Wokingham Borough Council

Local Transport Plan 4

Annex A: Evidence Base

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1.1 Background

1.1.1. WSP have been commissioned by Wokingham Borough Council to develop their next Local Transport Plan, LTP 4.

1.1.2. As part of these works, WSP have produced an evidence base. The focus of this report is to provide an overview of empirical data of the existing social, environmental and transport conditions within Wokingham Borough to inform the LTP4.

1.1.3. A comprehensive evidence base will assist in determining the areas key social, physical and economic characteristics. This helps to ensure that transport investment focuses on the key challenges facing Wokingham Borough.

1.2 Structure of the Report

1.2.1. The report is set out in the following sections:

- Section 2 – Location and Demographics
- Section 3 – Transport Emissions
- Section 4 – Environment
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2 Location and Demographics

2.1 Location

2.1.1. Wokingham Borough is an inland unitary authority within the Royal County of Berkshire in the South East region of England. It is located between the urban areas of Reading and Bracknell. It is made up of the following fourteen parish and three town councils, as shown in Figure 2-1.

Parish Councils

- Arborfield & Newland
- Hurst
- Sonning
- Winnersh
- Barkham
- Remenham
- Swallowfield
- Wokingham Without
- Charvil
- Ruscombe
- Twyford
- Finchampstead
- Shinfield
- Wargrave

Town Councils

- Earley
- Wokingham
- Woodley

Figure 2-1 - Parish and Town Councils in Wokingham Borough

Source: Wokingham Borough Council, 2022

2.1.2. The M4 motorway runs east to west through the centre of the Borough linking it with London, Heathrow Airport, the South West and South Wales. The A329(M) runs north-west to south-east providing links to Reading, Bracknell and the M3 via the A322. Other key roads passing through the Borough include the A4, A33, A321, A327 and A329.

2.1.3. The Borough has six railway stations: (i) Twyford, (ii) Wargrave, (iii) Earley, (iv) Winnersh Triangle, (v) Winnersh, and (vi) Wokingham. Twyford lies on the Great Western main line which provides links to London, Oxford, the South West and South Wales and on the Elizabeth Line providing travel through London. Wargrave lies on the branch line providing a link between Twyford and Henley-on-Thames. Earley, Winnersh Triangle, Winnersh and Wokingham all lie on the London Waterloo to Reading line and Wokingham also lies on the North Downs Line between Reading, Guildford and Gatwick Airport.

2.1.4. National Express also provide coach services to London, Gatwick and Heathrow Airports, the South West and South Wales from Mereoak Park and Ride site. Mereoak Park and Ride is located to the south of M4 Junction 11. The Thames Path National Trail and NCN routes 4 and 23 also pass through the Borough. In addition, a further service for Heathrow from Thames Valley Park and Ride commenced in summer 2023.

2.2 Current Population

2.2.1. The population of the Borough is centred on its four main urban centres of Earley, Winnersh, Wokingham town and Woodley along with the two communities of Finchampstead and Twyford. Wokingham town is the largest settlement in the Borough, containing just over a quarter of the total population. It is also the main commercial, cultural and administrative centre.

2.2.2. Based on the 2021 census data, the population of Wokingham Borough is 177,500. The borough has an above average population density, with 992 people per square km compared with 434 people per square km across England as a whole.

2.2.3. When compared to the local authority districts it borders, Wokingham Borough is the third smallest by area but has the third-largest population density, behind only Bracknell Forest and Reading, as shown in Table 2-1.

Table 2-1 - 2021 populations of local authority districts bordering Wokingham Borough

Local authority district	Geography	Area (sq. km)	Population	Population density (people per sq. km)
Reading	Unitary authority	40	174,200	4355
Bracknell Forest	Unitary authority	109	124,600	1143
Wokingham	**Unitary authority**	**179**	**177,500**	**992**
Windsor and Maidenhead	Unitary authority	197	153,500	779
Wycombe	Non-metropolitan district	325	174,641	538
Hart	Non-metropolitan district	215	99,400	462
Basingstoke and Deane	Non-metropolitan district	634	185,200	292
West Berkshire	Unitary authority	704	161,400	229
South Oxfordshire	Non-metropolitan district	679	149,100	219

Source: Office for National Statistics (ONS), 2021 Census, Crown Copyright 2021

2.2.4. Between 2011 and 2021, Wokingham Borough's population increased by 15% from 154,380 to 177,500 (increase of 23,120). This is more than double the population growth across England and Wales of approximately 6.3% over the same period.

2.2.5. Of the total Wokingham Borough's population of 177,500, 19% were aged 15 years and under, 63% aged 16-64 and 17% post-retirement (65+).

2.2.6. Table 2-2 shows the growth of different age groups between 2011 and 2021. The population of traditional working-age people (16-64) in Wokingham Borough increased by 11% (5,278 people), whereas there was a larger growth in the post-retirement age band (65+) of 28% (6,711).

Table 2-2 - Population of Wokingham by age group in 2011 and 2021

Age Bracket (Years)	2011	2021	% Change
0-15	29,322	34,600	18%
16-64	101,269	112,400	11%
65+	23,789	30,500	28%
Total population	**154,380**	**177,500**	**15%**

Source: Office for National Statistics (ONS), 2021 Census, Crown Copyright 2021

2.2.7. Table 2-3 shows that Wokingham Borough is broadly in line with many of the local authority districts it borders. However, Reading and Bracknell Forest both have a higher proportion of working age residents and lower percentage of post-retirement age residents.

Table 2-3 - Breakdown of population by age bracket for Wokingham and adjacent local authority districts in 2021

Local authority district	0-15	16-64	65+
Basingstoke and Deane	18%	65%	17%
Bracknell Forest	19%	66%	15%
Hart	18%	62%	20%
Reading	18%	70%	12%
South Oxfordshire	17%	62%	21%
West Berkshire	18%	63%	19%
Windsor and Maidenhead	18%	64%	18%
Wokingham	19%	63%	18%
Wycombe	21%	61%	19%
England	*17%*	*64%*	*19%*

Source: ONS Census 2021, Crown Copyright 2021

2.2.8. Based on ONS Census 2021, the 16-64 age group in Wokingham exhibits an older population structure in comparison to the national average in England. Notably, Wokingham has a lower proportion of adults aged 20 to 35 years in comparison to England and there is a substantial proportion of older working-age individuals aged 40 to 55.

2.2.9. Although the proportion of residents aged 65 and above does not surpass the England average, the considerable number of individuals currently aged 40 to 55 suggests an impending trend of population aging in Wokingham over the next decade and beyond. Moreover, this aging trajectory is anticipated to exhibit a higher rate of increase compared to other geographic areas.

