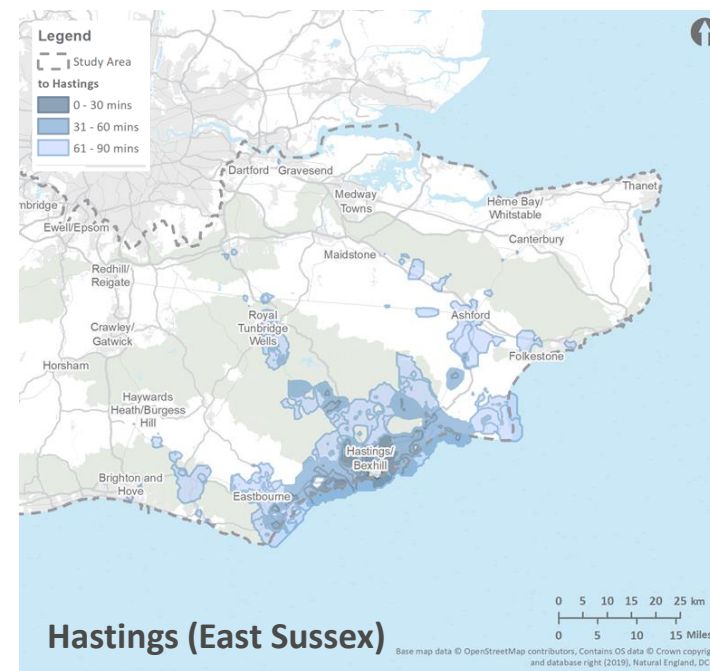
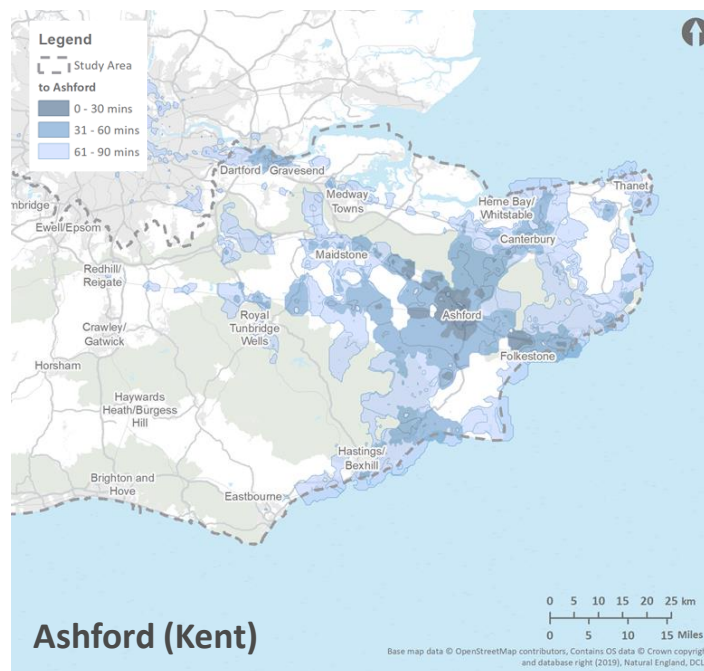
**Some of the most deprived communities on the South Coast are less well connected than nearby, more prosperous neighbours.**

For example, Ashford enjoys high levels of public and highway connectivity compared to nearby Hastings and Thanet (see right). Portsmouth is less well connected to London and other parts of the UK than nearby Southampton. Communities living on peninsulas (e.g. Hayling Island) and Islands (e.g. Portsmouth) also face similar connectivity challenges.

Furthermore, recent and planned investment on corridors tend to be more focussed on radial corridors (serving London and the Channel Ports), which exacerbates the connectivity gap between Ashford and Hastings.

The link between socioeconomic outcomes and transport investment is complex. However, it is widely believed that poor connectivity means places like Portsmouth and Hastings have to “work harder” to secure the investment in opportunities that these places deserve.

## Public transport catchment areas for Ashford and Hastings (end to end journeys)



Source: Steer analysis

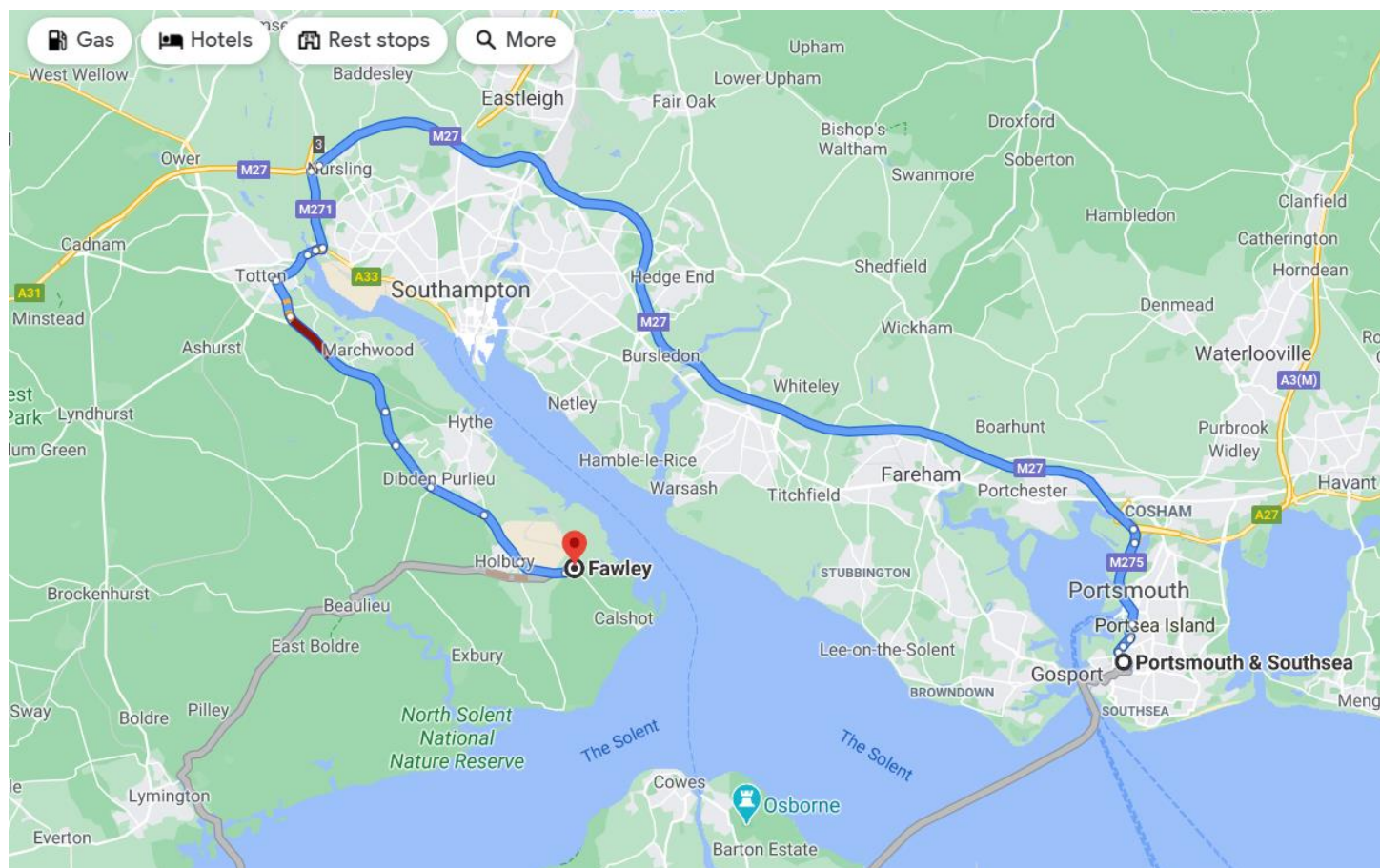


The geography of the South Coast and its transport networks forces people and goods moving east – west along the coast to travel long distances inland to complete their journeys. Journeys therefore take much longer to complete.

Several Major Economic Hubs in the Outer Orbital Area are situated on islands (e.g. Portsmouth) and/or river estuaries (e.g. Southampton). Many east – west journeys within and between these hubs require travellers to move inland (e.g. along the A326), across the Strategic Road Network (e.g. M27), and back out towards the coast (e.g. M275 in Portsmouth). For the example illustrated to the right, a journey between two points that are 12 miles apart “as the crow flies” requires a 37 mile / 1 hour round trip.

Similar issues exist in Sussex, although this is more driven by the geography of the highway and railway networks. For example, a journey from Bognor Regis to Littlehampton by rail requires travelling up one branch line, along the West Coastway, and then down another branch line.

## Example of long journeys shaped by the geography of the South Coast



Source: Google Maps

## Rural communities are being left behind in digital, active, and public transport connectivity

**Rural communities in the Outer Orbital area have significantly poorer access to public transport, Mobility as a Service providers, and high-speed broadband compared to urban areas.**

This means it will be harder for rural communities to:

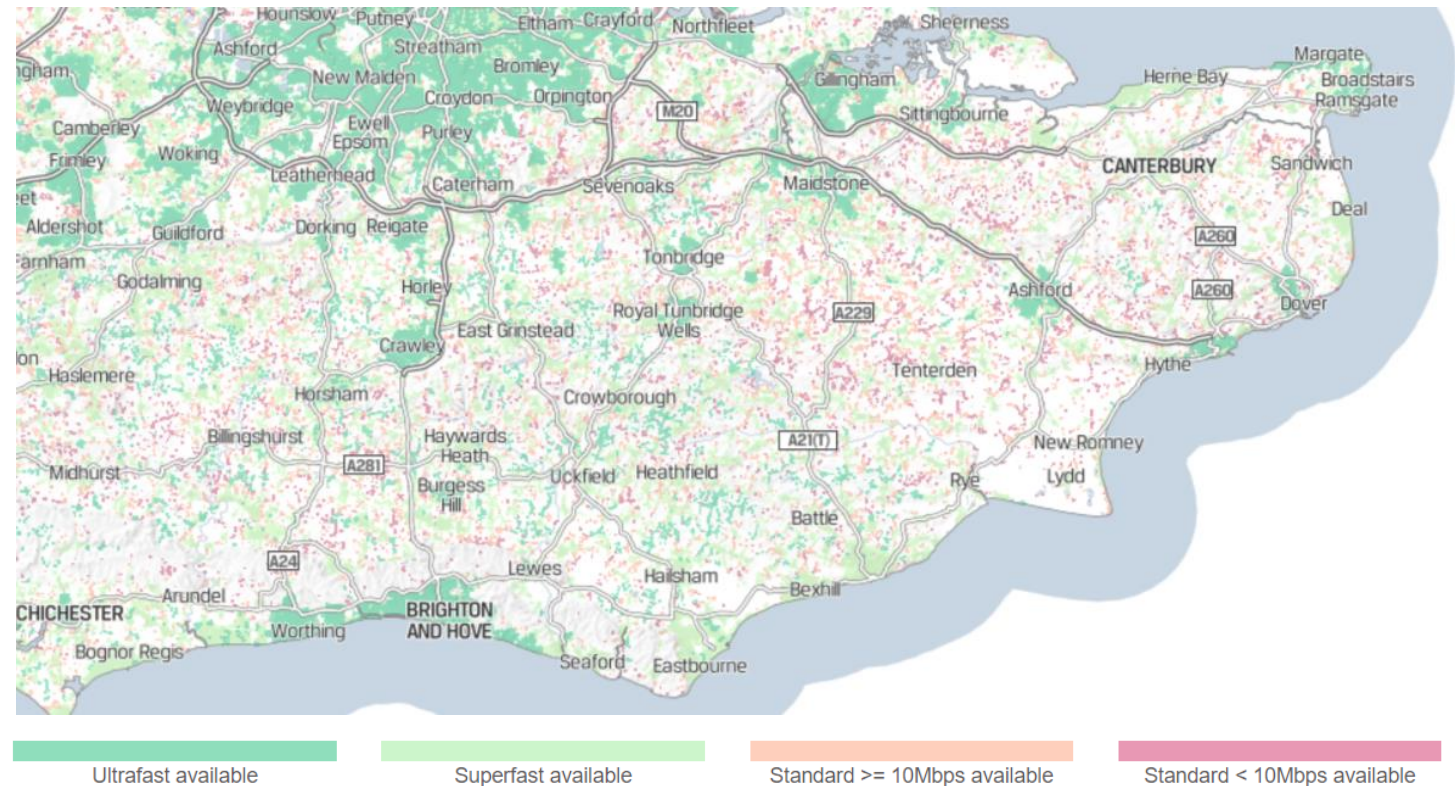
- Work remotely;
- Access future mobility technologies;
- Access emerging Mobility as a Service services;
- Access public transport networks; and
- Attract businesses that rely on technology and/or public transport.

This promotes a high reliance on private motoring in rural communities.

While many rural areas are prosperous, there are pockets of high levels of deprivation in rural parts of the Outer Orbital area.

There is also a risk that inequality in access to broadband will result in wider inequality in socioeconomic outcomes.

## Broadband connectivity



Source: OfCom Broadband Coverage Map <https://checker.ofcom.org.uk/broadband-coverage>



## 10 Too many transport services and networks are inaccessible to all users

While there has been good progress in improving accessibility in recent years, significant issues remain.

Accessibility – in the broadest terms – is a key barrier to many users. The Williams Rail Review identified this is a key challenge for the rail industry.

The DfT's "Access for all" programme has unlocked some investment in some rail stations. However, as the table to the right shows, there is a need for more progress.

Other examples where improvements should be considered include:

- Improving the accessibility of bus fleets and rail rolling stock;
- Making it easier to plan, buy, and use public transport services;
- Improving access to public transport for passengers with hearing, vision, and/or cognitive needs;
- Improving walking and cycling facilities (many people with additional needs rely on cycles as their primary form of mobility); and
- Making public spaces (e.g. town centres) more accessible.

Disability provision at train stations (% stations offering provision at January 201)

	Accessible ticket machines	Accessible ticket office	Train ramp access	National Key toilets	Step free access	Mobility set down
<b>Great Britain</b>	<b>53%</b>	<b>21%</b>	<b>73%</b>	<b>18%</b>	<b>61%</b>	<b>28%</b>
East of England	80%	17%	73%	33%	72%	23%
East Midlands	39%	17%	41%	20%	77%	16%
London	87%	33%	60%	24%	44%	24%
North East	24%	13%	98%	13%	84%	47%
North West	16%	18%	96%	8%	63%	17%
South East	89%	24%	79%	32%	56%	46%
South West	51%	15%	74%	22%	57%	60%
West Midlands	37%	16%	82%	25%	67%	33%
Yorkshire and the Humber	24%	8%	99%	8%	67%	34%
Scotland	40%	27%	35%	4%	51%	10%
Wales	37%	18%	94%	10%	79%	17%
<b>Key</b>	<b>Lowest proportion of stations</b>			<b>Highest proportion of stations</b>		

Data from National Rail Enquiries, Knowledgebase XML API, accessed 24 January 2019

## 11 For many people, public transport fares are too high and too complicated

Many stakeholders in the South East have cited the price of rail tickets and the complexity of ticketing as a disincentive to travelling by rail.

The perception that rail fares are high means it is harder to persuade people to change from the car to rail. This is particularly the case for families.

While Season Tickets offer better value for money (if they are used in full), headline figures of £6k+ annual season tickets is off-putting to many and may disincentivise people from moving to the South East.

The complexity of the tickets offered also puts people off using the railway. As an example: a myriad of different fares are offered between Gatwick and London. The Williams Rail Review has identified the complexity of fares as an issue.

It is acknowledged that this is a complex topic and there are excellent examples of low fares available during off peak periods, particularly on longer distance journeys. However, the long distance rail market is relatively small in the South East, so these opportunities are less available.

### Real terms increase in costs of public transport and motoring

Retail Prices Index (RPI): Bus and coach fares, rail fares and motoring expenditure, 1987–2019<sup>25</sup>



Source: Vouchercloud, <https://www.vouchercloud.com/resources/train-prices-across-europe>

The existing cycle network is not at a consistent standard does not support wider cycling participation, and there are strategic gaps in the parts of the area's cycle network.

Sustrans were recently forced to downgrade sections of the National Cycle Network (NCN) in this area due to the deteriorating safety risk on cycling corridors in these areas.

TfSE analysis has shown a lower proportion of residents in the South East live close to the NCN than residents in neighbouring regions. The TfSE strategy also presents data showing that fewer than 1 in 5 residents cycle once or more a week. Every Local Transport Authority on this corridor wants to see a step change in cycling participation in their areas, but the infrastructure is not available to support this ambition. Furthermore, cycling infrastructure is seen as an enabler for new technologies such as electric bikes/scooters. A lack of infrastructure could be holding the region back from the opportunities these technologies offer.