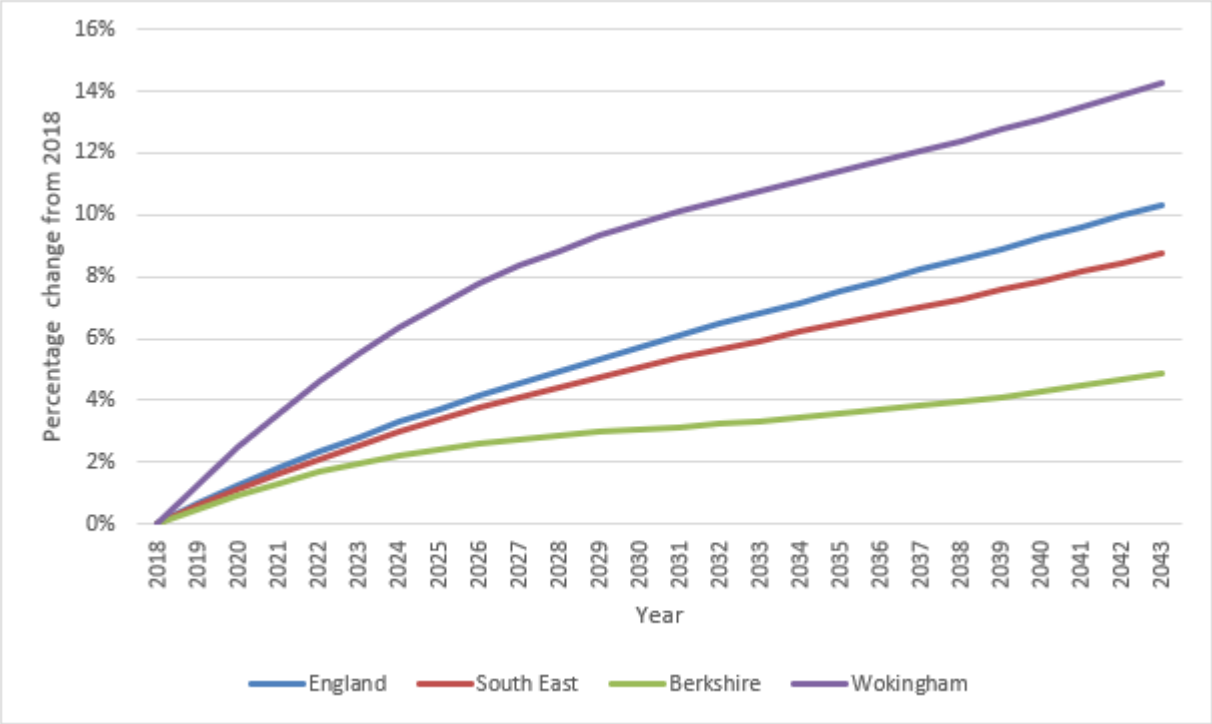
2.3 Future Population Projections

2.3.1. Figure 2-2 presents the projected increase in population between 2018 and 2043 in Wokingham Borough, Berkshire, the South East and across England. The growth rates suggest Wokingham Borough experiencing slightly higher growth rates than others.

2.3.2. In Berkshire, however, population growth rates are projected to be slower with a rise in population of 5% between 2018 and 2043. The population growth in Berkshire shows some minor fluctuations, but overall, it maintains a moderate growth trajectory.

2.3.3. In Wokingham Borough, the projected growth equates to an additional 23,922 people over the 25-year period. The recent 2021 census population data however shows that between 2011 and 2021 there has been a growth of 23,120 (15%) in population. This indicates population growth could be above the 25-year projections.

Figure 2-2 - Projected change in population from 2018 to 2043, by area



Source: ONS 2018 population projections, Crown Copyright 2019

2.4 Migration

2.4.1. Tale 2-3 summarises the net migration into / out of Wokingham Borough from the boarding local authority districts between June 2014 and June 2019. It shows that across the five-year period, 24,530 people moved into Wokingham Borough from bordering local authority districts and 19,383 people moved out of Wokingham Borough to bordering local authority districts.

Table 2-4 - Net migration from June 2014 to June 2019 in/out of Wokingham Borough from bordering local authority districts

Local authority district	Migration in	Migration out	Net migration
Reading	12,759	8,123	4,636
Windsor and Maidenhead	2,386	1,209	1,177
Bracknell Forest	4,684	3,706	978
South Oxfordshire	989	1,224	-235
Hart	903	1,257	-354
Basingstoke and Deane	1,052	1,485	-433
West Berkshire	1757	2,379	-622
Total	24,530	19,383	5,147

Source: ONS June 2019 internal migration matrices of moves, Crown Copyright 2019

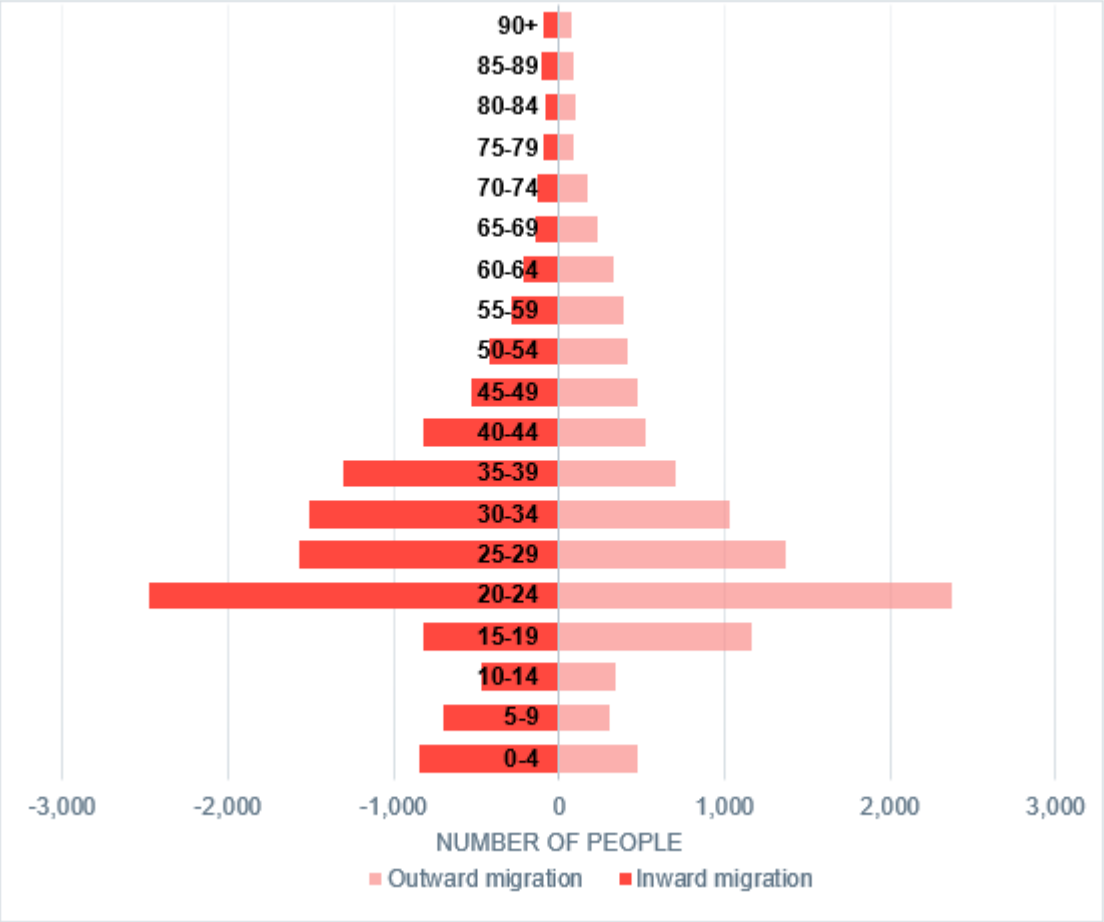
2.4.2. The overall net migration from most of the boarding local areas are often very small, with similar numbers migrating in and out of Wokingham Borough. The notable exception is Reading, where migration into Wokingham Borough far exceeded outward migration. This accounted for approximately 1000 per year migrating from Reading into Wokingham.

2.4.3. Figure 2-3 breaks down inward and outward migration by age band in 2019 up to the month of June for Wokingham Borough. It shows that amongst 15-to-24-year-olds, outward migration exceeds inward migration, with a total of 3,299 moving into the Borough and 3,536 moving out. This is largely due to school leavers moving on to attend university or to pursue opportunities elsewhere.

2.4.4. However, amongst 25-to-49-year-olds, inward migration far exceeds outward migration, with a total of 5,734 moving into Wokingham Borough and only 4,009 moving out. This indicates that postgraduates and professionals relocate to the Borough.

2.4.5. Amongst those aged over 65 there was a slightly smaller net outward migration of 140.

Figure 2-3 - Wokingham Borough migration by age band, year to June 2019



Source: ONS June 2019 internal migration moves by age band, Crown Copyright 2019

2.5 Deprivation

2.5.1. The English Index of Multiple Deprivation (IMD) scores recorded by the Ministry of Housing, Communities and Local Government in 2019 for Wokingham Borough and the bordering local authority districts are shown in Table 2-4. In this table, a rank of 1 indicates the most deprived local authority district in England and a rank of 317 indicates the least deprived local authority district in England.

Table 2-5 - Average English IMD score and rank of Wokingham Borough from bordering local authority district (2019)

Local authority district	IMD - Average score	IMD - Rank of average score (1 to 317)
Reading	19.6	141
Basingstoke and Deane	12.8	243
Wycombe	10.7	281
Bracknell Forest	10.2	286
West Berkshire	10.0	289
South Oxfordshire	8.5	302
Windsor and Maidenhead	8.4	304
Wokingham	**5.8**	**316**
Hart	5.5	317

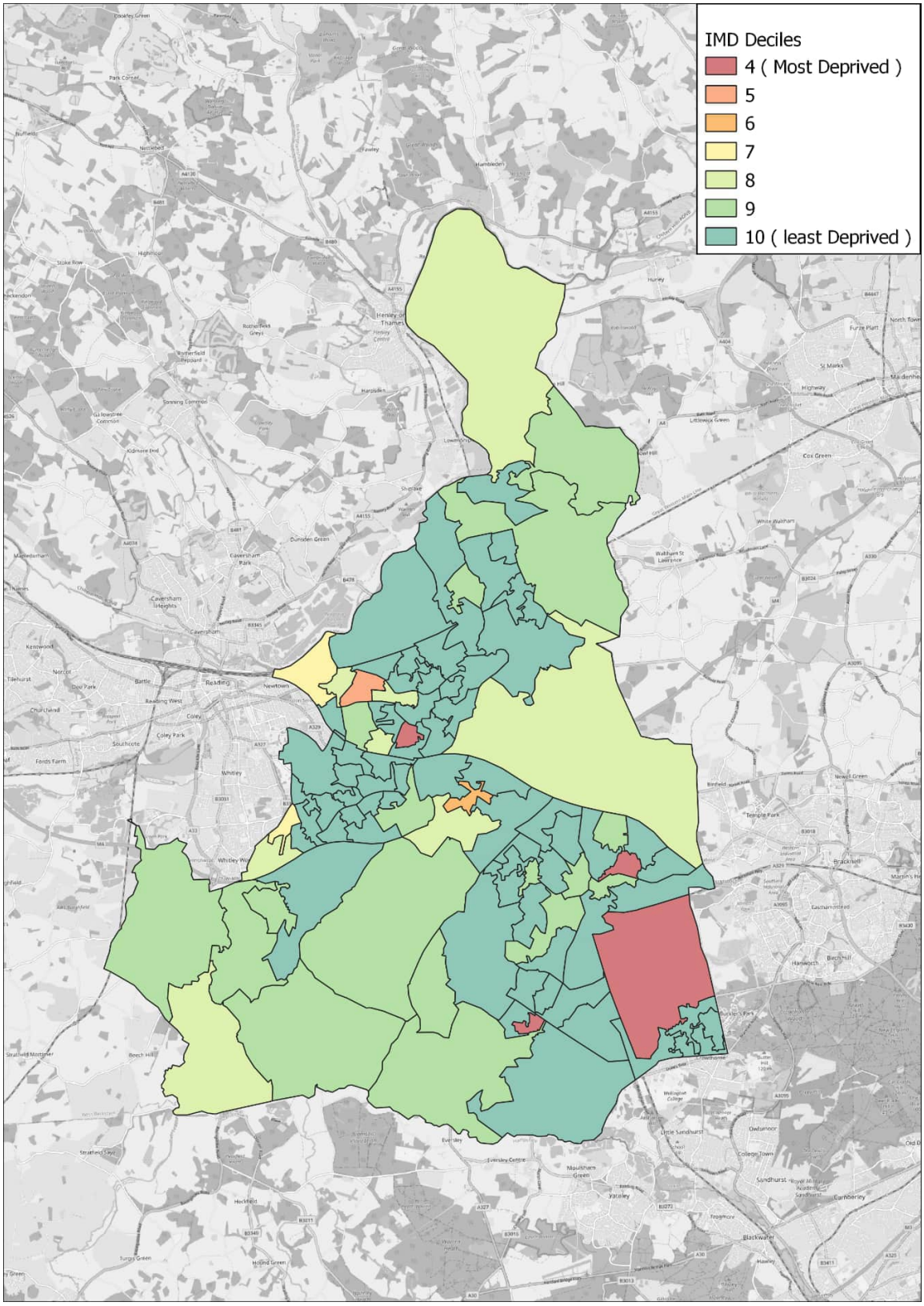
Source: Ministry of Housing, Communities and Local Government Indices of Multiple Deprivation 2019, Crown Copyright 2019

2.5.2. Table 2-4 shows that Wokingham Borough is the second least deprived local authority district in England. The majority of the bordering local authority districts are also some of the least deprived areas in England. The main exception is Reading, which is ranked 141. Reading also has 5% of its Lower Super Output Areas (LSOAs) that are considered to be in the 10% most deprived in England.

2.5.3. Figure 2-4 illustrates the levels of deprivation by LSOA in Wokingham Borough. It shows that, although Wokingham Borough is the second least deprived local authority district in England, it still has four LSOAs that are in the 4th most deprived deciles in England. These areas are shown in light red on the map and cover an area to the south-east of Wokingham town centre; part of the Norreys Estate near Wokingham town centre; part of Finchampstead; and a part of Woodley.

2.5.4. Based on 2019 mid-year population estimates these four LSOAs accounted for 4% of the population in the Borough. Deprivation is likely to also exist outside of these four LSOAs.