### The National Cycle Network between Chichester and Bexhill



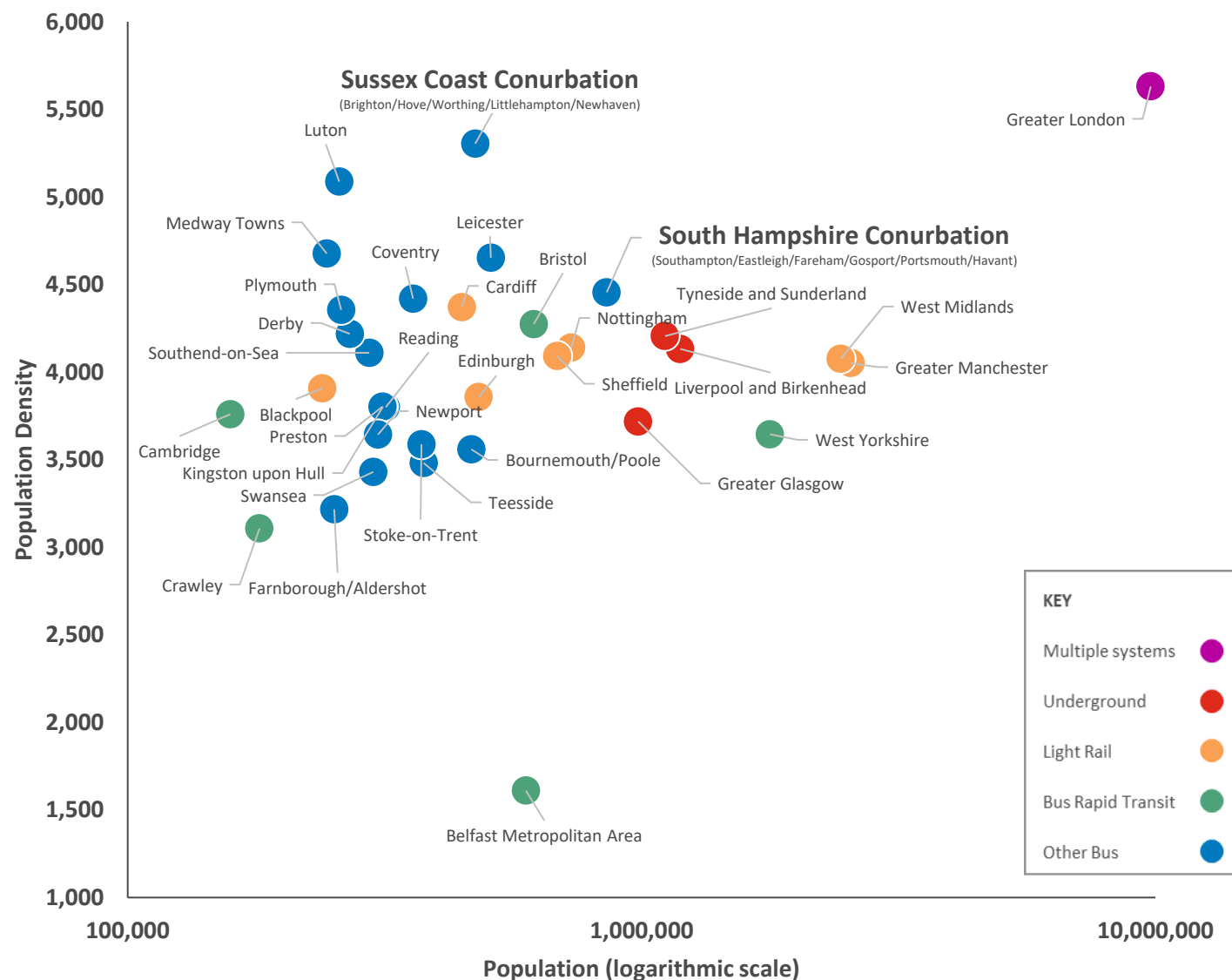
Source: Sustrans, "Paths for Everyone", <https://www.sustrans.org.uk/about-us/paths-for-everyone/>

Map: <https://www.openstreetmap.org>

### The South Hampshire and the “Sussex Coast” conurbations Areas do not have highly developed mass transit systems

Given the relative size and density of the Outer Orbital area's largest conurbations, it is striking that neither South Hampshire nor the Brighton/Hove/Worthing/Littlehampton/Newhaven (“Sussex Coast”) built up areas have mass transit systems such as Light Rapid Transit, Bus Rapid Transit, or underground systems. Instead, these conurbations rely on conventional buses, which deliver slower journeys than alternative systems, and suburban rail services, which are relatively infrequent, are not available to all, and do not adequately serve commercial centres. This means residents in these conurbations do not benefit from the accessibility, connectivity, and quality of mobility that is available in other cities. This forces residents and business to rely on the car and/or relatively slow (i.e. <8mph average speed) bus service, which undermines the competitiveness of the area's largest cities and the quality of life of its residents.

#### Mass transit systems in major conurbations in the UK



Source: Steer analysis



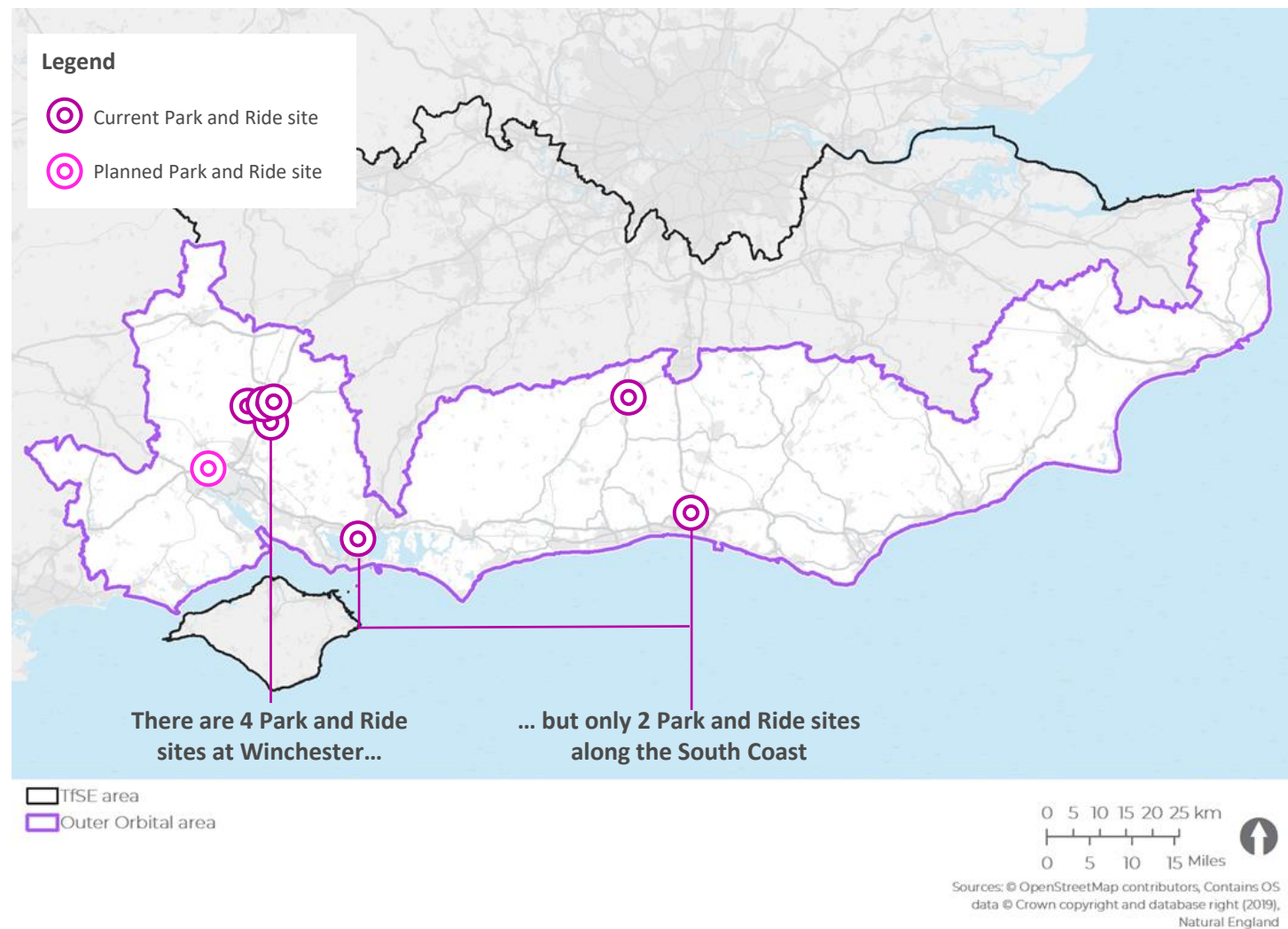
**Strategic Mobility Hubs** are transport hubs that enable interchange between modes. Ideally, they should offer easy access to strategic highways, railways, and local public transport services.

Many existing hubs take the form of Park and Ride facilities, but the vision for these hubs is that they evolve to include freight interchange and service hubs.

There are currently only two Park and Ride facilities serving the towns, cities, and conurbations on the South Coast (a further one is planned). The facility at Brighton is also relatively small, with fewer than 200 spaces. This means motorists are forced to travel into the centre of urban areas to park their vehicles. This generates noise, congestion, and poor air quality, which undermines the quality of the urban environment.

Ideally, visitors and commuters would be able to complete their whole journeys by public transport and/or active travel. But this is impractical for many, particular for those who live in rural and suburban areas.

## Park and Ride Sites in the Outer Orbital Area



## Public transport information and ticketing arrangements are not sufficiently coordinated nor adequately integrated, particularly across transport modes

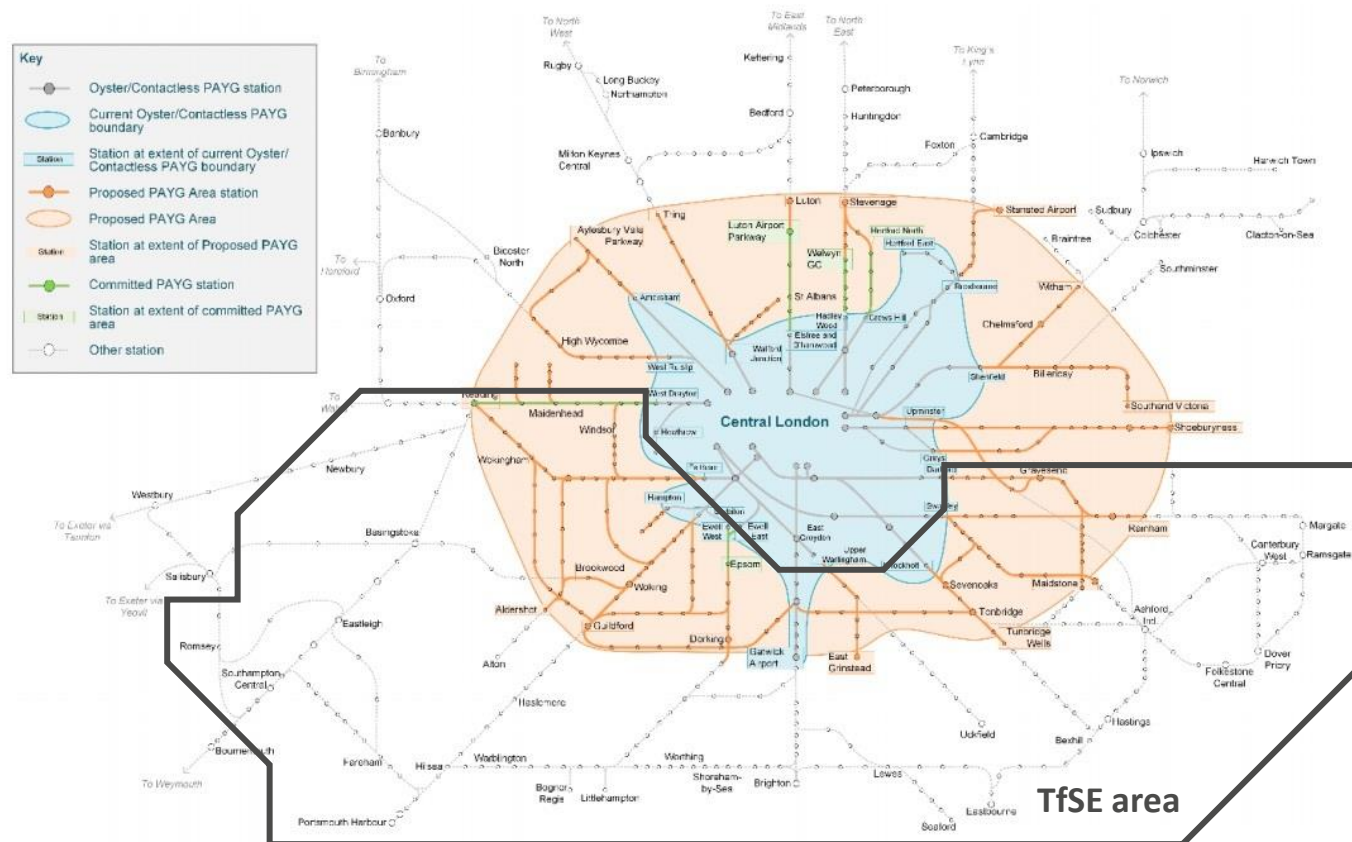
Parts of the South East are included in the London Travelcard area and are included in Transport for London's contactless travel arrangements. However, outside the London area, there are few examples of:

- Integrated journey planning tools;
- Integrated, multi-modal fares (noting some areas have access to PlusBus);
- Zonal fares systems (e.g. centered on Solent and/or the Sussex Coast conurbations); and
- Integrated, multi-modal payment systems.

All the above makes it harder to plan, pay for, and complete multi-modal journeys in the South East.

None of the conurbations in the South East are currently served by dedicated multimodal planning apps – although this is a fast-developing area of interest and third parties may provide a solution soon.

### Extent of London Pay-As-You-Go payment systems in South East England



Source: Department for Transport "Pay-as-you-go on rail" consultation (2019), [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/776998/payg-rail-consultation-doc.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/776998/payg-rail-consultation-doc.pdf)

Many stakeholders would like to see the South Hampshire and Brighton & Hove conurbations connected by a high-quality strategic highway.

However, the current condition and discontinuous nature of the road means it falls far short of the standard needed to fulfil this role, notably between Chichester and Shoreham and East of Lewes.

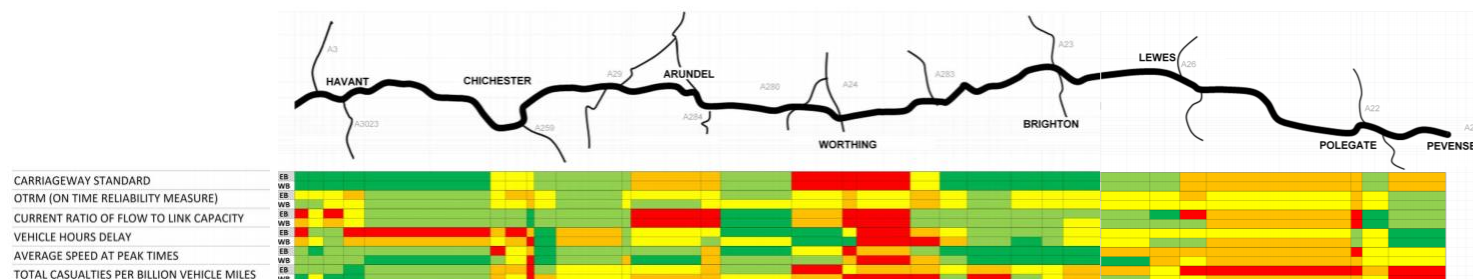
There are many issues with congestion, poor air quality, noise, poor safety, and poor local access/severance along this corridor. These issues undermine the competitiveness of bus and coach and can delay important freight movements. With significant housing planned along this corridor, the issues currently observed on this corridor are expected to worsen.

The issues described above affect multiple highways. While the A27 (illustrated to the right) is regularly highlighted as a strategic issue, there are also localised issues at junctions on the M27 as well as on feeder roads to the Strategic Road Network and at multiple locations on the Major Road Network (notably the A259).

## Congestion hotspots



## Connectivity gaps (highway quality between Chichester and Brighton)



Source: DfT A27 Feasibility Study  
<https://www.gov.uk/government/publications/a27-corridor-feasibility-study-technical-reports>



**Several major highways encroach on nationally significant protected landscapes at several locations on the corridor, undermining the quality of these environments.**

In Hampshire, several major highways including the A31 and A326 pass through the New Forest National Park, causing significant severance issues.

In West Sussex, the A27 runs close to (and in some areas, through) the South Downs National Park, the Chichester Harbour AONB, a UNESCO Biosphere in Brighton and Hove. The highway undermines the quality of these environments through generating noise, air pollution, landscape scarring, and severance. Furthermore, the poor reliability of the highway often causes traffic to “overflow” onto local routes that run deeper into protected areas and local communities.

In East Sussex, the A27 carries heavy traffic through areas popular with cyclists and walkers, creating safety and severance issues. It is an unhappy compromise for all concerned.

**The A27 south west of Arundel**



Image source: BBC <https://www.bbc.com/news/uk-england-sussex-54550678>



**Many of the Outer Orbital Area's major highways pass through or close built-up areas.**

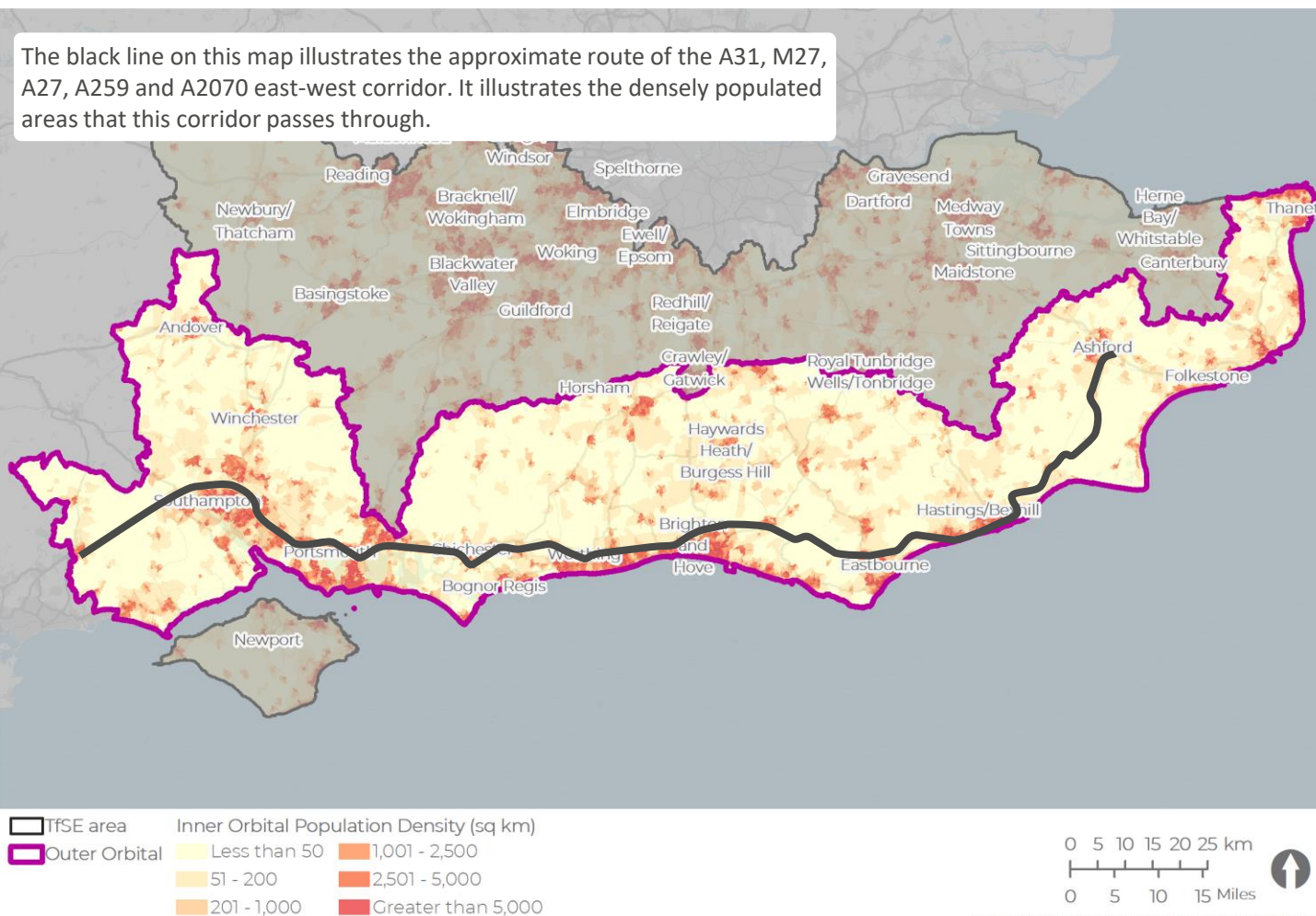
In Hampshire, the M27 cuts through several communities in the Solent area, notably at Hedge End/Whitely/Cosham.