Figure 2-4 - Level of deprivation by Lower Super Output Area in Wokingham Borough



Source: IMD deciles 2019, Ministry of Housing, Communities and Local Government, Crown Copyright 2019

3 Transport Emissions

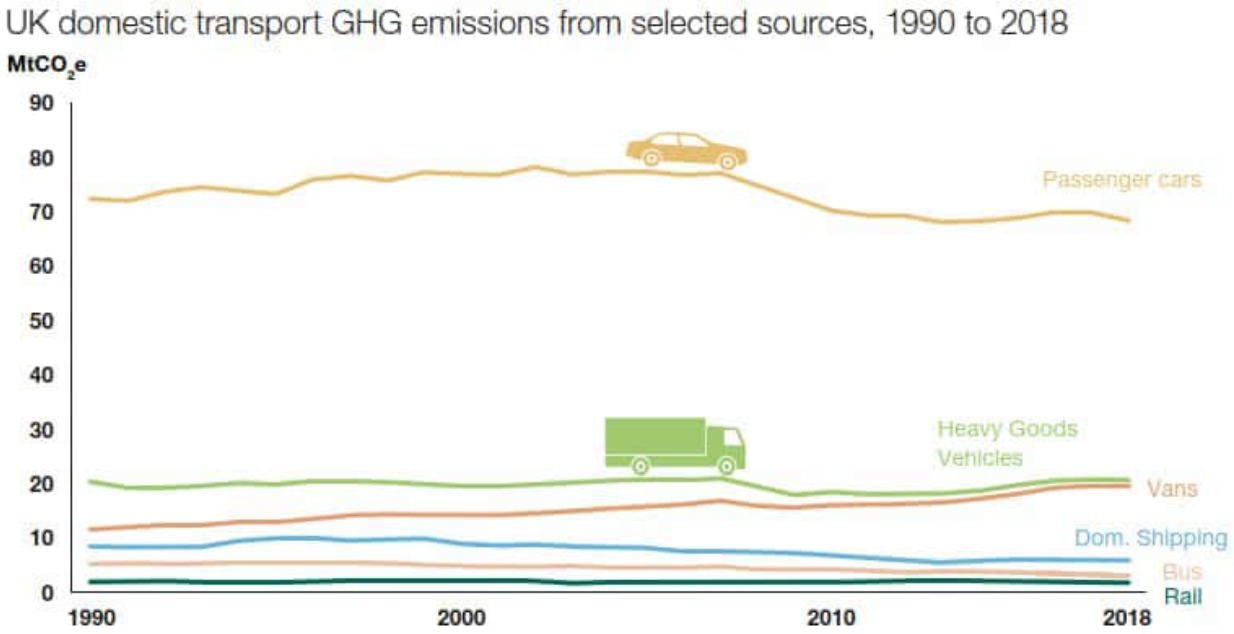
3.1 Introduction

3.1.1. Wokingham Borough Council declared a climate emergency in 2019 and commitment to playing as full a role as possible to reduce carbon footprint and to be net zero by 2030.

3.1.2. In March 2020, the Department for Transport published 'Decarbonising Transport: Setting the Scene' ahead of the government's anticipated Net Zero Strategy. This document was published to start building a picture around the changes required to the transport industry as it produces the highest levels of greenhouse gas emissions within the UK.

3.1.3. The document highlights that passenger cars have produced the greatest amount of greenhouse gases emissions within the transport industry, as shown in Figure 3-1 below.

Figure 3-1 - Greenhouse gas emissions associated with different modes across the UK between 1990 to 2018



3.2 Carbon

3.2.1. The Wokingham Climate Emergency Action Plan (CEAP) was developed in 2020 to define the activities to be undertaken by the borough council to reach the 2030 net-zero carbon target. The action plan was developed in accordance with the international, national and regional legislations such as UN Sustainable Development Goals, The Clean Growth, Road to Zero, draft Berkshire Local Industrial Strategy (BLIS) and Thames Valley Berkshire Local Economic Partnership Strategic Economy Plan through a collaboration effort supported by public consultations since August 2019.

3.2.2. The CEAP was prepared based on the current context whilst considering the aspirations of future. In addition, the action plan also aligns with the Council Plan priorities including provision of clean and green spaces in addition to becoming net zero, thereby keeping the borough moving by encouraging active and sustainable travel modes and enriching residents' lives.

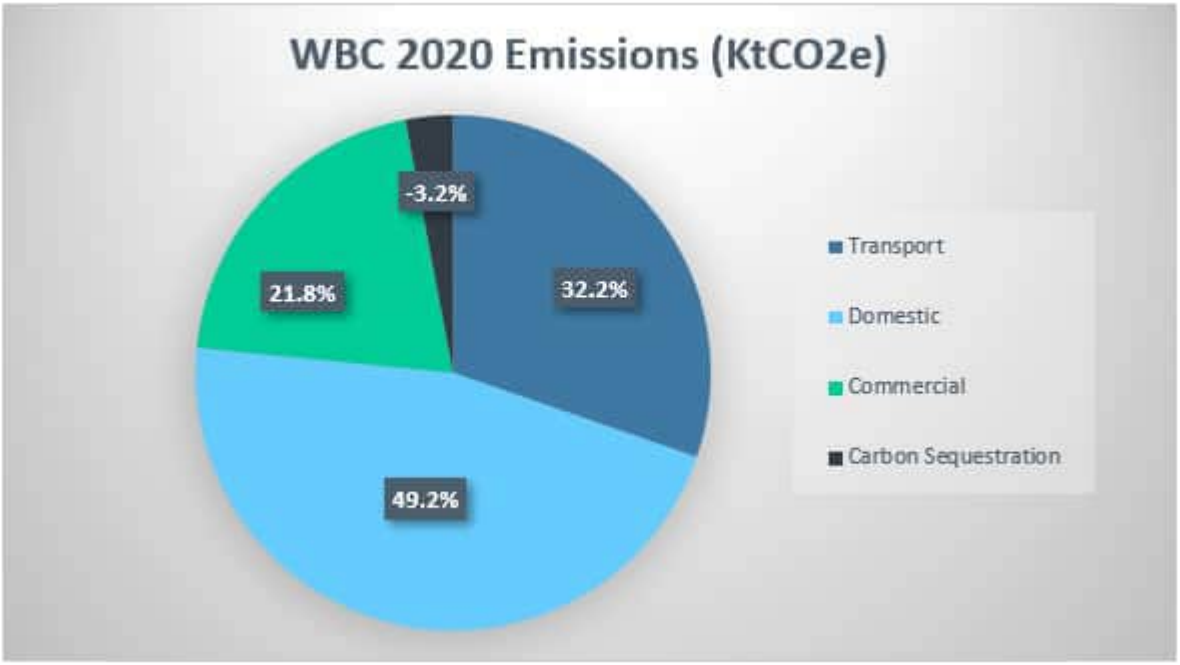
3.2.3. As part of its commitment to net zero, the council also updates the action plan every year in the annual climate emergency progress report based on the assessment of the current situation and determines its future actions in relation to the committed ten-year target.

3.2.4. Based on government data and estimated using the Department for Energy Security and Net Zero (DESNZ) method, Wokingham Borough's carbon footprint is 505 $ktCO_2$. The carbon footprint compromises transport emissions (32.2%), emissions from industrial and commercial sector (21.8%), and domestic sector emissions (49.2%), with a contribution of (-) 3.2% from carbon sequestration projects.

3.2.5. Within the Borough, transport emissions contribute 162.93 $ktCO_2$ to the overall carbon footprint of the Borough in 2020. A roads account for 61.2 $ktCO_2$, minor roads account for slightly more at 94.15 $ktCO_2$ and other modes of transport account for the least at 7.55 $ktCO_2$.

3.2.6. Figure 3-2 below shows the break-down of Wokingham Borough's Emissions in 2020 from DESNZ.

Figure 3-2 - Carbon Footprint of Wokingham Borough in 2020 (ktCO2)



3.2.7. Based on the global framework of Greenhouse Gas Protocol, the emissions occurring inside and outside Wokingham borough were divided into the following three categories:

- **Scope 1:** Emissions associated with combustion of fuels directly by a consumer. Within Wokingham this mainly refers to gas use from heating, cooking and hot water, and petrol / diesel used by vehicles whilst they are on the Borough's roads/
- **Scope 2:** Energy which is purchased from elsewhere but used by a consumer. Within Wokingham this means the electricity used in the borough. The emissions are created at power stations located outside of Wokingham, but the electricity is used within the Borough supplied via the electricity grid.
- **Scope 3:** Emissions resulting from the behaviour and activity of a consumer but occurring from sources outside of their control. Within Wokingham these are generally consumption-based emissions, which are out of the scope of the Borough's carbon footprint. However, the council will support behavioural change through the actions in this plan.

3.2.8. It is worth noting that these figures exclude sectors that are beyond the council's scope of influence. An example of this is the emissions from major transport links such as the M4 which creates 100.02 $ktCO_2$ and is managed by National Highways. Another example is diesel rail trains which contribute 6.19 $ktCO_2$ and are managed by Network Rail and the train operating companies.

3.3 Air Quality

3.3.1. Air pollution has a negative impact on the health of those living and working in areas with poor air quality. There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory conditions, lung cancer, exacerbates asthma and has a contributory role in mortality. Public Health England (PHE) figures state that 130 annual deaths are attributed to fine particulate matter (PM) air pollution in the Wokingham Borough Council area annually[1].

3.3.2. Under the Environment Act 1995 all Local Authorities are required to assess air quality against a set of national targets for seven key pollutants. These include, carbon monoxide, benzene, 1,3-butadiene, lead, nitrogen dioxide, sulphur dioxide and fine particles (PM10).

3.3.3. The two components of exhaust gases that are of most concern for human health are nitrogen dioxide (NO_2) and particulate matter (PM) and in Wokingham Borough, and across the UK, road vehicles are the largest polluting sector[2] with vehicle emissions being the primary reason for air quality breeches in Wokingham Borough.

[1] Estimating Local Mortality Burdens associated with Particulate Air Pollution, PHE 2014
[2] Causes of Pollution, Defra 2011

3.3.4. Air Quality Management Areas (AQMAs) must be declared where pollution exceeds legal limits set in the Air Quality (England) Regulations 2007. Under the reserve powers of the Localism Act 2011 any fines can be passed down to local authorities whose act or omission contributes to a breach.

3.3.5. After declaration, the authority must prepare an Air Quality Action Plan (AQAP) within 12-18 months setting out measures it intends to put in place in pursuit of the objectives. Typically, the recorded exceedances are for Nitrogen Dioxide based on the following criteria.

- Annual mean NO_2Concentration of 40 µg/m3.
- Hourly mean NO_2Concentration of 200 µg/m3 not exceeded more than 18 times a year.

3.3.6. Wokingham Borough has three AQMAs as detailed below.

- Wokingham town Centre AQMA covering Peach Street, Broad Street, Shute End, Denmark Street and London Road in Wokingham town centre, declared in 2015.
- Twyford Crosswords AQMA covering the A321 crossroads in Twyford, declared in 2015.
- Wokingham M4 AQMA covering along and either side of the M4 throughout the whole borough, declared in 2001 and amended in 2004.

3.3.7. Table 3-1 below shows the locations in Wokingham Borough that exceeded the NO2 legal requirement of 40 µg/m3 in 2017, 2018, 2019, 2020 and 2021 alongside the AQMA sites.

3.3.8. In 2020 and 2021, all locations were below the legal limit, although these years may be considered as anomalous years due to the impact of the Covid-19 pandemic reducing private vehicle usage for large parts in these years.

Table 3-1 - Locations in Wokingham Borough that exceed the annual NO_2 Legal Limit

Location	Site Type	Annual Mean NO2 Monitoring Results: Non-Automatic Monitoring (µg/m3)				
		2017	2018	2019	2020	2021
Wokingham Centre AQMA	Roadside	39.2	33.4	36.7	24	27.6
Giggling Spring, Shute End	Roadside	44	41.3	41.8	28.6	36.5
Buckingham Court	Roadside	45	36	38.6	25.9	31.2
Rectory Rd, Wokingham	Roadside	49.1	39.3	39.3	29	31.9
M4 AQMA	Roadside	39.1	30.1	33.3	20.7	23
Twyford Crossroads AQMA	Roadside	44.9	42.6	42.8	31	32.5
1 Waltham Rd, Twyford	Roadside	41.8	35.7	36.9	23.3	27.8

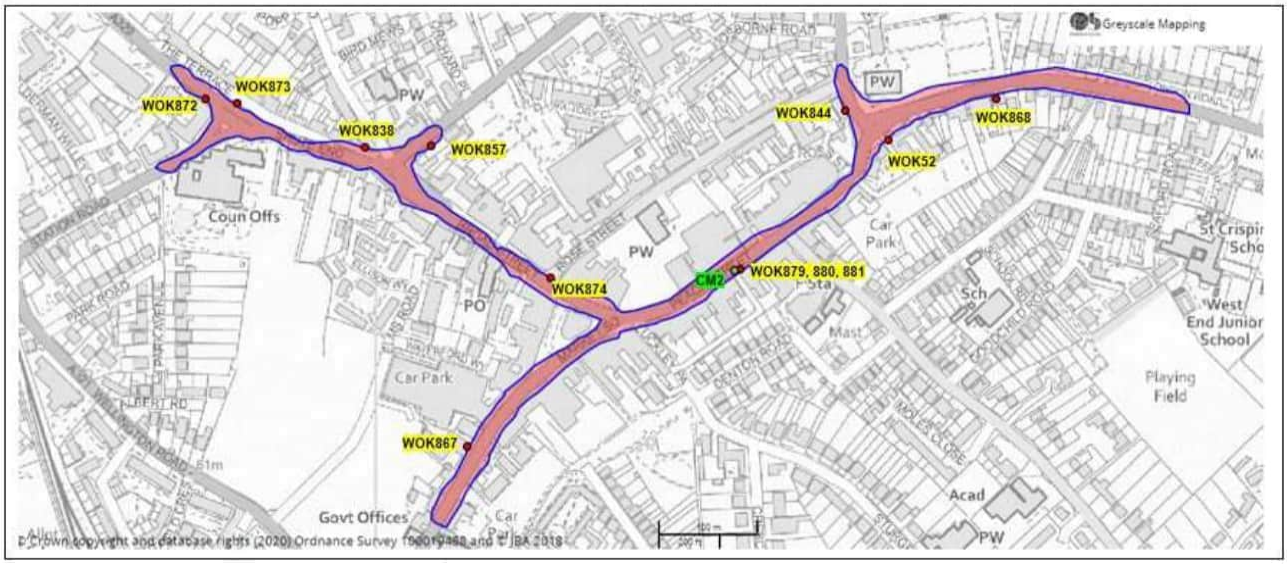
Source: Wokingham Annal Air Quality monitoring reports

3.3.9. Figure 3-3 below shows the location of NO_2 diffusion tubes within the Wokingham town Centre AQMA in 2019/2020. There are 8 diffusion tube sites within the area, including a triplicate and a Continuous Monitor.