In West Sussex, the A27 runs close to Chichester City Centre and passes through Worthing and Lancing. Many local journeys rely on this highway for local connectivity, which causes conflicts in traffic along the route and, consequently, undermines the attractiveness and viability of public transport and active travel on these corridors (around half of journeys on the A27 at Chichester and Worthing start or finish in their respective local districts).

In East Sussex, the A27 passes through several villages and causes significant severance, noise, and air quality issues for local residents and visitors to the South Downs National Park.

The A259 passes through much of the Brighton and Hove conurbation as well as Bexhill and Hastings.

## Population density and the South Coast highway corridor



Sources: © OpenStreetMap contributors, Contains OS and ONS data © Crown copyright and database right (2021), Natural England

The Outer Orbital area is home to some of the busiest ports in the UK. Many of them have developed in densely populated built up areas.

Most ports are connected by Strategic Road Network highways that carry heavy freight traffic through urban areas. This causes local issues with air quality, noise, and severance.

This issue can be observed at:

- The **Port of Dover**, which is served by the A20, which passes through the Town Centre;
- The **Port of Newhaven**, which is accessed through a gyratory that passes through Newhaven Town;
- The **Portsmouth International Port**, which while served by the M275, faces some issues where this corridor at major junctions and Port entrances;
- The **Port of Shoreham**, which is not directly served by the Strategic Road network; and
- The **Port of Southampton**, which is planning to expand to Fawley.

The A20 at Dover



Image source: Gareth Fuller/PA, <https://www.chesterstandard.co.uk/news/national-news/18617496.giant-post-brexit-lorry-park-bad-news-uk-business-labour-says/>



## There are multiple issues with level crossings on strategic highways along the South Coast.

The A259 between Hastings and Ashford (East Sussex/Kent) is particularly hazardous in places, as shown in the image to the right. There are several steep inclines, tight bends, and level crossings on this highway between Hastings and Ashford. These present significant safety risks for all users on this highway.

There are also issues with level crossings on the local roads that feed into the A27, A29 and A259 corridor in Brighton and Hove, West Sussex, and Hampshire.

Highways England and Network Rail are considering options to realign the highway to avoid level crossings. These improvements could be delivered alongside improvements to the A259 railway.

### Star Level Crossing (A259/Marshlink Railway)



Image source: UK Level Crossing Crossings channel, YouTube <https://www.youtube.com/watch?v=aN2C6dPtDEo>

### East-West and cross-country railway connectivity is poor.

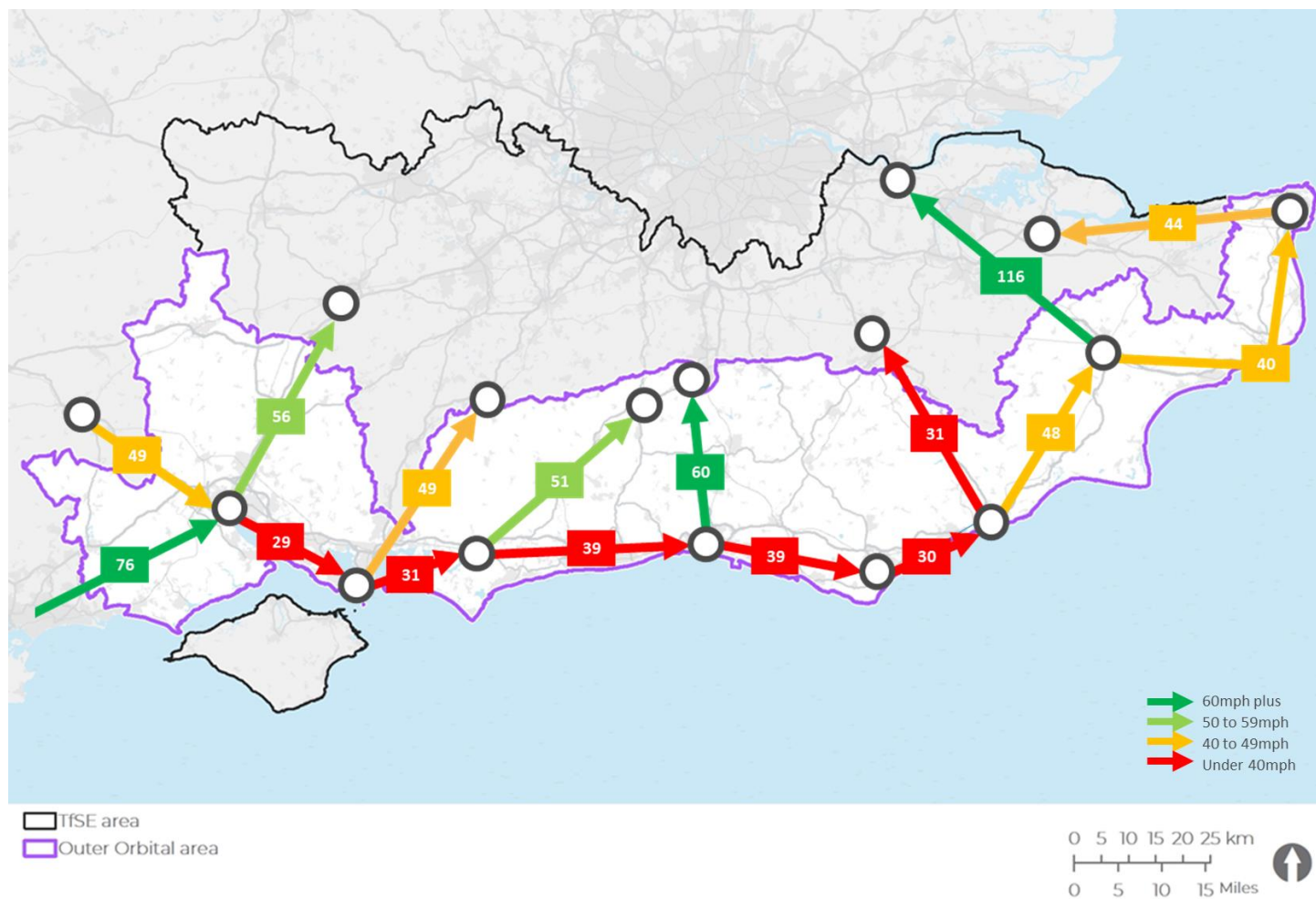
Railway journeys on radial routes from South Coast stations to London and beyond are 50% faster than journeys along the coast. Service frequencies are also lower and/or irregular.

In particular, the West Coastway Line struggles to perform its role as a short distance urban metro service between Littlehampton and Brighton and as a major cross-regional corridor between Southampton and Brighton.

Similarly, journey times by rail between Portsmouth and Southampton are very poor (42 minutes compared to 25 minutes between Southampton and Bournemouth). This undermines the competitiveness of rail in the area.

Furthermore, there is relatively poor integration between South Coast rail services and local bus services. This is particularly evident in fares, retail, and ticketing (integrated tickets and zonal fares are only available for London services).

### Average speed for selected journeys on the South Coast rail network



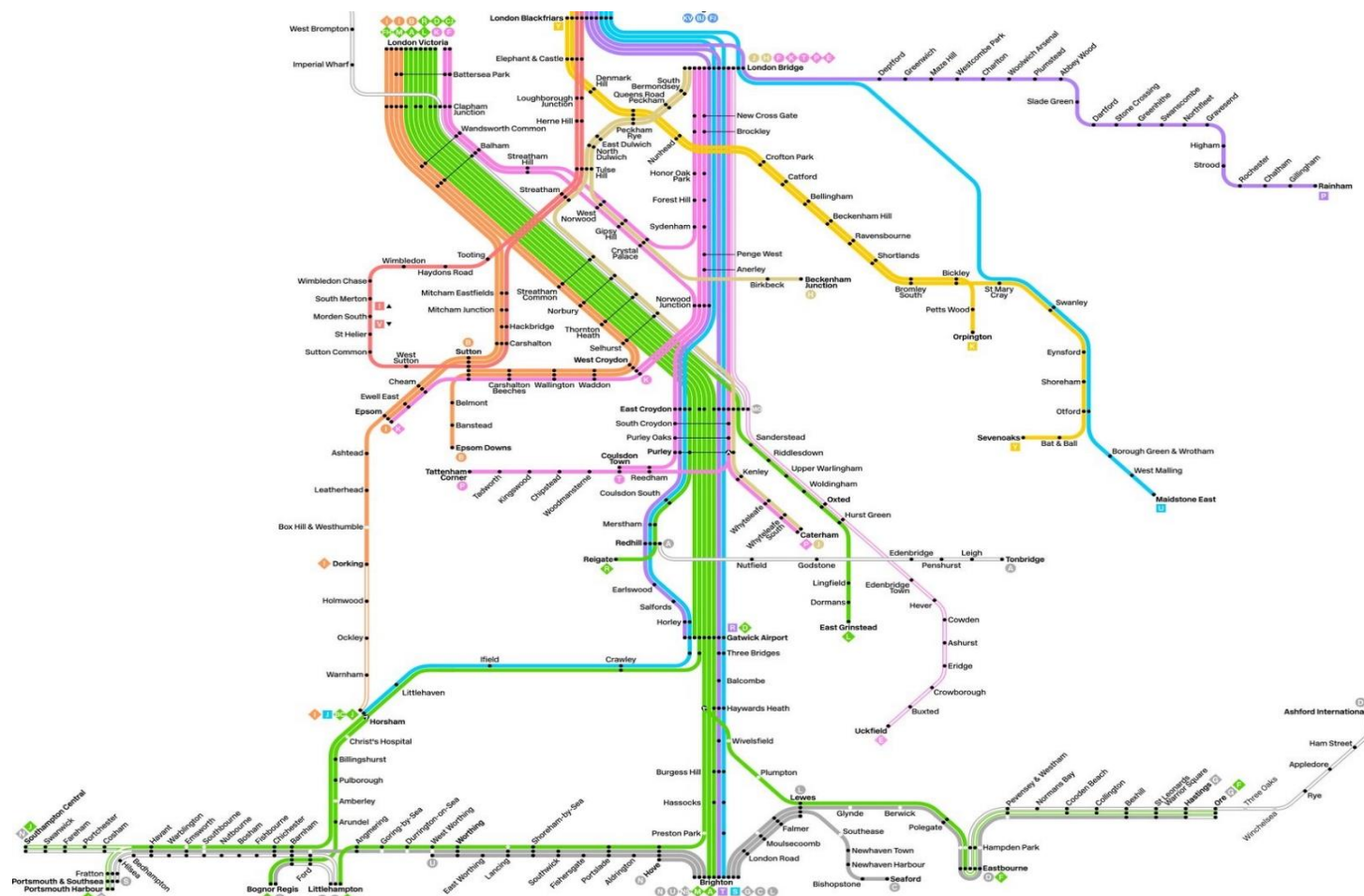


**Rail capacity is insufficient to accommodate the needs of long-distance passenger, local passenger, and freight customers in the area.**

The railway timetable is designed around constraints on radial corridors to ensure that services operating from locations such as Littlehampton and Brighton through central London (and beyond) are timed to accommodate capacity bottlenecks closer to London. The rest of the timetable has to “fit around” whatever is left over from this capacity allocation process. The figure to the right illustrates the challenges planners face in balancing radial and orbital journeys on the Brighton Main Line. In recent years, several “paths” (e.g. “slots”) that used to support cross country services (e.g. Portsmouth/Brighton – Reading/Midlands/North) have been reassigned to radial services.

This means communities that rely on orbital rail services are less well served than communities served by radial routes. It also undermines the competitiveness of rail on these corridors, which encourages longer distance travellers to drive instead.

## Thameslink, Southern and Great Northern franchise services



Source: Project Mapping <http://www.projectmapping.co.uk/Reviews/Resources/TSGN%20Travelling%20Wolf.jpg>

**The Marshlink railway is slow, unelectrified, and has low capacity (due to sections of single-track rail).**

Operating services on this “island” of diesel operation is expensive and inefficient.

The railway offers poor east-west connectivity for the communities it serves. It also contributes to the relative “isolation” of Bexhill and Hastings. Stakeholders believe this connectivity gap makes it harder to attract investment to these towns.

There are aspirations to use this railway to run high speed services from London St Pancras to Hastings, Bexhill, and Eastbourne via Hastings. This would help develop Ashford as an international transport hub (and strengthen the case for the long-term sustainability of international rail services at this station). However, the quality (and traction) of this railway presents a significant barrier to this project.

### The Marshlink Line



*Image source: Brian Green, CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=13054175>*



## Part 4

# Objectives





# Part 4a

## Vision

# Vision

TfSE’s Transport Strategy for the South East sets out an ambitious vision for a sustainable, high performing, net-zero transport system. We have applied this vision to the Outer Orbital area to develop a vision statement for this area.

## TfSE Vision Statement

By 2050, the South East of England will be a leading global region for net-zero carbon, sustainable economic growth where integrated transport, digital and energy networks have delivered a step change in connectivity and environmental quality.

A high-quality, reliable, safe and accessible transport network will offer seamless door-to door journeys enabling our businesses to compete and trade more effectively in the global marketplace and giving our residents and visitors the highest quality of life.

## Outer Orbital Vision Statement

We will leverage technology, behavioural change policies, integrated planning policies, and interventions in the Outer Orbital area’s transport, energy, and digital networks to deliver sustainable economic growth and improved socioeconomic outcomes for the area’s residents, businesses, and visitors.

We will prioritise interventions in transport, digital, and energy networks that:

- decarbonise the transport system and support the principles of environmental net gain;
- deliver strategic and local access and connectivity to ensure the needs of the Outer Orbital area’s residents, business, and visitors are met; and
- provide holistic solutions that support the development of sustainable communities, improve the health of residents, and enhance the successful qualities of the area.

We will use innovative and exemplar delivery models, schemes, and investment packages that – through tailored governance and funding models – support integrated high-quality, reliable, safe and accessible transport networks.

We will ensure the Outer Orbital area is best placed to respond to the challenges of recovering from the COVID-19 pandemic, adapting to new trading arrangements with the European Union, and fighting the climate crisis.



## Part 4b

### Objectives



# Objectives (1 of 2)

A high performing, multi-modal transport system will ensure this study helps deliver the following six objectives:

## Climate Change

The Outer Orbital area’s transport systems will move to net zero carbon and minimise disruption from climate change by:

- Reducing the need to travel;
- Enabling and growing active travel;
- Shifting passenger and freight travel from fossil fuel traction to zero emission traction;
- Improving transport network energy efficiency; and
- Improving transport network resilience to climate events.

## Safety

The Outer Orbital area’s transport systems will be safe for all users and will give them confidence and security to walk on, or cycle on, or cross any of the area’s highways. We will do this by:

- Providing a safe road network with high-quality, fully connected, segregated infrastructure (where appropriate) that helps people overcome their fears of walking and cycling; and
- Prioritising vulnerable users over less vulnerable users where there are conflicts.

## Health and Wellbeing

The Outer Orbital area’s transport systems will minimise adverse impacts on human health and promote healthy living by:

- Developing transport networks that minimise any adverse impacts of transport on human health – including noise and poor air quality;
- Reducing the impact of existing transport networks and traffic on noise, air quality, and human health; and
- Encouraging active leisure activities that promote healthy lifestyles.

# Objectives (2 of 2)

A high performing, multi-modal transport system will ensure this study helps deliver the following six objectives:

Economy	Society	Natural and Historic Environment
<p>The Outer Orbital area’s transport systems will boost prosperity for all and reduce the disparity in socioeconomic outcomes. It will do so in a sustainable manner, and not at “any cost” to society and the environment. It will achieve this by:</p> <ul style="list-style-type: none"><li>• Boosting productivity through better skills matching, knowledge sharing and agglomeration;</li><li>• Improving transport network efficiency, reliability, and resilience;</li><li>• Ensuring digital and energy networks can meet future transport needs;</li><li>• Reducing costs for businesses; and</li><li>• Attracting investment in high growth, high value opportunities.</li></ul>	<p>The Outer Orbital area’s transport systems will enable better and more equitable socioeconomic outcomes:</p> <ul style="list-style-type: none"><li>• Supporting better place-making and creating new sustainable communities;</li><li>• Enabling residents to easily access employment, affordable housing and services – particularly for those who do not have access to a car;</li><li>• Increasing the affordability of convenient, high quality, active travel and public transport options;</li><li>• Improving access for all members of society, especially individuals with additional needs; and</li><li>• Enabling deprived communities to attract investment and achieve more equitable socioeconomic outcomes.</li></ul>	<p>The Outer Orbital area’s transport systems will protect and enhance the natural and historic environment by:</p> <ul style="list-style-type: none"><li>• Adopting the principles of environmental net gain;</li><li>• Avoiding interventions that significantly and permanently undermine protected environments, in particular landscape, historic and ecological designations;</li><li>• Reducing the impact of transport operations on ecosystem services; and</li><li>• Improving public and active transport access to natural, protected, and historic environments.</li></ul>



## Part 4c

### Next Steps

# Next Steps

This report provides a summary of the work undertaken in the second of the five stages underpinning the Outer Orbital area study.

Figure 4.1 shows the stages and steps that are being delivered for this study.

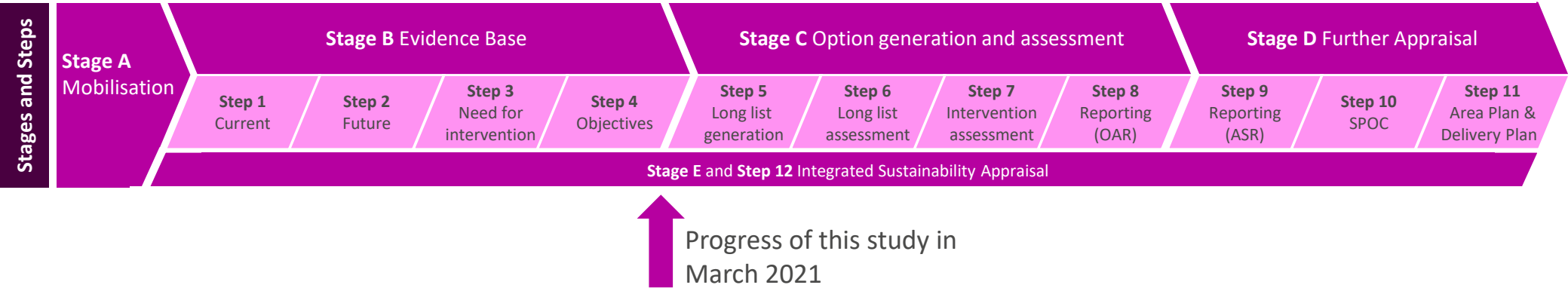
This report concludes **Stage B**, which provides a common understanding of the current and future context, demonstrates a need for intervention in the area, and defines objectives for the Outer Orbital Area Study.

The next stage for this study is **Stage C**. The purpose of this stage is to generate a long list of options in response to the SWOCs and need for intervention identified in Stage A, describe them in a consistent way, and assess them informed by the evidence base, against the criteria included in the Multi Criteria Assessment Framework (MCAF) tool that was developed for the Transport Strategy. This stage is expected to mobilise in December 2020 and report in February/March 2021.

The purpose of **Stage D** will be to produce outputs to make the case (to government and others) for investment in the South East’s transport networks. This will mobilise in spring 2020 and report by mid summer 2021.

Finally, to ensure that each area study meets the vision, goals and priorities of the Draft Transport Strategy, an Integrated Sustainability Appraisal (ISA) will be developed for each of the five Area Studies – shown below as **Stage E** – which will also report by mid summer 2021.

Figure 4.1: Overview of the Outer Orbital area study stages and steps







## Part 5

### Appendices



# Appendix A

## Policy Review

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	The convention has three main aims which are stated in Article 1: <ul style="list-style-type: none"> <li>• to conserve wild flora and fauna and their natural habitats;</li> <li>• to promote cooperation between states; and</li> <li>• to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species.</li> </ul>
Conservation of Natural Habitats and Wild Fauna & Flora (the 'Habitats Directive') (1992)	The identification of a European network of Sites of Community Importance (SCIs) to be designated as Special Areas of Conservation (SACs). A SEA would need to report on any potential effects on SACs and all development plans should aim to avoid adverse effects on them.
Ambient Air Quality Directive	The Ambient Air Quality Directive provides the current framework for the control of ambient concentrations of air pollution in the EU. The control of emissions from mobile sources, improving fuel quality and promoting and integrating environmental protection requirements into the transport and energy sector are part of these aims.
The Paris Agreement (2015)	Aims to limit the global warming change to well below 2°C above pre-industrial levels. However, countries aim to limit the increase to 1.5°C to reduce the impacts of global warming. The EU has committed to a binding target of a reduction of at least 40% in greenhouse gas emissions by 2030 compared to 1990.
The Climate Change Act (2008)	<ul style="list-style-type: none"> <li>• Improve carbon management and help the transition towards a low carbon economy in the UK.</li> <li>• Demonstrate strong UK leadership internationally, showing the commitment to taking shared responsibility for reducing global emissions in the context of developing negotiations on a post-2012 global agreement at Copenhagen in 2009.</li> <li>• Greenhouse gas emission reductions through action in the UK and abroad of at least 80% by 2050, and reductions in CO2 emissions of at least 26% by 2020, against a 1990 baseline. However, more ambitious targets are being set under the Paris Agreement.</li> </ul>
Transforming our World: the 2030 Agenda for Sustainable Development (2015)	<p>Sets a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. It sets 17 Sustainable Development Goals (SDGs) and 169 targets. Applicable goals include:</p> <ul style="list-style-type: none"> <li>• Goal 6 - Ensure availability and sustainable management of water and sanitation for all</li> <li>• Goal 7 - Ensure access to affordable, reliable, sustainable and modern energy for all</li> <li>• Goal 9 - Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation</li> <li>• Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable</li> <li>• Goal 12 - Ensure sustainable consumption and production patterns</li> <li>• Goal 13 - Take urgent action to combat climate change and its impacts</li> <li>• Goal 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development</li> <li>• Goal 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Directive 2000/60/EC of the European Parliament - “The Water Framework Directive” (2000)	<p>The main aims of the Water Framework Directive (WFD) are to:</p> <ul style="list-style-type: none"> <li>• prevent deterioration and enhance status of aquatic ecosystems, including groundwater</li> <li>• promote sustainable water use</li> <li>• reduce pollution</li> <li>• contribute to the mitigation of floods and droughts</li> </ul> <p>The WFD requires the creation of River Basin Management Plans (RBMPs).</p>
A 2030 Framework for Climate and Energy Policies Green Paper (2013)	<p>The framework sets three key targets for the year 2030:</p> <ul style="list-style-type: none"> <li>• At least 40% cuts in greenhouse gas emissions (from 1990 levels);</li> <li>• At least 27% share for renewable energy; and</li> <li>• At least 27% improvement in energy efficiency</li> </ul>
Directive 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste	<p>Waste management in the EU should be improved and transformed into sustainable material management, with a view to protecting, preserving and improving the quality of the environment, protecting human health, ensuring prudent, efficient and rational utilisation of natural resources, promoting the principles of the circular economy, enhancing the use of renewable energy, increasing energy efficiency, reducing the dependence of the Union on imported resources, providing new economic opportunities and contributing to long-term competitiveness.</p>
EU Adaptation Strategy (2013)	<ul style="list-style-type: none"> <li>• Promoting action by member states and supporting adaptation in cities;</li> <li>• Promoting adaptation in vulnerable sectors and ensuring Europe’s infrastructure is more resilient; and</li> <li>• Better informed decision making by addressing gaps in knowledge about adaptation.</li> </ul>
EU Biodiversity Strategy to 2020 – towards implementation (2011)	<p>Aimed at halting the loss of biodiversity and ecosystem services in the EU by 2020, the strategy provides a framework for action over the next decade and covers the following key areas:</p> <ul style="list-style-type: none"> <li>• Conserving and restoring nature;</li> <li>• Maintaining and enhancing ecosystems and their services;</li> <li>• Ensuring the sustainability of agriculture, forestry and fisheries;</li> <li>• Combating invasive alien species; and</li> <li>• Addressing the global biodiversity crisis.</li> </ul>



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
The Environment Bill (2020)	<p>The Environment Bill 2020 sets out how the Government plan to protect and improve the natural environment in the UK and is a key vehicle in the delivery of the 25 Year Environment Plan. It sets a new and ambitious domestic framework for environmental governance on a number of measures including the clean air strategy; biodiversity net gain; trees; conservation covenants; extended producer responsibility for packaging; recycling; a deposit return scheme for drinks containers and water.</p>
25 Year Environment Plan (2018)	<p><b>Biodiversity</b>  The 25 Year Environment Plan outlines the Government's ambition to leave our environment in a better state than we found it and the steps proposed to take to achieve that ambition.  The Plan includes ten key targets of which two focus on biodiversity.  <b>Thriving plants and wildlife:</b></p> <ul style="list-style-type: none"> <li>• Restoring 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term;</li> <li>• Creating or restoring 500,000 hectares of wildlife-rich habitat outside the protected site network, focusing on priority habitats as part of a wider set of land management changes providing extensive benefits;</li> <li>• Taking action to recover threatened, iconic or economically important species of animals, plants and fungi and where possible to prevent human-induced extinction or loss of known threatened species in England and the Overseas Territories;</li> <li>• Increasing woodland in England in line with our aspiration of 12% cover by 2060: this would involve planting 180,000 hectares by end of 2042.</li> </ul> <p><b>Enhancing biosecurity:</b></p> <ul style="list-style-type: none"> <li>• Managing and reducing the impact of existing plant and animal diseases; lowering the risk of new ones and tackling invasive non-native species;</li> <li>• Reaching the detailed goals to be set out in the Tree Health Resilience Plan of 2018;</li> <li>• Ensuring strong biosecurity protection at our borders, drawing on the opportunities leaving the EU provides; and</li> <li>• Working with industry to reduce the impact of endemic disease.</li> </ul> <p><b>Landscape</b>  Goal 6: Enhancing beauty, heritage and engagement with the natural environment, is to "safeguard and enhance the beauty of our natural scenery and improving its environmental value while being sensitive to considerations of its heritage."</p> <p><b>Climate</b>  Goal 7 of the 25 Year Environment Plan, 'Mitigating and adapting to climate change', is to "take all possible action to mitigate climate change, while adapting to reduce its impact" by "continuing to cut greenhouse gas emissions including from land use, land use change..." and "making sure that all policies, programmes and investment decisions consider the possible extent of climate change this century".  With regards to the transport sector, the 25 Year Environment Plan identifies four 'early' priorities through the 'Future of Mobility Grand Challenge'. These include encouraging new modes of transport; addressing the challenges of moving from hydrocarbon to zero emission vehicles; and Preparing for a future of new mobility services, increased autonomy, journey-sharing and a blurring of the distinctions between private and public transport.</p> <p><b>Water Environment</b>  Goal 2 - Clean and plentiful water:  "Improve at least three quarters of our waters to be close to their natural state as soon as is practicable by: [...] Reaching or exceeding objectives for rivers, lakes, coastal and ground waters that are specially protected, whether for biodiversity or drinking water".</p>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
National Planning Policy Framework (2019)	<p><b>Biodiversity</b></p> <p>Paragraphs 170 and 174 to 177 of the NPPF require development to protect and safeguard biodiversity, and advise that development should aim to conserve, restore and enhance biodiversity adequately through mitigation or, as a last resort, using compensation.</p> <p>Recognise the wider benefits of ecosystem services; minimise impacts on biodiversity and provide net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.</p> <p>Paragraph 170 of the NPPF requires that planning decisions should be taken to enhance the natural environment by recognising the wider benefits from natural capital and ecosystem services. Further, Paragraph 171 requires plans to take a strategic approach to maintaining and enhancing green infrastructure networks and improving natural capital at a catchment or landscape scale.</p>
	<p><b>Landscape &amp; Historic Environment</b></p> <p>Paragraph 170 of the NPPF requires developments to protect and enhance valued landscapes and recognise the intrinsic character and beauty of the countryside.</p> <p>Paragraph 172 of the NPPF states that great weight should be given to conserving and enhancing landscape and scenic beauty in National parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection. The scale and extent of development within these designated areas should be limited, planning permission for major developments should be refused other than in exceptional circumstances where it can be demonstrated that the development is in the public interest.</p>
	<p><b>Water Environment</b></p> <p>"... inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere".</p> <p>"... if there is no reasonably available site in Flood Zones 1 or 2, then national networks infrastructure projects can be located in Flood Zone 3, subject to the Exception Test. Both elements of the test will have to be passed for development to be consented..."</p> <p>"Any project that is classified as 'essential infrastructure' and proposed to be located in Flood Zone 3a or 3b should be designed and constructed to remain operational and safe for users in times of flood; and any project in Zone 3b should result in no net loss of floodplain storage and not impede water flows".</p> <p>"... impacts on the water environment should be given more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Framework Directive".</p>
	<p><b>Air Quality and Climate Change</b></p> <p>Paragraph 150 of the NPPF states that "New development should be planned for in ways that:</p> <ul style="list-style-type: none"> <li>a) avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and</li> <li>b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards." </li></ul>
	<p><b>Noise</b></p> <p>Paragraph 180 state planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life.</p>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Department for Transport, National Policy Statement for National Networks (2014)	<p>Paragraph 4.38 of the NN NPS states that “New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure.”</p> <p>The NN NPS also requires carbon impacts to be considered as part of the appraisal of scheme options, and an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive. It goes on to state that “it is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets.”</p>
The Clean Growth Strategy (2017)	<p>This Strategy sets out a comprehensive set of policies and proposals that aim to accelerate the pace of “clean growth”, i.e. deliver increased economic growth and decreased emissions.</p> <p>Key Policies and Proposals in the Strategy:</p> <ul style="list-style-type: none"> <li>• Develop world leading Green Finance capabilities;</li> <li>• Develop a package of measures to support businesses to improve their energy productivity, by at least 20 per cent by 2030;</li> <li>• Improving the energy efficiency of our homes;</li> <li>• Rolling out low carbon heating;</li> <li>• Accelerating the shift to low carbon transport;</li> <li>• Delivering clean, smart, flexible power emissions; and</li> <li>• Enhancing the benefits and value of our natural resources</li> </ul>
Our Waste, Our Resources: A Strategy for England (2018)	<p>This Strategy is the first significant government statement in this area since the 2011 Waste Review and the subsequent Waste Prevention Programme 2013 for England. It builds on this earlier work but also sets out fresh approaches to long-standing issues like waste crime, and to challenging problems such as packaging waste and plastic pollution. The strategy is framed by natural capital thinking and guided by two overarching objectives:</p> <ol style="list-style-type: none"> <li>1. To maximise the value of resource use; and</li> <li>2. To minimise waste and its impact on the environment.</li> </ol> <p>The Strategy has five key principles:</p> <ol style="list-style-type: none"> <li>1. To provide the incentives, through regulatory or economic instruments if necessary and appropriate, and ensure the infrastructure, information and skills are in place, for people to do the right thing;</li> <li>2. To prevent waste from occurring in the first place, and manage it better when it does;</li> <li>3. To ensure that those who place on the market products which become waste to take greater responsibility for the costs of disposal – the ‘polluter pays’ principle;</li> <li>4. To lead by example, both domestically and internationally; and</li> <li>5. To not allow our ambition to be undermined by criminality.</li> </ol>
Future Water The Government’s water strategy for England (2008)	<p>The vision for water policy and management is one where, by 2030 at the latest, England has:</p> <ul style="list-style-type: none"> <li>• improved the quality of our water environment and the ecology which it supports, and continued to provide high levels of drinking water quality from our taps;</li> <li>• sustainably managed risks from flooding and coastal erosion, with greater understanding and more effective management of surface water;</li> <li>• ensured a sustainable use of water resources, and implemented fair, affordable and cost reflective water charges;</li> <li>• cut greenhouse gas emissions; and</li> <li>• embedded continuous adaptation to climate change and other pressures across the water industry and water users.</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Noise Policy Statement for England (2010)	The long-term vision for the Noise Policy Statement for England is to “promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.”
Clean Air Strategy (2019)	Addresses action to reduce emissions from transport “as a significant source of emissions of air pollution”, in-particular oxides of nitrogen (NOx) – which is responsible for high levels of NO2 in ambient air, especially in urban areas - and particulate (PM10 and PM2.5) emissions.
The State of Natural Capital, Natural Capital Committee (2020)	In the report, the Natural Capital Committee sets out: <ul style="list-style-type: none"> <li>• Despite some improvements, only limited progress has been made towards the 25 Year Environment Plan’s goals.</li> <li>• Its advice to Government that biodiversity net gain should be expanded to environmental net gain.</li> <li>• Its advice that an England wide baseline of natural capital assets should be established to measure progress towards environmental goals.</li> </ul> Natural capital should be seen as infrastructure in its own right, in recognition of its contribution to economic wellbeing.
Accessible Natural Green Space Standards in Towns and Cities: A review and Toolkit for their Implementation (2003) and Nature Nearby: Accessible Green Space Guidance (2010)	English Nature (now Natural England) recommends that provision should be made of at least 2ha of accessible natural greenspace per 1000 population according to a system of tiers into which sites of different sizes fit: <ul style="list-style-type: none"> <li>• no person should live more than 300m from their nearest area of natural greenspace;</li> <li>• there should be at least one accessible 20ha site within 2km from home;</li> <li>• there should be one accessible 100ha site within 5km; and</li> <li>• there should be one accessible 500ha site within 10km.</li> </ul>
Green Infrastructure: An integrated approach to landscape use. Landscape Institute Position Statement (2013)	The Landscape Institute’s most recent position statement, ‘Green Infrastructure LI Position Statement 2013’ sets out why GI is crucial to our sustainable future. The publication showcases a range of successful GI projects and shows how collaboration is key to delivering multifunctional landscapes. It also illustrates why landscape professionals should take the lead on the integration of GI.
1979 Ancient Monuments and Archaeological Areas Act	Where Ancient Monuments occur on agricultural land the following Act influences the extent of public control to ensure the protection of scheduled ancient monuments.
Planning for the Future (White Paper) August 2020	As part of the government's drive to reform national planning regulations, they have recently released a white paper for consultation. It focusses on digitalisation (moving to a 'data-driven' form of planning) removing 'red tape' around planning policies, and improving the sustainability of housing stock. Key pillars include: <p>'First, we will streamline the planning process with more democracy taking place more effectively at the plan-making stage, and will replace the entire corpus of plan-making law in England</p> <p>Second, we will take a radical, digital-first approach to modernise the planning process. This means moving from a process based on documents to a process driven by data.</p> <p>Third, to bring a new focus on design and sustainability.</p> <p>Fourth, we will improve infrastructure delivery in all parts of the country and ensure developers play their part, through reform of developer contributions.</p> <p>Fifth, to ensure more land is available for the homes and development people and communities need, and to support renewal of our town and city centres.'</p>