3.3.10. The tube (WOK 838) located on Shute End was the only area that was exceeded the legal limit.

Figure 3-3 - Map of Wokingham town centre AQMA including diffusion tube locations and annual mean NO2 concentrations in 2019

Diffusion Tube	WOK 872	WOK 873	WOK 857	WOK 874	WOK 844	WOK 867	WOK 52	WOK 868	WOK 879	WOK 880	WOK 881	WOK 838	CM2
NO_2 Annual Mean Concentration (µg/m³)	32.4	24.7	39.9	28.9	38.6	23.7	30.3	27.7	36.3	36.5	37.3	**41.8**	33.0
									Triplicate Average 36.8				



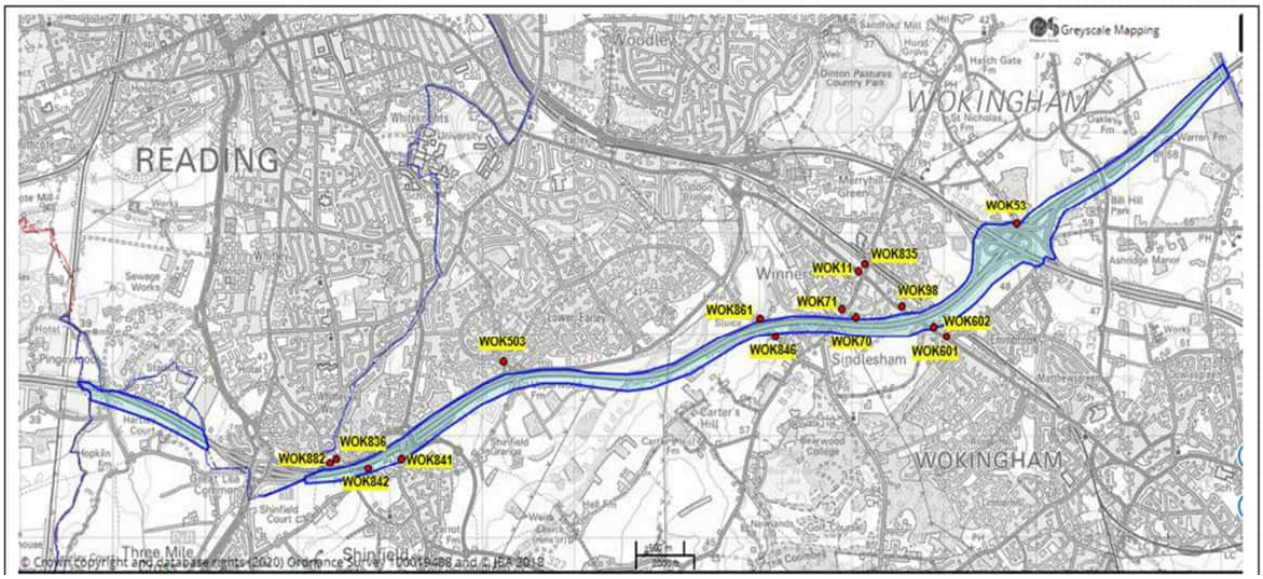
Source: Wokingham Borough Council LAQM Annual Status Report 2020

3.3.11. Figure 3-4 below shows below shows the location of NO_2 diffusion tubes within the M4 AQMA in 2019/2020. No tubes within the area exceeded the legal limit.

3.3.12. Significant changes to the road layout around the M4 AQMA have taken place in the last 3 years with the opening of the new motorway bridge and the Shinfield Eastern Relief Road. This has seen the movement of traffic on the A327 away from this monitoring location further east to the other side of Shinfield. Roadworks within the borough on the M4 with a speed limit of 50/60mph have been in place during much of 2018, 2019 & 2020 which may also account for the reduction in levels.

Figure 3-4 - M4 AQMA, diffusion tube locations and annual mean NO2 concentrations

Diffusion Tube	WOK 882	WOK 836	WOK 842	WOK 841	WOK 503	WOK 861	WOK 846	WOK 71	WOK 70	WOK 11	WOK 835	WOK 98	WOK 602	WOK 601	WOK 53
NO_2 Annual Mean Concentration (µg/m³)	37.3	27.0	20.0	33.3	27.5	23.2	21.6	31.9	25.5	32.0	26.6	25.4	21.2	20.0	21.1

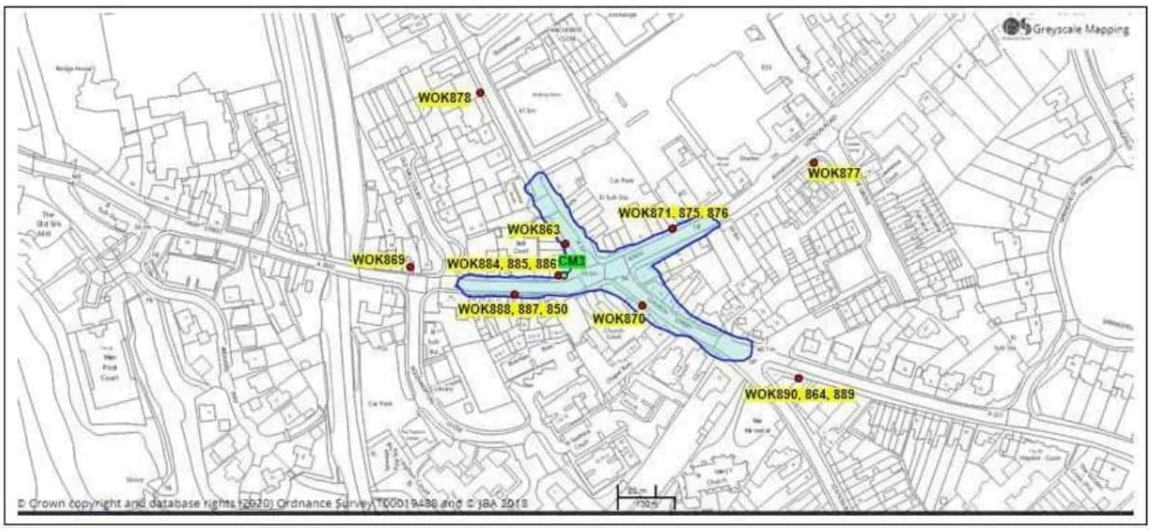


Source: Wokingham Borough Council LAQM Annual Status Report 2020

3.3.13. Figure 3-5 shows the location of NO_2 diffusion tubes within the Twyford Crossroads AQMA. The tubes (WOK 888, 887 and 850) located on the south side of the High Street exceeded the legal limit in 2019.