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
National Networks National Policy Statement (NN NPS) (2014)	<p>Noise</p> <p>Paragraph 5.193 states that developments must be undertaken in accordance with statutory requirements for noise. Due regard must have been given to the relevant sections of the Noise Policy Statement for England, National Planning Policy Framework and the Government’s associated planning guidance on noise. Paragraph 5.192 states that the Secretary of State should not grant development consent unless satisfied that the proposals will meet, the following aims, within the context of Government policy on sustainable development:</p> <ul style="list-style-type: none"> <li>• avoid significant adverse impacts on health and quality of life from noise as a result of the new development;</li> <li>• mitigate and minimise other adverse impacts on health and quality of life from noise from the new development; and</li> <li>• contribute to improvements to health and quality of life through the effective management and control of noise, where possible.</li> </ul>
	<p>Air Quality</p> <p>Paragraph 4.38 of the NN NPS states that “New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the provision of green infrastructure.”</p> <p>The NN NPS also requires carbon impacts to be considered as part of the appraisal of scheme options, and an assessment of any likely significant climate factors in accordance with the requirements in the EIA Directive. It goes on to state that “it is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets.”</p>
	<p>Soils, waste and materials</p> <p>“Evidence of appropriate mitigation measures (incorporating engineering plans on configuration and layout, and use of materials) in both design and construction should be presented”.</p>
	<p>Landscape and Historic Environment</p> <p>Paragraph 5.149 states that when judging the impact of a project on landscape, the decision is dependent on the nature of the existing landscape likely to be affected and the nature of the effect likely to occur. The project should aim to avoid or minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.</p>
	<p>Water</p> <p>“... if there is no reasonably available site in Flood Zones 1 or 2, then national networks infrastructure projects can be located in Flood Zone 3, subject to the Exception Test. Both elements of the test will have to be passed for development to be consented...”</p> <p>“Any project that is classified as ‘essential infrastructure’ and proposed to be located in Flood Zone 3a or 3b should be designed and constructed to remain operational and safe for users in times of flood; and any project in Zone 3b should result in no net loss of floodplain storage and not impede water flows”.</p> <p>“... impacts on the water environment should be given more weight where a project would have adverse effects on the achievement of the environmental objectives established under the Water Framework Directive”.</p>
	<p>Biodiversity and Geodiversity</p> <p>NN NPS states that development should avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives. The applicant may also wish to make use of biodiversity offsetting in devising compensation to counteract impacts on biodiversity which cannot be avoided or mitigated. Where significant harm cannot be avoided or mitigated, as a last resort, appropriate compensation measures should be sought. Paragraphs 3.2 to 3.5 of the NN NPS state that not only should national road and rail networks be designed to minimise social and environmental impacts, but that they should also seek to improve quality of life. In part this may be achieved by “reconnecting habitats and ecosystems [...] improving water quality and reducing flood risk, [...] and addressing areas of poor air quality.”</p> <p>Paragraph 5.162 recognises the potential for developments to provide positive environmental and economic benefits through the provision of green infrastructure. Paragraph 5.175 of the NN NPS highlights that green infrastructure identified in development plans should be protected and, where possible, enhanced.</p>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Transport Investment Strategy (2017) Department for Transport	<p>The Transport Investment Strategy, published in July 2017 by the Department for Transport, describes the UK government's priorities for investment in transport. These are:</p> <ul style="list-style-type: none"> <li>• To create a more reliable, less congested, and better-connected transport network that works for the users who rely on it. The TIS notes UK transport systems are ageing and are facing increasing demands. In many places, the current transport network does not provide the right levels of connectivity for people and business.</li> <li>• To build a stronger, more balanced economy by enhancing productivity and responding to local growth priorities. The TIS notes the UK's national productivity is lower than other G7 countries (e.g. 36% behind Germany), and describes transport as one way of boosting productivity. It is also acknowledged that prosperity hasn't been shared evenly between different places, leaving some communities feeling left behind.</li> <li>• To enhance the UK's global competitiveness by making Britain a more attractive place to trade and invest. Britain is globally renowned as a leader in Research and Innovation, and Scientific fields. Foreign investment in these areas is significant and relies upon good national and international transport links. Retaining the UK's pre-eminence in these areas will require continued investment in the transport network, enhancing "city clusters" and "international connectivity". The TIS therefore views transport as a means of attracting job-creating investment, leveraging the UK's industrial strengths and enabling it to trade with partners with as few frictions as possible.</li> <li>• To support the creation of new housing. The TIS acknowledges parts of the UK face a significant challenge to provide the houses that people need in the places they wish to live. Furthermore, the Government's Housing White Paper recognises that investing in transport infrastructure is one of the best ways of unlocking development in places that are currently poorly served by our transport system.</li> </ul>
Draft Road Investment Strategy 2 (2018) Department for Transport	<p>The Draft Road Investment Strategy 2 (RIS2), published by the Department for Transport in October 2018, sets out the Government's strategic vision for the Strategic Road Network (SRN) – the UK's motorways and principal A-roads – covering the years 2020 to 2025.</p> <p>RIS2 emphasises the need to ensure the SRN is safe, serviceable, and free-flowing. It also highlights the need for the SRN to be 'smart' and build on new technologies, increase the level of accessibility and integration with the wider transport network (including the newly identified Major Road Network), and demonstrate how the SRN supports economic development and how investment can improve the environment.</p>
Road to Growth (2017) Highways England	<p>The Road to Growth sets out Highways England's strategic economic growth plan. It sets out how the economic impact of the Strategic Route Network can be optimised. The paper focusses on the SRN, specifically economic roles which it can play in supporting the economy which are:</p> <ul style="list-style-type: none"> <li>• Supporting business productivity and competitiveness, and enabling the performance of SRN-reliant sectors</li> <li>• Providing efficient routes to global markets through international gateways</li> <li>• Stimulating and supporting the sustainable development of homes and employment spaces</li> </ul>
Decarbonising Transport, Setting the Challenge (2020) Department for Transport	<p>Provides an overview of transport modes and their current contributions to carbon emissions. It then summarises the current policies which are in place to help them decarbonise, and provides forward projections of how effective these policies will be for bringing the transport network to net zero. The plan also considers the importance of incorporating 'place-based' solutions, providing geographically specific answers to the challenge. Ultimately, the policy comes up with six strategic priorities which reflect 'the core areas we believe plans are needed for delivery of the TDP [Transport Decarbonisation Plan]', which are:</p> <ul style="list-style-type: none"> <li>• Accelerating modal shift to public and active transport – making public transport and active travel the first choice for daily activities, reducing car use, and exploring how to make use of how to use vehicles differently.</li> <li>• Decarbonisation of road vehicles – requiring major changes to the vehicles we drive and the way we use our roads, driven by investing in innovative technology solutions and developing sustainable supply chains.</li> <li>• Decarbonising how we get our goods – transforming 'last mile' deliveries, ensuring an integrated, clean and sustainable delivery system, making use of digitally-enabled solutions, data-sharing and collaborative platforms.</li> <li>• Place-based solutions for emissions reduction – understanding where, how and why emissions occur in specific locations, will enable development of a tailored response, addressing how management at a local level can best address emissions at a local level.</li> <li>• UK as a hub for green transport technology and innovation – utilising the UK's world-leading scientists, business leaders and innovators, positioning the UK as an internationally recognised leader in environmentally sustainable technologies.</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Gear Change: A Bold Vision for Walking and Cycling (2020) Department for Transport	This policy sets out how the government plans to make a step change in walking and cycling over the coming years. It was released after the onset of the COVID-19 pandemic, and aims capitalise on the dramatic changes to travel behaviours it has caused. The paper provides several key reasons for making this change, ranging from improvements to public health, to addressing inequalities, to tackling congestion, to improving air quality, to slowing climate change, and boosting the economy.
Industrial Strategy White Paper (2017) Department for Business Energy and Industrial Strategy	The Industrial Strategy White Paper, published by the UK government in November 2017, sets out the government's over-arching industrial policy. This White Paper describes how the government will work to boost the productivity of the UK by helping "businesses create better, higher-paying jobs in every part of the United Kingdom with investment in the skills, industries and infrastructure of the future". The White Paper describes five "foundations of productivity": <ul style="list-style-type: none"> <li>• ideas;</li> <li>• people;</li> <li>• infrastructure;</li> <li>• business environment; and</li> <li>• places.</li> </ul>
Road to Zero (2018) Office for Low Emissions Vehicles	Department for Transport's Road to Zero Strategy, published in July 2018, which sets a target of ensuring that 50% of all new cars in 2030 are ultra-low emission vehicles. The strategy aims to deliver a significant expansion of green infrastructure across the country, reduce emissions from the vehicles already on the UK's roads, and encourage greater uptake of zero emission road vehicles.
Clean Growth Strategy (2017) UK Department for Business Energy and Industrial Strategy	Outlines the government's method for ensuring that the UK continues to grow economically, whilst reducing its emissions. The strategy sets out how £2.5bn of funding will be invested by the government to support low carbon innovation from 2015 to 2021. The strategy notes that changes to the transport network will be fundamental for reducing emissions and describes in depth how it expects to encourage a shift to low carbon transport.
Air Quality Plan (2017) Department for Environment and Rural Affairs	Describes how the government plans to improve air quality by ending the sale of new, conventional petrol and diesel cars and vans by 2040. This policy has had a significant impact on the automotive industry and has already resulted in significant changes in consumer behaviour.
Government Clean Air Strategy (2019) Department for Environment and Rural Affairs	Explains how the government will tackle all sources of air pollution. It sets out potential future legislation around transport, and broad measures to help drive a switch to zero-emissions transport modes.
Housing White Paper (2017) (Fixing our broken housing market) Ministry for Communities Housing and Local Government	Sets out how the government intends to boost housing supply and create a more efficient housing market. The government wishes to ensure the housing market delivers outcomes that are more closely matched to the needs and aspirations of all households, and support wider economic prosperity. This policy is particularly pertinent to the South East as the region is characterised by relatively low levels of housing affordability.

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Inclusive Transport Strategy (2018) Department for Transport	Government wants people with disabilities to have the same access to transport as all other users by 2030. The document outlines a wide ranging series of interventions which it will employ to achieve this aim, from raising awareness to providing better physical infrastructure. It also describes how the government will hold itself accountable for the delivery of this strategy, including processes for monitoring and evaluation specifying key output indicators.
Planning (Listed buildings and Conservation Areas) Act 1990	This is an Act relating to special controls in respect of buildings and areas of special architectural or historic interest.
Energy South 2 East, Local Energy Strategy (2019)	<p>This local energy strategy has been developed to enable the Coast to Capital, Enterprise M3 and South East Local Enterprise Partnerships (LEPs) of England to achieve clean growth from now until 2050 in energy across the power, heat and transport sectors. The strategy has five priority themes:</p> <ul style="list-style-type: none"> <li>• Low Carbon heating - district heat networks, off-gas grid homes, hydrogen injection into the natural gas grid, new-build homes on hydrogen grid</li> <li>• Energy Saving and efficiency - off gas grid homes, energy efficiency in homes, SME support programme</li> <li>• Reducing carbon in a global economy – international aspects of transportation – shipping and aviation – are vital to the UKs economy; the UK must become a centre of expertise to drive low carbon transport, boosting the UK economy and helping to lead the change internationally.</li> <li>• Renewable generation - offshore wind, solar and microgrid on landfill sites, biomass fuel supply chain, solar energy for network rail, car park solar potential, biofuel evolution</li> <li>• Smart energy system - housing and community microgrids, EV charging and hydrogen fuelling infrastructure, setup of ESCO/MUSCO infrastructure, support developments in CO2 capture</li> <li>• Transport Revolution - port modernisation, EV charging, CNG fleet fuelling</li> </ul>
Coast to Capital Rural Statement (2016)	<p>The purpose of the Rural Statement is highlight the contribution of the unique rural area to the future economic, social and environmental success of Coast to Capital and to identify the priorities for action which will be included in the action plan which is to follow. The key to improving rural competitiveness is not only to recognise the interdependencies between rural and urban areas but also to develop strong rural areas in their own right which reflect the varied and rapidly changing nature of the rural economy and communities. The evidence suggests that: high-performing rural areas have five essential attributes:</p> <ol style="list-style-type: none"> <li>1. A highly skilled workforce</li> <li>2. An innovative economic base serving both national and global markets</li> <li>3. A physical environment that provided the basis of a high quality of life</li> <li>4. A strong sense of place and identity</li> <li>5. Good access to urban employment centres.</li> </ol>



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
The High Weald AONB, Management Plan (2019 -2024)	<p>Key objectives of the plan include:</p> <ul style="list-style-type: none"><li>• To restore the natural function of rivers, water courses and water bodies.</li><li>• To protect and enhance soils, sandstone outcrops, and other important landform and geological features.</li><li>• To help secure climatic conditions and rates of change which support continued conservation and enhancement of the High Weald’s valued landscape and habitats.</li><li>• To reconnect settlements, residents and their supporting economic activity with the surrounding countryside.</li><li>• To enhance the architectural quality of the High Weald and ensure development reflects the character of the High Weald in its scale, layout and design.</li><li>• To enhance the ecological function of routeways.</li><li>• To enhance the ecological quality and functioning of woodland at a landscape scale.</li><li>• To secure agriculturally productive use for the fields of the High Weald, especially for local markets, as part of sustainable land management.</li><li>• To enhance the ecological function of field and heath as part of the complex mosaic of High Weald habitats.</li><li>• To improve amenities, infrastructure (including the provision of appropriate affordable housing), and skills development for rural communities and related sectors that contribute positively to conserving and enhancing natural beauty</li></ul>
Kent Downs AONB Management Plan 2014 -2019	<p>Key aims of the plan include:</p> <ul style="list-style-type: none"><li>• The character and distinctiveness of villages, farmsteads and individual buildings are conserved and enhanced by combining the best traditions of the past with the best technologies of the present to create environmentally sustainable and locally enhancing development.</li><li>• A positive, proactive and urgent approach is taken to the implications of climate change and intelligent and effective mitigation and adaptation responses are chosen which support landscape character and ecosystem services.</li><li>• The setting and views in and out of the AONB are conserved and enhanced.</li><li>• The highest standards of landscape conservation, restoration and enhancement are encouraged and integrated into all land uses in the Kent Downs and its setting.</li><li>• The natural heritage and wildlife is recognised for its inherent value for contributing to quality of life and the economic value of the Kent Downs.</li><li>• A network of well-managed, connected sites of biodiversity importance covers the Kent Downs, providing habitats for locally typical and rare species and communities and the essential building block to achieve functional ecological networks to assist with climate change adaptation.</li><li>• Woodland ecology and archaeology is well understood, conserved, enhanced and recognised for its value.</li><li>• The landscape context and setting of all historic buildings, features and settlements is protected, conserved and enhanced.</li><li>• The extreme importance and sensitivity of the Heritage Coasts are recognised publicly, through appropriate international status and in policy and development management decisions.</li></ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Kent Minerals and Waste Local Plan (2013 -2030)	<p>Throughout the plan period 2013-2030, minerals and waste development will:</p> <ol style="list-style-type: none"> <li>1. Make a positive and sustainable contribution to the Kent area and assist with progression towards a low carbon economy.</li> <li>2. Support the needs arising from growth within Kent.</li> <li>3. Deliver cost effective and sustainable solutions to Kent's minerals and waste needs through collaborative working with communities, landowners, the minerals and waste industries, the environmental and voluntary sector and local planning authorities.</li> <li>4. Embrace the naturally and historically rich and sensitive environment of the plan area, and ensure that it is conserved and enhanced for future generations to enjoy.</li> <li>5. Seek to deliver a sustainable, steady and adequate supply of land-won minerals including aggregates, silica sand, crushed rock, brickearth, chalk and clay, building stone and minerals for cement manufacture.</li> <li>6. Facilitate the processing and use of secondary and recycled aggregates and become less reliant on land-won construction aggregates.</li> <li>7. Safeguard economic mineral resources for future generations and all existing, planned and potential mineral transportation and processing infrastructure (including wharves and rail depots and production facilities).</li> <li>8. Restore minerals sites to a high standard that will deliver sustainable benefits to Kent communities.</li> <li>9. Move waste up the Waste Hierarchy, reducing the amount of non-hazardous waste sent to landfill.</li> <li>10. Encourage waste to be used to produce renewable energy incorporating both heat and power if it cannot be re-used or recycled.</li> <li>11. Ensure waste is managed close to its source of production.</li> <li>12. Make provision for a variety of waste management facilities to ensure that Kent remains at the forefront of waste management with solutions for all major waste streams, while retaining flexibility to adapt to changes in technology.</li> <li>13. Ensure sufficient capacity exists to meet the future needs for waste management.</li> <li>14. Restore waste management sites to a high standard that will deliver sustainable benefits to Kent communities.</li> </ol> <p>The spatial strategy outlines the approach the Hampshire Authorities will take to critical minerals and waste issues and sets the context for the Plan's policies.</p>
Hampshire - Portsmouth, Southampton, New Forest National Park & South Downs National Park Minerals And Waste Plan (2013)	<p>The overall strategic priority is that enough minerals and waste development is provided to support the economies of Hampshire, as well as economies in other areas influenced by Hampshire throughout the Plan period, without jeopardising Hampshire's environment and the quality of life of its communities. Accordingly any minerals and waste development has to fit within a framework comprising the protection of:</p> <ul style="list-style-type: none"> <li>• biodiversity interests (European Sites, Sites of Special Scientific Interest);</li> <li>• the significant natural assets like landscape designations (National Parks, Areas of Outstanding Natural Beauty) and landscape character;</li> <li>• the countryside and South West Hampshire Green Belt; and</li> <li>• heritage (Scheduled Ancient Monuments, Listed Buildings, archaeology).</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
New Forest National Park Local Plan (2016 - 2036)	<p>The vision of the Local plan is to:</p> <p>"By 2036 New Forest District (outside the National Park) will be characterised by thriving and prosperous communities that provide for the housing, business and community needs of residents".</p> <p>"The natural beauty and cultural heritage of the adjoining New Forest National Park [...] and the International Nature Conservation sites and nationally protected habitats in the New Forest area will have been safeguarded and enhanced".</p> <p>"The character, heritage and local distinctiveness of the towns and villages will have been protected and enhanced by contextually appropriate and well-designed development providing a wide spectrum of new homes addressing and prioritising the diverse needs of district residents at all stages of life. New residential development will provide improved facilities for the whole community, including significant areas of natural recreational green space retaining and enhancing key landscape features and biodiversity in areas of new development. This will provide improved access to the countryside promoting healthy and active lifestyles, whilst also buffering sensitive ecological areas and natural landscapes, and safeguarding the special qualities of the adjoining New Forest National Park. The communities living around it will continue to strongly identify with the New Forest National Park".</p>
South Downs National Park Local Plan (2014 - 2033)	<p>There are 9 key overarching objectives which include:</p> <ol style="list-style-type: none"> <li>1. To conserve and enhance the landscapes of the National Park</li> <li>2. To conserve and enhance the cultural heritage of the National Park</li> <li>3. To conserve and enhance large areas of high-quality and well-managed habitat to form a network supporting wildlife throughout the landscape</li> <li>4. To achieve a sustainable use of ecosystem services thus enhancing natural capital across the landscapes of the National Park and contributing to wealth and human health and wellbeing</li> <li>5. To protect and provide opportunities for everyone to discover, enjoy, understand and value the National Park and its special qualities</li> <li>6. To adapt well to and mitigate against the impacts of climate change and other pressures</li> <li>7. To conserve and enhance the villages and market towns of the National Park as thriving centres for residents, visitors and businesses</li> <li>8. To protect and provide for the social and economic wellbeing of National Park communities supporting local jobs, affordable homes and local facilities</li> <li>9. To protect and provide for local businesses including farming, forestry and tourism that are broadly compatible with and relate to the landscapes and special qualities of the National Park</li> </ol>
South Downs Green Infrastructure Framework (2016)	<p>This Framework sets out a roadmap for green infrastructure planning for the South Downs National Park and the wider region. It is the first, united step by a range of partners working together to ensure that economic growth and development is achieved sustainably through planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.</p> <p>The overall aim of the framework is to " create, protect and enhance a connected network of green and blue spaces; which sustainably meet the needs of local communities and supports the special qualities of the South Downs National Park; by achieving a consensus about the strategic principles for planning, delivery and management of green infrastructure".</p>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
West Sussex Joint Minerals Local Plan (2018)	<p>The overall vision of the plan is to create a "place where minerals are produced in ways which conserve and enhance the beautiful outdoors of West Sussex, including the special qualities of the South Downs National Park and Areas of Outstanding Natural Beauty, for the benefit of current and future generations".</p> <p>"Will have contributed to the supply of minerals, in particular, aggregates (soft sand, sharp sand and gravel, and marine won aggregate), clay, chalk, building stone, silica sand and oil and gas, to support growth in West Sussex. In particular social and economic progress of both the Coastal West Sussex and Gatwick Diamond strategic growth areas will be supported through the provision of aggregate to enable the delivery of new development".</p>
East Sussex, South Downs and Brighton & Hove Waste and Minerals Local Plan (2013)	<p>The overall vision for the plan includes:</p> <p>"By 2030 the environmental footprint, in particular greenhouse gas emissions, associated with the production and management of waste and minerals in the Plan Area will have been significantly reduced.</p> <p>Reductions in waste arisings will have occurred and the efficient production and use of materials will have been maximised. Most waste will be reused, recycled to provide goods or raw materials, or processed to provide energy (heat or power), with as little as possible being disposed of because it is the least sustainable option and because the environmental characteristics of the Plan Area mean that opportunities for disposal to land are severely restricted.</p> <p>Facilities needed to manage waste and produce minerals will be designed, located, and operated to ensure that the area's built and natural heritage are preserved and even enhanced - from its exceptional countryside, which includes part of the South Downs National Park, the Heritage Coast, the High Weald AONB including Ashdown Forest, the Low Weald, and the Levels at Pevensey and Rye, to its distinctive and varied built environment which includes seaside towns and a city with grand Regency architecture as well as scattered Weald and downland villages".</p>
MMO, South Inshore and South Offshore Marine Plan (2018)	<p>The south inshore marine plan area stretches from Folkestone in Kent to the river Dart in Devon, whilst the offshore marine plan area includes the area from 12nm to the maritime borders with France and the Channel Islands, totalling approximately 10,000sq km.</p> <p>The south marine plan areas are home to a number of ports including Southampton and Portsmouth, contain one of the busiest shipping channels in the world, support significant fishing and aquaculture activity and have a strong association with the defence of Britain.</p> <p>The main vision of the plan is "By 2038, the south marine plan areas' iconic and unique qualities, characteristics and culture will be conserved, promoted and where needed enhanced, through good management of its marine space. The natural beauty of the coastline and busy coastal and offshore waters are qualities that make the south marine plan areas distinctive. By 2038, the south marine plan areas will have maintained this distinctive natural beauty and diversity while sustainable economic growth, protection of the natural and historic environment, as well as the well-being of those who live, work and visit the south coast, will have been enhanced through balanced and sustainable use of its resources".</p>