Figure 3-5 - Twyford AQMA, diffusion tube locations and annual mean NO2 concentrations

Diffusion Tube	WOK 878	WOK 863	WOK 877	WOK 890	WOK 889	WOK 864	WOK 869	WOK 884	WOK 885	WOK 886	CM3	WOK 871	WOK 875	WOK 876	WOK 888	WOK 887	WOK 850	WOK 870
NO_2 Annual Mean Concentration ($\mu g/m^3$)	25.7	30.7	22.9	36.2	37.9	36.9	27.1	30.5	30.8	30.1	29.9	27.0	27.7	27.3	43.3	43.8	41.2	29.0
				Triplicated Average 37.0				*Triplicated Average 30.5*				*Triplicated Average 27.3*			*Triplicated Average 42.8*			



Source: Wokingham Borough Council LAQM Annual Status Report 2020

3.3.14. Within the Air Quality Action Plan, five key priority actions have been identified which are reducing passenger cars; reducing HGVs; reducing buses or increasing hybrid or electric buses; encouraging sustainable transport; and reduction in total vehicles. It also includes measures for Wokingham town Centre and Twyford Crossroads as well as more generic / borough wide measures.

4 Environment

4.1 Townscape and Heritage

4.1.1. Wokingham Borough's historic environment is one of the county's greatest assets. Features range from prehistoric monuments to structures of the industrial revolution, from historic townscapes to fields, gardens and homes.

4.1.2. The quality of streets and highway space in all towns and villages, not just those areas classed as historic, is important to quality of life, and makes Wokingham Borough an attractive place for people to live in, work in, or visit.

4.1.3. Historic England's (HE) National Heritage List for England (NHLE) draws together all listed buildings, registered parks and gardens, battlefields, scheduled monuments, World Heritage Sites and conservation areas. Table 4-1 shows the NHLE data for Wokingham Borough. Listed buildings and registered parks and gardens come in three categories of 'significance':

- Grade I for buildings of the highest significance.
- Grade II*; and
- Grade II.

Table 4-1 - Designated historic buildings and areas in Wokingham Borough

Type	Category	Number	Number at risk
Listed buildings	Grade I	9	0
Listed buildings	Grade II*	40	0
Listed buildings	Grade II	601	0
Listed buildings	**Total**	**650**	**0**
Registered Parks and Gardens	Grade I	0	0
Registered Parks and Gardens	Grade II*	3	1
Registered Parks and Gardens	Grade II	2	0
Registered Parks and Gardens	**Total**	**5**	**1**
Other	Battlefields	0	0
Other	Scheduled monuments	18	4
Other	World Heritage Sites	0	0
Other	Conservation areas	16	0

Source: Historic England, NHLE, 2020 (correct as of March 2020)

4.1.4. Traffic and transport have a significant impact upon the built environment. Transport infrastructure is a key determinant of the form of our towns and villages and roads are often the only modern man-made features in large areas of open countryside. The choice of street materials, street furniture, signs, lighting and trees all affect the quality of streetscapes and local amenity.

4.1.5. Levels of traffic and parked cars also have a significant impact. Vibration, air pollution and accidental collisions from traffic can damage buildings and street furniture, whilst visual intrusion and noise can diminish people's enjoyment of historic sites, towns and villages.

4.1.6. The potential significant effects of transport on this historic environment include:

- Damage to historic roadside buildings by traffic vibration, in particular, HGVs.
- Damage to historic buildings (particularly stone) from the effects of air pollution and collisions.
- Loss of historic bridges due to road widening.
- The ambience of conservation areas can be adversely affected by the presence of traffic and inappropriately placed street furniture; and
- Cultural monuments may be severed from their setting due to the intrusion of vehicles, including those of people visiting the monument.

4.2 Natural Environment

4.2.1. The extent of Wokingham Borough's biodiversity is reflected in the number of statutory designations for nature conservation, as shown in Table 4-2.

Table 4-2 - Nature conservation designations in Wokingham Borough

Site type	Number of sites in Wokingham Borough	Total area covered within Wokingham Borough (ha)
Special Area of Conservation (SAC)	0	0
Sites of Special Scientific Interest (SSSI)	5	34.15
Regionally Important Geological and Geomorphological Sites (RIGS)	2	43.44
Internationally protected wetland sites (Ramsar)	0	0
Registered Common	11	6.97
National Nature Reserves (NNR)	11	95.90

Source: Department for Environment, Food and Rural Affairs, 2020 and Berkshire Geoconservation Group

4.2.2. The interaction of biodiversity and the road network is significant and potential areas of concern include:

- Wildlife casualties through collisions with motor vehicles.
- Land take and associated habitat loss of fragmentation through new transport infrastructure schemes or increased traffic.
- Increased disturbance to wildlife populations.
- Changes in air quality, water quality, noise, vibration, light emissions, dust deposition as a result of construction and operation; and
- Creation of barriers to movement.

4.3 Flood Risk

4.3.1. There are a number of different types of flooding that does or could affect Wokingham:

- Surface water flooding mainly affects Riseley, Swallowfield and Shinfield although historically it has also affected Earley and Woodley.
- Groundwater flooding primarily affects Sonning, Woodley, Earley and Winnersh.
- Main river and ordinary watercourse flooding could affect parts of Winnersh, Woodley, Earley, Charvil, Twyford and Swallowfield located within the River Loddon flood zone. Historically, it has also affected the River Thames at Sonning Bridge and Emm Brook around Wokingham town.
- Sewer flooding could affect key town centres.
- Highway flooding affects the urban areas including Wokingham town, Earley and Woodley and historically it has affected Swallowfield, Hurst and Arborfield along with parts of the A329 and A327; and
- Reservoir flooding could affect the areas surrounding the seven major reservoirs across the Borough.

4.3.2. Wokingham Borough experienced four significant flooding events between 2000 and 2013. The 2013 event affected many of the same locations as the 2000 and 2007 events and also significantly impacted key infrastructure routes across the Borough, including many of the main routes between Reading and Wokingham when the River Loddon burst its banks.

4.3.3. Under the Flood and Water Management Act (2010) Wokingham Borough Council became a Lead Local Flood Authority, responsible for managing local flood risk from surface water, groundwater and ordinary watercourses in Wokingham.

4.3.4. One of the new duties placed on Lead Local Flood Authorities (LLFAs) to assist with the management of local flood risk is to ‘develop, maintain, apply and monitor’ a Local Flood Risk Management Strategy which the Borough adopted in April 2015. The objectives of this Strategy are:

- Continue to improve knowledge and understanding of current and future local sources of flood risk within Wokingham.
- Continue to work collaboratively and develop effective partnerships with other Flood Risk Management Authorities and local communities to deliver a sustainable, cost-effective

approach to flood risk management that reduces flood risk and provides wider environmental and social-economic benefits where possible.

- Ensure that land use planning and application decisions take full account of flood risk, avoiding development in inappropriate locations, preventing an increase in flood risk and minimising existing flood risk wherever possible.
- Maintain and, where necessary, improve local flood risk management infrastructure and work with riparian landowners to ensure privately owned flood defence assets, features and Ordinary watercourses, are well maintained to reduce risk.
- Ensure that emergency plans and responses to flood incidents are effective and that communities are prepared and resilient to local flood risk; and
- Identify national, regional and local funding mechanisms to deliver flood risk management solutions and schemes.

4.4 Waterways

4.4.1. There only navigable waterway in Wokingham Borough is the River Thames which runs from Lechlade near Swindon through Reading and London into the sea to the south of Essex. It forms the northern boundary of the Borough from just to the east of Reading to just south of Medmenham, which lies between Henley-on-Thames and Marlow.