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Kent Biodiversity 2020 and beyond – a Strategy for the Natural Environment (2015-2025)	<p>The vision for biodiversity in Kent and Medway is: "By 2050 our land and seas will be rich in wildlife, our biodiversity will be conserved, restored, managed sustainably and be more resilient and able to adapt to change and will be enjoyed and valued by all, underpinning our long-term economic, social and personal wellbeing"</p> <p>Key aims of the strategy include:</p> <ul style="list-style-type: none"> <li>• Restoring at least 15% of degraded ecosystems as a contribution to climate change mitigation and adaptation.</li> <li>• More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats of 10,260 ha.</li> <li>• By the end of 2016 in excess of 25% of waters around Kent and Medway will be contained in a well-managed Marine Protected Area network that helps deliver ecological coherence by conserving representative marine habitats that are nationally and internationally important. This target should not include the area already covered by the Outer Thames SPA.</li> <li>• Better wildlife habitats in the county, with 70% of Local Wildlife Sites in favourable condition and at least 90% of Local Wildlife Sites in favourable or recovering condition, at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition.</li> <li>• By 2020, landscape scale initiatives that address the conservation of key species, through effective, integrated and joined up approaches including through management of our existing systems of protected areas and the establishment of nature improvement areas, in place on 17% of land and water.</li> </ul>
Future water resource requirements for South East England (2020)	<p>The plan will take a long-term view, looking ahead to 2100 and consider the water needed in homes and at work, and that required by industry, agriculture, electricity generation and the water needs of the environment. The plan will seek to:</p> <ul style="list-style-type: none"> <li>• Ensure there is enough water to serve the growing population and support growth in the economy</li> <li>• Address the impacts of climate change on water availability</li> <li>• Improve the environment by leaving more water in the region's rivers, streams and underground sources</li> <li>• Increase the region's resilience to drought and other events.</li> </ul>
Portsmouth Parks and Open Spaces Strategy - 2012-2022	<p>The overall vision of the strategy is to provide, protect enhance and maintain good quality open spaces in Portsmouth that:</p> <ul style="list-style-type: none"> <li>• provide a diverse range of open spaces and recreational opportunities</li> <li>• reflect the needs of Portsmouth's residents and visitors</li> <li>• ensure the safety of those who visit the open spaces</li> <li>• encourage a healthy lifestyle, and enhance quality of life</li> <li>• maximise access to all groups of society</li> <li>• protect nature conservation areas and biodiversity</li> <li>• link, wherever possible, the city's nature conservation and biodiversity areas</li> <li>• represent good value for money</li> <li>• encourage communities to value and care for Portsmouth's parks and open spaces</li> <li>• encourage community involvement in the management of the open spaces</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
South Hampshire Green Infrastructure Strategy (2017 - 2034)	<p>The overall aim of the strategy is "Delivering an integrated and multifunctional green infrastructure network of South Hampshire's distinctive local environments that can adapt to climate change and is managed and valued by South Hampshire's Communities as part of sustainable, prosperous and healthy lifestyles".</p> <p>The Objectives of the South Hampshire GI Strategy are:</p> <ul style="list-style-type: none"> <li>• Enable and complement planned sustainable economic growth and development.</li> <li>• Contribute to reducing flood risk on local communities.</li> <li>• Improve the health and well being of communities by providing green areas for recreation and by addressing the impacts of noise, air and water pollution.</li> <li>• Help communities and the natural environment adapt to a changing climate.</li> <li>• Protect and enhance biodiversity, providing mitigation for the impact of development taking place within the sub-region and in-combination with that taking place adjacent to it.</li> <li>• Promote access to GI through greater connectivity of spaces, in so far as this does not compromise environmental sensitivities.</li> <li>• Create new areas of GI to serve new and existing developments.</li> <li>• Where appropriate, maximise multifunctionality of new and existing GI.</li> <li>• Enhance the quality of the landscape and maintain the distinctiveness of settlement pattern and promote sense of place.</li> <li>• Provide a strategic framework for locally prepared GI strategies within the sub-region.</li> <li>• Integrate PUSH strategic GI priorities with those of neighbouring GI strategies /frameworks</li> </ul>
Brighton and Hove Open Space Strategy (2017)	<p>The Strategy sets out a range of policies and actions to put parks on a firm footing in order to maintain facilities for the future. The strategy highlights funding opportunities and the need to build on ideas that came out of the consultation. Key policies include:</p> <ul style="list-style-type: none"> <li>• Continue to encourage habitats and opportunities for wildlife to thrive within all open spaces including parks and gardens.</li> <li>• Promote and pursue positive conservation management of semi-natural habitats on the council's managed land holdings, especially in designated nature conservation sites, the Nature Improvement Area , priority habitats and those acting as a wildlife stepping stone, and for priority species.</li> <li>• Seek ways to encourage investment in the Public Rights of Way and Open Access infrastructure including missing paths, signs, fences and gates etc.</li> <li>• Promote the importance of open and play space health.</li> </ul>
Southampton's Green Space Strategy Summary and Action Plan (2008)	<p>The 20 year vision for Southampton's parks and green spaces;</p> <p>"Southampton will be recognised as the regional Green City, with a range of fine parks and open spaces that are easily accessible, represent good value for money and delivered in partnership with the local community for everyone to enjoy."</p> <p>The Plan identifies seven key focus areas:</p> <ul style="list-style-type: none"> <li>• Economic value</li> <li>• Social dimensions of greenspaces</li> <li>• Health and wellbeing</li> <li>• Climate change and biodiversity</li> <li>• movement between places (green grid)</li> <li>• Improving safety</li> <li>• Benefits for children and young people</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Blue Green Infrastructure through Social Innovation (BEGIN) 2016 -2020	<p>BEGIN (Blue Green Infrastructure through Social Innovation) is a 4 year project funded through the European Regional Development Fund (ERDF) by the Interreg Europe programme. BEGIN proposes an approach to climate resilience for cities that mimics nature's potential to deal with flooding. Blue and Green Infrastructure (BGI) supports existing grey infrastructure to cope with extreme weather events and improves urban liveability.</p> <p>The aims and objects of the BEGIN project are to:</p> <ul style="list-style-type: none"> <li>• Demonstrate improved climate change adaptation through Blue Green Infrastructure (BGI) in urban areas</li> <li>• Capture and sustain BGI's multiple benefits by using social innovation</li> <li>• Implement viable BGI solutions in pilot projects</li> <li>• Incorporate BGI solutions into schemes to deliver drainage management and other multiple benefits.</li> <li>• Establish the value of ecosystem services using innovative economic valuation tools.</li> </ul>
Kent Local Flood Risk Management Strategy 2017 - 2023	<p>The aims of the local strategy are:</p> <ul style="list-style-type: none"> <li>• To support and improve the safety and wellbeing of Kent's residents and the economy of Kent through appropriate flood risk management;</li> <li>• To ensure that we all work together effectively to understand and deliver appropriate flood risk management in Kent</li> <li>• To contribute to sustainable development, regeneration and land management in Kent through the promotion of sustainable flood risk management practices that utilise natural processes where appropriate.</li> </ul>
East Sussex Local Flood Risk Management Strategy 2016 – 2026	<p>The principal elements of the Strategy include;</p> <ul style="list-style-type: none"> <li>• the implementation of a proportionate approach to managing risk;</li> <li>• managing flood risk as part of the planning process;</li> <li>• ensuring that landowners and property owners are aware of their responsibilities;</li> <li>• the communication of flood risk information to those who need it;</li> <li>• improving the evidence base;</li> <li>• partnership working to deliver solutions to flooding problems; and,</li> <li>• identifying opportunities to bid for external funding to assist in delivering solutions</li> </ul>
Brighton and Hove Local Flood Risk Management Strategy, 2015	<p>The Strategy includes eight key objectives:</p> <ul style="list-style-type: none"> <li>• Work with Partners, Stakeholders and Local Community Groups to Understand and manage flood risk.</li> <li>• Continue to improve BHCC knowledge and evidence base of local flood risk</li> <li>• Work with Partners and Funders to implement sustainable measures to reduce flood risk</li> <li>• Manage development impact on flood risk through land allocation and development control policy</li> <li>• Raise public awareness and resilience to flooding</li> <li>• Undertake annual inspection, maintenance and improvement, where necessary of flood defence assets</li> <li>• Work with Partners and Funders to implement sustainable public health protection measure</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Brighton and Hove Local Flood Risk Management Strategy (2016)	<p>The Strategy includes eight key objectives:</p> <ul style="list-style-type: none"> <li>• Work with Partners, Stakeholders and Local Community Groups to Understand and manage flood risk.</li> <li>• Continue to improve BHCC knowledge and evidence base of local flood risk</li> <li>• Work with Partners and Funders to implement sustainable measures to reduce flood risk</li> <li>• Manage development impact on flood risk through land allocation and development control policy</li> <li>• Raise public awareness and resilience to flooding</li> <li>• Undertake annual inspection, maintenance and improvement, where necessary of flood defence assets</li> <li>• Work with Partners and Funders to implement sustainable public health protection measure</li> </ul>
Hampshire Local Flood Risk Management Strategy (2015)	<p>The Strategy includes eight key objectives:</p> <ul style="list-style-type: none"> <li>• Improve our knowledge and understanding of local flood risk in Hampshire</li> <li>• Develop Strategy, policy and a LFRMS action plan to manage these risks, providing balanced social and environmental benefits for the identified investment need</li> <li>• Work in partnership with other flood risk management authorities to deliver the Strategy and action plan</li> <li>• Maintain, and improve where necessary, local flood risk management infrastructure and systems to reduce risk</li> <li>• Ensure that local planning authorities take full account of flood risk when allocating land and considering permitting development (by avoiding development in inappropriate locations and minimising flood risk wherever possible)</li> <li>• Engage with local communities to increase public awareness and reporting of flooding and promote appropriate individual and community level planning and action</li> <li>• Improve and support community level flood response and recovery</li> <li>• Identify all available national, regional and local funding mechanisms to deliver flood risk management interventions.</li> </ul>
Future Mobility Review (2018) WSP on behalf of Transport for the South East	<p>This paper examined how future mobilities have the potential to change the transportation and provide opportunities in the South East area. The study provides a number of key recommendations for TfSE, which include;</p> <ul style="list-style-type: none"> <li>• Energy – develop a sufficient and reliable supply of energy across all sectors</li> <li>• Communications – provide consistently fast and reliable digital coverage in all communities/corridors</li> <li>• Spatial Planning – integrate spatial planning, economic development, and transport policy. Plan new developments that prioritise major trip generators in the most accessible locations.</li> <li>• Health – improve health and social care outcomes through comprehensive and consistent access to services.</li> <li>• Education – consider the implications of future mobility trends upon the skills and education sector, in particular those associated with automotive, AI and robotics.</li> <li>• Environment – reduce emissions related to poor air quality, and wider environmental impacts from transport.</li> </ul>
Logistics and Gateway Review (2019) Transport for the South East	<p>The aim of this study was to provide a consistent view of current and future patterns of freight activity and key cross-cutting issues relating to freight logistics and gateways across the TfSE area. Recommends developing a comprehensive freight strategy, which sets out the interventions and management actions required across the TfSE area, as well as the cost of undertaking these. Second, thought should be provided about how the promotion of best practice can be undertaken. Third, the strategy must incorporate local freight planning, including consolidation centres, land use, and retiming.</p>



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Highways England Route Strategies	<p>The Government's priorities for investment in the SRN in South East England is described in Highways England's Route Strategies. In total, Highways England has published 18 Route Strategies covering the whole SRN in England, seven of which are relevant for the South East. These are</p> <ul style="list-style-type: none"> <li>• Kent Corridor to M25 (M2 and M20);</li> <li>• London Orbital and M23 to Gatwick;</li> <li>• London to Wales;</li> <li>• M25 to Solent (A3 and M3);</li> <li>• Solent to Midlands;</li> <li>• South Coast Central; and</li> <li>• South West Peninsula.</li> </ul> <p>Each strategy provides a description of the key centres of population and industry, international gateways served by the route, the type of road, and its current performance and constraints. Each strategy outlines options for maintaining, operating and/or enhancing roads. Where appropriate, this could include influencing driver behaviour or considering other modes of travel.</p>
Solent Local Industrial Strategy Development (2019) Solent Local Enterprise Partnership	<p>The Solent LIS is also under development, and will aim to define priorities for how the region will maximise its contribution to UK productivity, through harnessing its distinctive strengths. It will ultimately set out a long-term roadmap aligned to the UK Industrial Strategy, backed by a robust and open evidence base. The developing LIS will explore the following components:</p> <ul style="list-style-type: none"> <li>• Iconic Brand - A distinctive offer for residents, businesses and investors and a strong and credible vision about what makes the Solent unique.</li> <li>• Keystone Assets - An economy anchored by national and international keystone assets, which range from education institutes to world-class industry clusters and knowledge-intensive assets.</li> <li>• Commercial Culture - A commercial culture which allows entrepreneurship, investment and innovation to flourish.</li> <li>• Liveable Place - A balance between jobs and income, health, housing, transport connections and the environment.</li> <li>• World Class Talent - A hub that trains, attracts and retains world - class talent, as well as nurtures the talent of its own residents and encourages aspiration.</li> <li>• Strong Financing - Financing available for supporting innovation, scaling spin-outs and investing in infrastructure.</li> </ul>
SELEP COVID-19 Economic Statement (2020) South East Local Enterprise Partnership	<p>SELEP's LIS is currently on hold while the economic challenges from COVID-19 are being assessed. In the interim, a COVID-19 economic statement has been released, which explains SELEP's response to the crisis and the economic support it is providing. It notes that they are providing more than £90m of investment to accelerate the recovery effort, focussing on delivering key infrastructure which will provide jobs now, and long-term positive economic benefits in the future. It also notes a number of areas where SELEP will focus its attention in the coming months in order to aid the recovery, including:</p> <ul style="list-style-type: none"> <li>• Supporting businesses to adapt, recover and grow.</li> <li>• Re-skilling the workforce, supporting people back into the labour market</li> <li>• Driving forward innovation, research and development to help stimulate the economy and increase productivity</li> <li>• Promoting and enabling clean recovery in the future planning of our towns and communities</li> <li>• Addressing gaps in digital connectivity</li> <li>• Accelerating planned growth through investment in £85m Getting Building Funds</li> <li>• Tackling the implications of the UK's exit from the European Union</li> <li>• Continuing a strong dialogue with government as a LEP</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Coast to Capital LIS Logic Chains (2019) Coast to Capital	<p>The Coast to Capital LEP have submitted a set of 'logic chains' to the Government's LIS Analytical Panel for review, presenting the rationale behind a set of draft interventions for the LIS which were identified through extensive engagement with partners and in response to the findings from the evidence base. These logic chains cover the following areas;</p> <ul style="list-style-type: none"> <li>• People: local talent pipeline</li> <li>• Business environment: business growth</li> <li>• Business environment: business space</li> <li>• Places: sustainable growth</li> <li>• Place: natural capital</li> <li>• Infrastructure: 5G digital region</li> <li>• Infrastructure: smart, clean mobility</li> <li>• Ideas: innovation acceleration</li> </ul>
TfSE Economic Connectivity Review (2018) Transport for the South East	<p>Highlights the unique position of the South East as a powerful driver of the UK economy and as the nation's major international gateway for people and business. It provides the evidence that underlines the South East's competitiveness in the maritime, defence, advanced engineering, biosciences, and connected digital sectors. These strengths are all supported by digital enabling technologies and other high growth sector specialisms in finance, professional services, transport and logistics. The study estimates the South East's high-growth priority sectors and their economic assets could deliver as much as £500 billion per year to the UK economy by 2050. However, it concludes that the region needs a period of sustained investment in infrastructure if it is to maintain its competitiveness in the face of intensifying global competition. and realise its full economic potential.</p>
Freight Market Study (2017) Network Rail	<p>The study brings together the strategic freight recommendations from individual routes and also provides an outline of the wider non-route specific priorities for rail freight capacity and capability. The study notes that there has been a recent growth in rail freight, a geographical shift in freight flows towards busier rail corridors, and a growth in passenger numbers. All of these trends are placing additional capacity constraints on the freight sector. This market study identifies future requirements on individual corridors and highlights capacity gaps. It also considers the need for increased capability (e.g. speed improvements and capacity).</p>
London South East Market Study (2013) Network Rail	<p>This study quantifies the importance of rail travel in South East England (nearly half of all trips to Central London are by rail) and forecasts that demand for off-peak travel and commuting into regional centres is expected to grow. The strategic goals identified for this market are:</p> <ul style="list-style-type: none"> <li>• to enable economic growth;</li> <li>• to reduce carbon emissions and the transport sectors' impact on the environment;</li> <li>• to improve the quality of life for communities and individuals; and</li> <li>• to improve affordability.</li> </ul> <p>Long term conditional outputs developed from the study include accommodating peak demand on short distance services and improving services between regional centres.</p>
Network Rail Local Studies	<p>Local Studies, which bring together the suggested outputs for all the market sectors of a part of the network. These studies evaluate the trade-offs between the suggested outputs for the different sectors, form a view of the likely long-term allocation of different sectors, and use these findings to inform decisions on the appropriate capability of the network. In total, there are five Local Studies in the South East:</p> <ul style="list-style-type: none"> <li>• London and South East</li> <li>• South East (Sussex)</li> <li>• South East (Kent)</li> <li>• Wessex</li> <li>• Western</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Brighton and Hove LTP (2015)	<p>Priorities:</p> <ul style="list-style-type: none"> <li>• Growing the economy sustainably – ensuring transport and travel contribute to the delivery of sustainable economic growth</li> <li>• Reducing carbon emissions that affect climate change and our local environment</li> <li>• Increasing safety &amp; security – creating streets and neighbourhoods that are safe and welcoming for people to move around and move socially</li> <li>• Providing equality, mobility &amp; accessibility – creating an accessible and inclusive transport system for everyone</li> <li>• Improving health &amp; well-being – encouraging and enabling healthy and active travel choices</li> <li>• Enhancing the public realm – designing and creating places that are inviting and attractive and enhance people's quality of life and regenerate the city</li> <li>• Encouraging respect and responsibility – increasing people's awareness of others and changing attitudes and behaviour when using the city's transport system</li> <li>• Maintaining and renewing the transport network and its infrastructure to increase resilience, including connections within and between neighbourhoods such as the city centre, seafront and South Downs National Park</li> <li>• Managing movement on the transport network, changing travel behaviour and informing people's travel choices in dynamic ways to increase efficiency and sustainability</li> <li>• Improving sustainable and accessible transport infrastructure, connections, information and options to connect people with local services, facilities and activities, and provide a safer and more attractive environment</li> </ul>
Hampshire LTP (2013)	<p>Priorities:</p> <ul style="list-style-type: none"> <li>• Support economic growth by ensuring the safety, soundness and efficiency of the transport network.</li> <li>• Provide a safe, well-maintained, and more resilient road network and continued casualty reduction.</li> <li>• Manage traffic to maximise the efficiency of existing network capacity, improving journey time reliability and reducing emissions.</li> <li>• Improving international gateways (Southampton, Portsmouth and Southampton International Airport).</li> <li>• Public transport (BRT) to assist delivery in planned developments such as New Community North Fareham, Basingstoke and Whitehill-Bordon</li> <li>• Improved access to Heathrow Airport.</li> <li>• Securing investment to improve capacity and journey time reliability on strategic national corridors (M3, A34 and A303).</li> <li>• Increased capacity on key rail routes.</li> </ul>
Isle of Wight LTP (2011)	<ul style="list-style-type: none"> <li>• Enhance and maintain highway assets.</li> <li>• Maintain and improve journey time reliability and predictability for all road users.</li> <li>• Protect and enhance the environment and quality of life.</li> <li>• Improve road safety and health.</li> <li>• Provide improvements to a series of key bottlenecks on the road network.</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
West Sussex Draft Economy Reset Plan: July 2020	Lays out some of the issues which have been caused by COVID-19 across the area, and suggests possible options for alleviating them. Priority Themes are: <ol style="list-style-type: none"><li>1. Theme 1: Protecting and reviving Crawley and the Gatwick Diamond economy</li><li>2. Theme 2: Protecting and reviving the coastal towns</li><li>3. Theme 3: Protecting and reviving the rural economy</li><li>4. Theme 4: Enabling business start-ups, business survival and business adaptation</li><li>5. Theme 5: Enabling an employment and skills reset (includes unemployment)</li><li>6. Theme 6: Protecting and reviving tourism and the visitor economy</li><li>7. Theme 7: Enabling a health and social care market for the future</li><li>8. Theme 8: Enabling a digital technology focussed reset</li><li>Theme 9: Embedding climate change and the environment into the reset</li></ol>
West Sussex Electric Vehicle Strategy 2019-2030	Aims: <ol style="list-style-type: none"><li>1. At least 70% of all new cars in the county to be electric by 2030.</li><li>2. There is sufficient charging infrastructure in place to support the vehicles predicted to be reliant on public infrastructure to charge.</li><li>3. Ensure a renewable energy source for all charging points on County Council land or highway.</li></ol> Series of clear actions and objectives laid out which will help to deliver said aims.



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Kent LTP (2016)	<ul style="list-style-type: none"> <li>• Economic growth and minimised congestion by delivering resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.</li> <li>• Affordable and accessible door-to-door journeys by promoting affordable, accessible and connected transport to enable access for all to jobs, education, health and other services.</li> <li>• Provide safer travel by providing a safer road, footway and cycleway network to reduce the likelihood of casualties, and encourage other transport providers to improve safety on their networks.</li> <li>• Enhanced environment by delivering schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment.</li> <li>• Provide better health and wellbeing by providing and promoting active travel choices for all members of the community to encourage good health and wellbeing, and implement measures to improve local air quality.</li> <li>• Enabling growth in the Thames Estuary</li> <li>• New Lower Thames Crossing</li> <li>• Bifurcation of port traffic</li> <li>• A solution to Operation Stack</li> <li>• Provision for overnight lorry parking</li> <li>• Ashford International Station signalling (Ashford Spurs)</li> <li>• Development of Thanet Parkway Railway Station</li> </ul>
Hampshire LTP Evidence Base (2020)	<p>Although Hampshire have yet to publish a fully revised LTP, they have published an evidence base which will provide the basis for this document. Key findings are:</p> <ul style="list-style-type: none"> <li>• According to the NIC congestion metric, South Hampshire is the fourth most congested built up area in Great Britain</li> <li>• South Hampshire has some of the poorest accessibility to employment (by both car and public transport) of any major urban area in Great Britain; this is likely caused by physical geography, high levels of congestion and dispersed employment land use</li> <li>• Aldershot/Farnborough conurbation has good connectivity to employment by car but relatively poor public transport connectivity especially in terms of urban public transport connectivity</li> <li>• On average ten times as many jobs in Hampshire are accessible by car as they are by public transport</li> <li>• Within towns in Hampshire; Romsey, Bordon and Totton have relatively higher levels of urban congestion and Lymington and Bordon have high levels of inter-urban congestion</li> <li>• The Waterside area has poor inter-urban connectivity by all modes of transport, inter-urban connectivity by public transport is poor across much of Hampshire outside the largest urban areas and is especially bad in Stubbington, Bordon and South Hayling</li> </ul> <p>The report doesn't provide specific recommendations, but results provide some guidance of a potential direction which future recommendations will lean.</p>
East Sussex LTP (2011)	<ul style="list-style-type: none"> <li>• Reduce congestion by improving the efficiency of the transport network and encouraging greater use of sustainable modes of transport.</li> <li>• Improve road safety for vulnerable road users – pedestrians, cyclists, motorcyclists and horse riders.</li> <li>• Reduce the number of people killed and seriously injured in road crashes.</li> <li>• Reduce greenhouse gas emissions, local air pollution and noise from transport.</li> <li>• Increase the resilience of transport infrastructure and services to the effects of climate change.</li> <li>• Improve personal health and well-being by encouraging and enabling increased physical activity through active travel.</li> <li>• Improving shortcomings in the rail infrastructure which affects both east/west movements along the coastal corridor, connections to Brighton, Ashford and Gatwick Airport, and between Hastings and London.</li> <li>• Improving bus services in rural areas.</li> <li>• Gap and Lewes town centre around Fisher Street.</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
West Sussex Connectivity Modular Strategic Study (2020) Network Rail	<p>This Study is intended to focus on the requirements of stakeholders and the rail industry for the next 20-30 years. As well as looking at rail provision, this Study also looks at wider transport issues and housing growth. The recommendations for funders from this Study aim to enable the railway will grow in a sustainable way to help balance the economy of the region and contribute to decarbonisation. Overall, three key strategic themes are identified:</p> <ul style="list-style-type: none"> <li>• Planning for sustainable growth</li> <li>• Wider transport connectivity</li> <li>• Rebalancing the economy</li> </ul> <p>The immediate interventions identified in this paper are:</p> <ul style="list-style-type: none"> <li>• Replace the Class 313 units with modern Coastway configured trains</li> <li>• Introduce the Train Service Specification Option 1, which requires no additional rolling stock or infrastructure</li> <li>• Improve coastal connectivity to London through improvements to the Class 377s to enable faster attaching/detaching</li> <li>• Advertise the last trains from Brighton to Worthing</li> <li>• Enable reduced level crossing down times by lengthening platforms that are too short for the longest trains</li> <li>• Enable faster east-west journeys and improve service resilience by progressing Worthing bi-directional working, see TSS Option 2</li> <li>• Enable later/earlier trains between Horsham and Gatwick Airport</li> <li>• Progress Worthing bi-directional working and an additional platform at Brighton through the RNEP process</li> </ul> <p>Other recommendations requiring further development with Transport for the South East:</p> <ul style="list-style-type: none"> <li>• Further development of TSS (Train Service Specifications) Options considering the following: <ul style="list-style-type: none"> <li>o Improve east-west journey times</li> <li>o Consistent intervals within the timetable</li> <li>o Optimising the mix of long-distance and stopping services</li> <li>o Increasing the volume of services between Brighton and Southampton/Bristol</li> <li>o Encapsulating the recommendations of the Solent Study</li> </ul> </li> <li>• Bus links connecting neighbourhoods and employment locations to stations with integrated timetables</li> <li>• Consistent approach to the options available for passengers to use other modes to connect to the railway</li> <li>• Improving connections from stations to the South Downs National Park</li> <li>• Exploit the opportunities for improved cycle and walking routes to the station and the facilities at the station to make interchange as easy as possible.</li> </ul>
Solent CMSP (2020) Network Rail	<p>This study has been completed as part of the Continuous Modular Strategic Planning (CMSP) approach adopted under the Long-Term Planning Process (LTPP). Solent is the largest growth area on Network Rail's Wessex route outside of greater London, with over 100,000 new homes planned to be built by the mid-2030s, as well as having several nationally important economic assets, most notably the Ports of Southampton and Portsmouth. Makes specific reference to the outer orbital study, noting that: In the Draft Transport Strategy for the South East (2019), TfSE emphasised the importance of developing the cross-regional passenger rail offer for journeys that avoid London in order to provide an alternative to the equivalent road journey. We are recommending that the Outer Orbital Area Study take forward and appraise the infrastructure options and the shortlisted train service options set out in this study as well as examining/developing complementary interventions covering the following:</p> <ul style="list-style-type: none"> <li>• Line speed improvements to improve east-west journey times;</li> <li>• Consistent spacing of train service intervals within the timetable;</li> <li>• Optimising the mix of long-distance and stopping services;</li> <li>• Increasing the volume of services between Brighton and Southampton/Bristol;</li> <li>• Encapsulating the recommendations of the West Coastway study.</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Strategic Economic Plans (SEPs) (2014)	<p>outline each LEP's vision and strategic priorities for their region up to 2020/21. The first round of SEPs were published by each LEP in 2014. These are currently being updated to reflect the emerging Industrial Strategy (described under "National Policy Context"). The next round of SEPs will outline a vision to 2030. The regions which currently have SEPs in the South East are:</p> <ul style="list-style-type: none"> <li>• Coast to Capital</li> <li>• Enterprise M3</li> <li>• Solent</li> <li>• South East</li> <li>• Thames Valley Berkshire</li> </ul> <p>The SEPs also outline the industrial and sectoral priorities for their region, which are based on each region's perceived economic strengths and stated growth ambitions. Please note that not all of the SEPs cover all of the areas highlighted to the right - they are selected based on what is representative of the 'general' SEPs in the South East</p>
Transport Delivery Plan (2013) Transport for South Hampshire	<p>This TDP identifies a set of schemes for the period up to 2026, framed by an overall approach to delivery, for the Transport for South Hampshire Area (Portsmouth to Southampton incl. Isle of Wight). It provides a comprehensive review of the area, and the schemes which are considered significant for its future development. Overall, it notes that 'The evidence shows that there is a need for transport intervention to support sustainable economic growth. In the absence of transport intervention, transport will act as a constraint on sustainable economic growth.'</p>
Portsmouth Local Flood Risk Management Strategy (2017)	<p>The Strategy include nine strategic objectives:</p> <ul style="list-style-type: none"> <li>• We seek to improve the knowledge and understanding of all sources of flood risk across Portsmouth, to include (in no particular order of importance): <ul style="list-style-type: none"> <li>-Surface water and run-off</li> <li>-Groundwater</li> <li>-Ordinary watercourses</li> <li>-Fluvial (main rivers)</li> <li>-Coastal</li> <li>-Reservoir</li> <li>-Sewer overload</li> <li>-Mains water supply bursts</li> </ul> </li> <li>• Identify and work in partnership with other authorities, stakeholders and the community who have a role in flood risk management.</li> <li>• Increase public awareness of all flood risk across Portsmouth.</li> <li>• Ensure that planning decisions are properly informed by flooding issues, by avoiding development at inappropriate locations and reducing flood risk wherever possible.</li> <li>• Maintain, and improve where necessary and affordable, flood risk management infrastructure and systems to reduce flood risk.</li> <li>• Identify through an action plan, appropriate measures, and schemes to manage flood risks providing balanced community and environmental benefits, and establish who is responsible for delivery of these measures.</li> <li>• Compile a funding plan for schemes listed on the action plan</li> <li>• For identified schemes, demonstrate compliance with the EU Water Framework Directive through a Strategic Environmental Assessment and Habitats Regulations Assessment</li> <li>• Detail all procedures in place to mitigate a flood event, including flood response and recovery</li> </ul>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
West Sussex Walking and Cycling Strategy 2016-2026	<p>Key objectives which are highlighted in this document include:</p> <ol style="list-style-type: none"> <li>1. To ensure that cycling and walking are recognised as important travel modes and therefore part of the transport mix</li> <li>2. To make cycling and walking the natural choice for shorter journeys (such as journeys to school), or as part of a longer journey</li> <li>3. To reduce the number of cyclists and pedestrians that are killed or seriously injured on our roads</li> <li>4. To support economic development by facilitating travel to work and services without a car</li> <li>5. To reduce congestion and pollution by encouraging and enabling people to travel without a car</li> <li>6. To increase levels of physical activity to help to improve physical health</li> <li>7. To help to maintain good mental health and staying independent later in life</li> <li>8. To increase the vitality of communities by improving access by bicycle and on foot</li> <li>9. To help people to access rural areas and enjoy walking and cycling</li> </ol>
West Sussex Bus Strategy 2018-2026	<p>Purpose of this document is to:</p> <ol style="list-style-type: none"> <li>1. To clearly state the County Council's aims and objectives for local buses and community bus transport between 2018 and 2026</li> <li>2. To determine the County Council's priorities for funding, reflecting its overall passenger transport aspirations.</li> <li>3. To provide guidance in support of prioritising bus infrastructure in new developments.</li> <li>4. To provide a framework through which local interest and community groups can assist in</li> <li>5. the development of passenger transport improvements</li> <li>6. To support interested parties in securing additional funding where available.</li> <li>7. To provide fit for purpose services and infrastructure supporting those services.</li> <li>8. To determine which opportunities within the Bus Services Act 2017 are supported</li> </ol>
West Sussex Local Transport Plan 2011-2026	<p>Key highlighted issues which will affect the country during the lifetime of the plan;</p> <ul style="list-style-type: none"> <li>- Economic performance</li> <li>- Climate change</li> <li>- Accessing services, employment and housing</li> <li>- Safety security and health</li> </ul> <p>Objectives which are stated in the plan:</p> <ul style="list-style-type: none"> <li>- Promoting economic growth</li> <li>- Tackling climate change</li> <li>- Providing access to services, employment &amp; housing</li> <li>- Improving safety, security &amp; health</li> </ul>



# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
South Downs National Parks Authority, Position Statement on A27 Route Corridor	<p>Key Statement: ‘there is a strong presumption against any significant road widening or the building of new roads through a (National) Park unless it can be shown there are compelling reasons for the new or enhanced capacity and with any benefits outweighing the costs significantly. Any investment in trunk roads should be directed to developing routes for long distance traffic which avoids the Parks’.</p> <p>Notes that there are 7 Special Qualities of the National Park.</p> <p>The Authority expects that any schemes which are ultimately proposed will:</p> <ul style="list-style-type: none"> <li>· Demonstrate that there is no alternative which would have avoided or had a lesser impact on the seven Special Qualities for which the National Park is nationally designated</li> <li>· Set out clearly, based on robust evidence, the nature and scale of these impacts</li> <li>· Demonstrate how these impacts would be mitigated or compensated for, bearing in mind that a National Park landscape is of national importance.</li> </ul> <p>These 7 Qualities are:</p> <ol style="list-style-type: none"> <li>1) Diverse, inspirational landscapes and breath-taking views. (impacts to be assessed should include: effects on landscape character, experience of the landscape and long, uninterrupted views)</li> <li>2) Tranquil and unspoilt places. (impacts to be assessed should include: noise, lighting, effects on dark night skies; reduction of disturbance from some existing roads)</li> <li>3) A rich variety of wildlife and habitats including rare and internationally important species (impacts to be assessed should include; effects on internationally, nationally and locally designated and protected habitats and species, fragmentation and connectivity issues)</li> <li>4) An environment shaped by centuries of farming and embracing new enterprise. (impacts to be assessed should include; effects on the farming economy and diversification and the ability of new enterprises to set up and develop sustainable businesses)</li> <li>5) Great opportunities for recreational activities and learning experiences. (impacts to be assessed should include; effects on rights of way and other access routes, the effects on sustainable transport schemes, severance of the NP from coastal communities)</li> <li>6) Well-conserved historical features and a rich cultural heritage. (impacts to be assessed should include; positive and negative effects on historic and protected monuments, historic villages and communities)</li> <li>7) Distinctive towns and villages, and communities with real pride in their area. (impacts to be assessed should include; positive and negative effects of any direct or indirect changes in traffic volumes and speeds, and access to local services)</li> </ol>
Bus Back Better – National Bus Strategy for England (2021)	<p>The strategy sets out the vision outlining how to deliver better bus services for passengers across England, through ambitious and far-reaching reform of how services are planned and delivered. The strategy aims to revolutionise the customer experience, promoting a simplified ticketing system, integration with other modes and supporting the goal for an inclusive transport system that attracts older and disabled people to use buses. The strategy sets out a roadmap to improve services for passengers and communities, urban and rural, and be fully informed by local needs, by increasing the role of Local Transport Authorities in designing and operating local bus services. Aligned with other national decarbonisation policy, the strategy also sets out an ambitious road map to a zero-emission bus fleet.</p>
National Infrastructure Commission – Natural Capital and Environmental Net Gain (2021)	<p>This document outlines the two-way relationship between infrastructure and natural capital. It highlights how infrastructure can have both a positive and negative impact on natural capital assets such as fresh water and clean air as well as how changes in the environment can increase costs of infrastructure (such as flooding). Infrastructure developers should consider the impact of infrastructure development on natural capital assets and take the opportunities to contribute to the environment and biodiversity as part of development. Infrastructure projects should target environmental net gain, ensuring that infrastructure developers leave the environment in measurably better state than they found it.</p>

# Policy Context Tables

Plan or Policy	Relevant Aims/Objectives/Key Messages
Traction Decarbonisation Network Strategy (2020)	<p>TDNS has been established to recommend which of three traction technologies (battery, electric and hydrogen) would need to be deployed where and when on the GB rail network in order to remove diesel trains and support the end of CO2 emissions from rail. Network Rail have calculated a need to provide:</p> <ul style="list-style-type: none"> <li>- 11,700 STKs of electrification</li> <li>- Battery operation over 400 STKs of infrastructure.</li> <li>- Hydrogen operation over 900 STKs of infrastructure.</li> <li>- 2,300 STKs where there is no clear technical choice.</li> </ul>
Connected Southampton - Transport Strategy for 2040 (LTP4 - 2019)	<p>The strategy ensures that any transport policies, strategy and delivery plans better reflect and support the bold and ambitious plans for sustainable and clean growth over the next twenty years. Connected Southampton will become the umbrella transport planning document for the city, and it consists of a number of component parts that together combine as a new LTP for Southampton, including the Joint South Hampshire Strategy, the Issues and Options evidence base, and the shorter-term implementation plans.</p> <p>The LTP changes its approach to transport planning from seeking to maximise the movement of vehicles to instead focus on improving the efficiency of transport corridors and places and making it easier for people to get about by a range of different travel choices. The LTP includes a strategic and place-based approach. The main ideas for 2040 proposed in the strategy include an integrated Mass Rapid Transit System for the city, creation of Active Travel Zones, a network of Park and Ride sites and a comprehensive cycle network.</p>
Southampton City Council Green City Plan 2020-30 (2020)	<p>The Green City Plan 2030 sets out an ambitious vision for a cleaner, greener, healthier and more sustainable council and how it will contribute to tackling some of the most challenging environmental issues in our city. It includes more than 60 specific actions which we will undertake to deliver this, outlines the progress that has already been made and how ongoing progress will be measured. In response to the climate emergency, the plan sets out five themes which commit to achieving net zero emissions in council commercial buildings by 2030, increasing the proportion of renewable energy generated, delivering clean air, protecting the natural environment and promote sustainable travel. Specifically on the fifth theme, the plan sets out the following targets:</p> <ul style="list-style-type: none"> <li>- 15% of journeys into the city will be by bike by 2027</li> <li>- Be in the top 10% UK cities for number of public electric vehicle charging units by 2025</li> <li>- Deliver two Active Travel Zones in the city by 2025</li> </ul>
Draft Portsmouth Transport Strategy 2020–2036 (2020)	<p>The strategy sets out the vision for how Portsmouth transport between now and 2036. The strategy is supported by an implementation plan that includes the individual schemes that deliver the vision. The strategy and implementation plan are supported by a wider set of documents that taken together will guide transport decision making in the city. The plan will build on the excellent partnership working and ensure we work strategically with neighbours in Solent.</p> <p>The LTP includes 20 policies, focusing on delivering cleaner air, prioritizing walking and cycling, transforming public transport, and supporting businesses and protecting key assets. Policy 11 promotes the development of a rapid transit network that connects key locations in the city with South East Hampshire, and facilitates future growth. Policy 12 aims to prioritise local bus services over general traffic to make journeys by public transport quicker and more reliable and support demand-responsive transport services. Other policies include working with public transport operators to deliver integrated, efficient and affordable services promoting local and regional connectivity; expanding the Portsmouth Park &amp; Ride to reduce pollution and congestion in the city centre.</p>



# Appendix B

## Socioeconomic Indicators

Area	GVA (2018, £m)	GVA (2008, £m)	GVA Growth (%)	GVA per capita (£)	Jobs Available	Eligible workforce (16-64)	Jobs minus workers	Jobs / Workforce (%)	Priority Sectors Jobs	Priority Sectors Jobs (%)	Priority Sector Quotient	Population (2019)	Population (2009)	Population Growth
Outer Orbital	81,031	62,686	29%	23,405	1,373,870	2,088,000	(714,130)	66%	160,965	11.7%	0.41	3,462,171	3,210,710	7.8%
South West (Outer Orbital)	42,060	32,359	30%	25,907	694,725	986,000	(291,275)	70%	102,545	14.8%	0.51	1,623,484	1,521,374	6.7%
South Central (Outer Orbital)	31,437	24,359	29%	22,281	546,285	846,600	(300,315)	65%	50,985	9.3%	0.32	1,410,944	1,298,734	8.6%
South East (Outer Orbital)	15,734	12,699	24%	18,355	293,780	504,200	(210,420)	58%	23,795	8.1%	0.28	857,216	789,620	8.6%
Inner Orbital	140,517	107,337	31%	35,906	1,846,655	2,400,100	(553,445)	77%	227,435	12.3%	0.43	3,913,426	3,614,802	8.3%
South West (Inner Orbital)	94,225	70,973	33%	42,018	1,134,900	1,383,100	(248,200)	82%	141,950	12.5%	0.43	2,242,472	2,092,937	7.1%
South Central (Inner Orbital)	22,773	19,300	18%	35,813	317,550	380,600	(63,050)	83%	48,135	15.2%	0.53	635,882	591,488	7.5%
South East (Inner Orbital)	32,424	24,518	32%	24,533	520,825	803,100	(282,275)	65%	48,075	9.2%	0.32	1,321,668	1,200,989	10.0%
South Central Radial	54,210	43,659	24%	26,485	863,835	1,227,200	(363,365)	70%	99,120	11.5%	0.40	2,046,826	1,890,222	8.3%
South West Radial	136,285	103,332	32%	35,253	1,829,625	2,369,100	(539,475)	77%	244,495	13.4%	0.46	3,865,956	3,614,311	7.0%
South East Radial	45,169	34,892	29%	22,046	758,315	1,227,100	(468,785)	62%	66,695	8.8%	0.31	2,048,852	1,874,915	9.3%
South East	226,759	174,429	30%	29,545	3,325,155	4,656,700	(1,331,545)	71%	399,585	12.0%	0.42	7,675,038	7,108,836	8.0%

Area	Current Dwellings (2019)	Planned Dwellings (up to 2050)	% Dwelling Growth	Current Jobs (2017)	Planned Jobs (up to 2050)	% Job Growth	Number of LSOAs in Planning Authority	Number of LSOAs in Most Deprived Areas	% of Total LSOAs	In Scope Population	Population NVQ4+	NVQ Level 4+ (%)
Outer Orbital	1,541,926	200,309	13%	1,373,870	129,332	9%	2,038	415	20%	2,081,200	834,300	40%
South West (Outer Orbital)	714,661	74,984	10%	694,725	33,725	5%	970	195	20%	983,300	392,300	40%
South Central (Outer Orbital)	632,893	76,507	12%	546,285	26,256	5%	822	121	15%	843,400	376,400	45%
South East (Outer Orbital)	386,842	77,261	20%	293,780	92,066	31%	497	144	29%	503,300	166,300	33%
Inner Orbital	1,646,633	278,783	17%	1,846,655	294,760	16%	2,293	243	11%	2,396,900	1,077,400	45%
South West (Inner Orbital)	951,399	135,195	14%	1,134,900	104,511	9%	1,334	82	6%	1,381,200	673,900	49%
South Central (Inner Orbital)	283,964	31,714	11%	317,550	38,166	12%	368	16	4%	379,600	193,000	51%
South East (Inner Orbital)	551,581	125,003	23%	520,825	169,010	32%	757	150	20%	802,800	302,900	38%
South Central Radial	916,857	108,221	12%	863,835	64,422	7%	1,190	137	12%	1,223,000	569,400	47%
South West Radial	1,666,060	210,179	13%	1,829,625	138,237	8%	2,304	277	12%	2,364,500	1,066,200	45%
South East Radial	884,030	186,359	21%	758,315	232,760	31%	1,176	282	24%	1,225,900	437,500	36%
South East	3,326,636	491,630	15%	3,325,155	418,491	12.6%	4,504	691	15.3%	4,646,700	1,980,700	42.6%

Area	Average Workplace Earning	% South East Average	Average Resident Earning	% South East Average	Average House Price (2019)	Affordability Ratio (2019 - %)	Total Carbon Emissions (2018) kTCO2	Transport Carbon Emissions (2018) kTCO2	Minor Road Carbon Emissions (2018) kTCO2	Carbon Emissions per capita TCO2	Transport Carbon Emissions per capita TCO2	Minor Road Carbon Emissions per capita TCO2	Transport as % of total Carbon emissions
Outer Orbital	28,642	96%	30,701	93%	290,389	9.5	13,737	6,017	2,178	4.0	1.7	0.63	44%
South West (Outer Orbital)	29,144	98%	30,847	93%	273,147	8.9	6,959	3,183	1,046	4.3	2.0	0.64	46%
South Central (Outer Orbital)	28,247	95%	31,525	95%	326,031	10.3	5,181	2,223	924	3.7	1.6	0.65	43%
South East (Outer Orbital)	27,363	92%	29,831	90%	260,757	8.7	3,285	1,305	449	3.8	1.5	0.52	40%
Inner Orbital	30,907	104%	35,231	106%	360,162	10.2	19,669	9,368	2,118	5.0	2.4	0.54	48%
South West (Inner Orbital)	31,038	100%	36,506	110%	395,787	10.8	11,086	5,231	1,298	4.9	2.3	0.58	47%
South Central (Inner Orbital)	31,879	100%	35,202	106%	406,076	11.5	3,125	1,523	381	4.9	2.4	0.60	49%
South East (Inner Orbital)	30,236	100%	33,181	100%	295,557	8.9	6,640	3,134	613	5.0	2.4	0.46	47%
South Central Radial	29,582	99%	32,665	99%	350,822	10.7	8,306	3,746	1,305	4.1	1.8	0.64	45%
South West Radial	30,318	102%	34,151	103%	343,180	10.0	18,045	8,414	2,344	4.7	2.2	0.61	47%
South East Radial	29,155	98%	31,912	96%	281,902	8.8	9,327	4,123	987	4.6	2.0	0.48	44%
South East	£29,807	100.0%	£33,108	100.0%	£324,890	9.8	34,496	15,764	4,462	4.5	2.1	0.58	46%





# Appendix C

## Development Opportunities and Challenges

# Development Opportunities and Challenges (1 of 2)

Major Economic Hub	Main location of housing growth	Main location of employment growth	Strategic and Major Road Network risks	Public Transport opportunities	Active Transport opportunities
<b>Ashford</b>	Town centre, e.g. former Powergen site, (660 homes), and to the south and east of the town, e.g. Chilmington Green (2,500 homes), and the Cheesemans Green (559 homes).	North of the town e.g. Eureka Business park.	Poor: Development to the north is well served by the M20, but developments on the south will be forced to use the A2070, which sees some congestion in the morning peak.	Fair: Some development will be close to Ashford International railway station, however most development will be on the periphery of the town.	Good: Most housing development planned close to future major employment sites.
<b>Bognor Regis</b>	Periphery of the town e.g. west of Bersted (6,250 homes) and Pagham North (2,000 homes).	The northern side of the town.	Poor: Development risks adding more stress to the A259 and the A269.	Fair: Some development close to the rail station, however most on the periphery of the town.	Fair: Approximately half of planned developments will occur in locations accessible to the town centre/public transport sites by walking/cycling.
<b>Brighton and Hove</b>	Across the area, particularly at the Marina and along the River Adur e.g. the Shoreham harbour development (2,425 homes).	Predominantly in the city centre.	Poor: Pressure will be added to the A259, A23 and A270. These roads already see significant congestion.	Good: Most development will be well served by Brighton, Southwick, Hove and Mouslecoomb rail stations.	Good: Most development is situated within walking/cycling distance of the town centre and/or public transport hubs.
<b>Chichester</b>	Mostly to the north east of the city e.g. North East Chichester Strategic Development (200 homes) and the Land North of Stane Street (300 homes).	One major site to the west of the city, and one between Chichester and Tangmere.	Poor: Pressure will be added to the A27 and the A259. The A27 already sees significant congestion in the AM peak.	Fair: Most development will occur over 1.5km to the north of Chichester station.	Fair: Most housing development is on the periphery of Chichester urban area, but within feasible walking/cycling distance of the train station/town centre.
<b>Eastbourne</b>	Most development in the centre in disparate sites e.g. 20 Upperton Road (73 homes), and to the north near Polegate and Stone Cross.	Predominantly near the harbour and the town centre.	Poor: Developments risk adding strain to the A27 and the A22. Both these roads see some congestion near major intersections.	Good: Most housing development planned near Eastbourne and Polegate stations.	Good: Most housing development planned within walking/cycling distance of public transport sites and the town centre.
<b>Folkestone</b>	Large spread with some near the harbour e.g. the Folkestone Seafront development (1,000 homes), some to the west of the centre e.g. Shorncliffe Garrison, (1,200 homes) and a large site near Westenhanger (5,500 homes).	Some in the town centre, but large volumes of development will occur at Westenhanger and Martello Lakes.	Poor: Developments may add some strain to the M20.	Fair/poor: Most development will occur around Folkestone Central railway station, but there are two major developments over 3.5km from the station.	Fair/poor: More than half of developments are located beyond walking/cycling distance from the town centre/public transport network.

## Development Opportunities and Challenges (2 of 2)

Major Economic Hub	Main location of housing growth	Main location of employment growth	Strategic and Major Road Network risks	Public Transport opportunities	Active Transport opportunities
<b>Hastings/ Bexhill</b>	In Hastings development is focused in the town centre e.g. Hastings Station Yard (103 homes) and around the perimeter ring road. In Bexhill development is focussed on the perimeter of town e.g. Gullivers Bowls Club (39 homes).	In Hastings, focused in the town centre and around the perimeter ring road in the north east of the town. In Bexhill, mostly on the perimeter of town.	Poor: Developments risk adding pressure to the A259 between Hastings and Bexhill and the A21 into Hastings.	Poor: In Hastings, some development will occur near the railway station, but most will occur on the perimeter of the town to the north east. In Bexhill, development is also quite far from the town centre.	Fair: Approximately a third of development will occur in sites which are beyond easy walking/cycling access of the city centre.
<b>Portsmouth</b>	Majority around Tipner island (1800 homes) the city centre.	Focussed on Horsea island, and around Eastney.	Fair: This may add some traffic to the M275 and the M27.	Fair: The development in the city centre will be well accommodated, while development around Tipner will be poorly connected.	Fair: The development in the city centre provides good opportunities for active transport, while development at Tipner will be more challenging.
<b>Southampton</b>	Focused in Southampton and Portsmouth city centres e.g. Westquay Watermark, (260 homes), and Centenary Quay (853 homes). There are several other developments across the wider South Hampshire.	Focused in Southampton town centre.	Poor: Likely to add strain to the M27 and other strategic and major roads in this area, which already experience serious congestion, notably around major intersections.	Good: Most development will occur on public transport corridors and near public transport hubs (such as Southampton railway station). There is also a significant level of brownfield site regeneration in Portsmouth.	Good: Most future development is planned within walking and/or cycling distance of employment sites, amenities and public transport hubs.
<b>Thanet</b>	Across the area with particularly large developments at Westgate (2,000 homes) and Manston Court Road (1,400 homes).	Concentrated at the Westwood retail park and to the north of Manston airport.	Poor: There is a risk these developments will put pressure on the A28 and A299.	Fair/poor: Some development will occur close to Ramsgate and Margate railway stations, but a large proportion will occur over 2.5km from either station.	Poor: A significant amount of development will occur in locations that are beyond reasonable walking/cycling distance from the town centre and/or public transport hubs.
<b>Worthing</b>	There will be some housing development around the city centre, with some closer to Lancing.	The majority of job growth will happen around Worthing city centre.	Good: Unlikely to add significant additional strain to the road network.	Good: The majority will occur close to the city centre.	Good: The majority of development is planned within walking and/or cycling distance of employment sites, amenities and public transport hubs.

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