4.4.2. To the east of the Borough, the River Thames provides links into the River Wey and the Basingstoke Canal, and to the west of the Borough, it provides links into the Kennet and Avon and Oxford canals, as shown on Figure 4-1.

Figure 4-1 - Map of the River Thames

Source: https://www.waterways.org.uk/pdf/wwwaterwaysmap

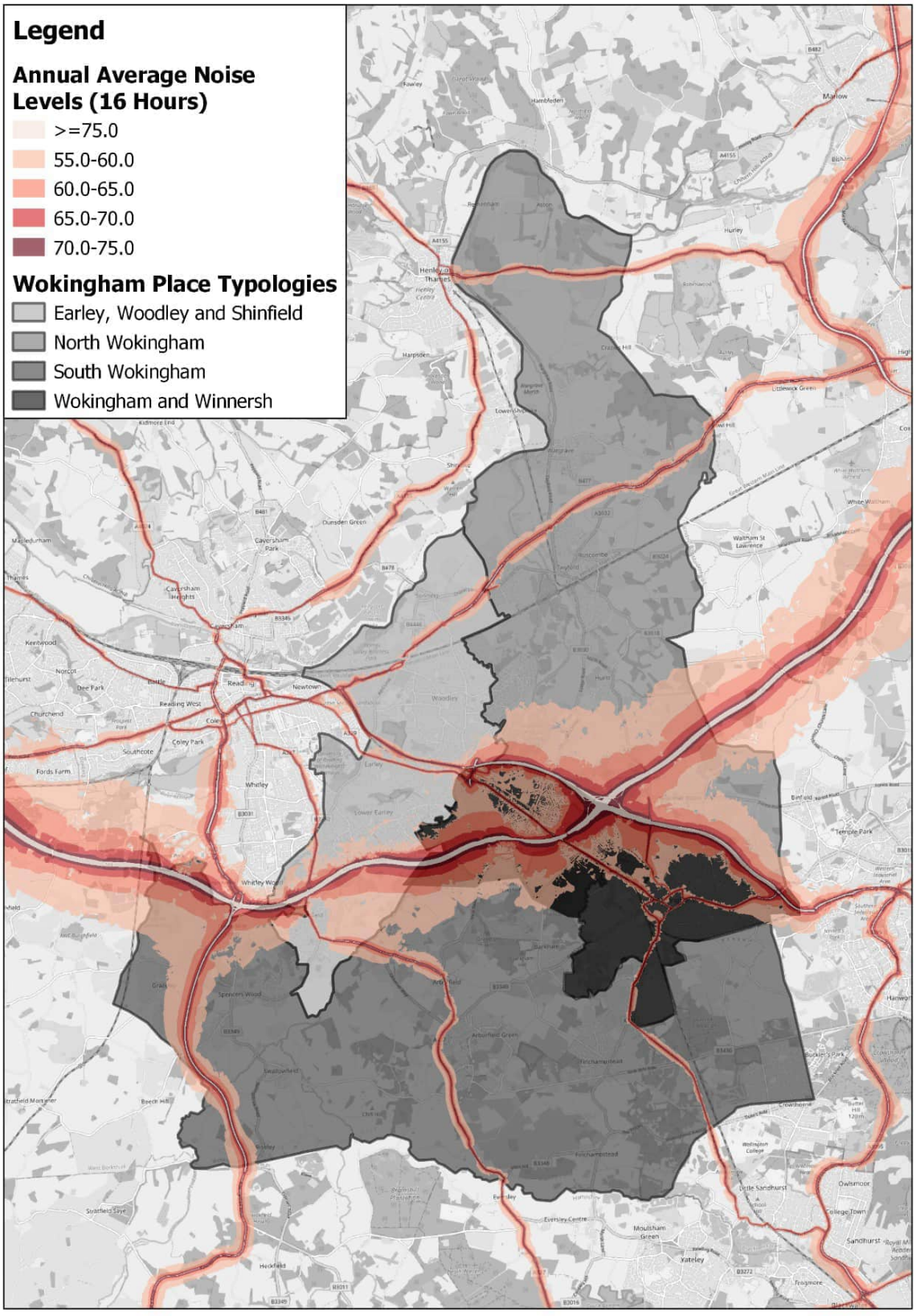
4.4.3. In addition to their primary function, the towpaths and paths adjacent to the River Thames offer excellent opportunities for cycling and walking, with the 294km Thames Path forming part of the National Trail network. From Reading to Sonning cyclists and walkers share the Thames Path, but beyond Sonning the path narrows and is for walkers only.

4.5 Noise Levels

4.5.1. Noise pollution from transportation, particularly near major highways, has significant negative impacts on both individuals and the environment. The effects can include stress and sleep disturbances, impaired cognitive functions, disruption of ecosystems and wildlife behaviour, decreased property values and social isolation. The cumulative effect of noise pollution exacerbates other forms of pollution, degrading the overall environment.

4.5.2. Figure 4-2 indicates the level of noise according to the Department for Environment, Food and Rural Affairs. The figure shows the impact of the strategic highway links of the M4 and A329 (M) and that those residents in vicinity of these links are most exposed to significant levels of noise from transport sources.

Figure 4-2 - Annual average noise levels for the 16-hour period between 0700 – 2300



Source: Department for Environment, Food and Rural Affairs (2017)

5 Health and Wellbeing

5.1 Introduction

5.1.1. Transport plays a significant role in peoples' health. This can include enabling access to services, enabling physical activity and the impact of emissions and noise on health.

5.1.2. The 2016 Chartered Institute for Highways and Transportation discussion paper 'A Transport Journey to a Healthier Life'[3] highlighted how transport policy and procedure can contribute to the health and wellbeing agenda. It found that:

- The reintroduction of public health responsibilities into local government offers real opportunities for integrated working across council departments and to integrate practical and measurable health and wellbeing benefits with transport projects and investment.
- The health and wellbeing benefits of transport investment need to be widened to measure the full range of physical and mental health and wellbeing impacts, to better influence funding decisions,
- The local planning system does not take sufficient account of health and wellbeing in decision-making and would benefit from the inclusion of mandatory health impact assessments.
- The influence of transport choices on people's mental health and wellbeing is being overlooked by existing policy and practice. For example, mental health and wellbeing can be enhanced by improving air quality, reducing noise/traffic volumes and maintaining access to services enhances older people's wellbeing and quality of life; and
- The transport sector is failing to take account of the full health and wellbeing benefits of walking. In places where there is a focus on improving the walking environment, such as town centres, there is a lack of evaluation of the health and wellbeing benefits and consequences.

5.1.3. In 2019, the three Health and Wellbeing Boards for Wokingham, West Berkshire and Reading took a decision to develop a shared Berkshire West Health and Wellbeing Strategy 2021-2022. Working closely with local partners from health, social care, voluntary sector and residents to identify five priorities which include.

1) reducing the difference in health between different groups of people

2) supporting individual at high risk of poor health outcomes to live healthy lives

3) help families and children in early years

4) promote good mental health and wellbeing for all children and young people and

5) Promote good mental health and wellbeing for all adults

[3] http://www.ciht.org.uk/en/document-summary/index.cfm/docid/1DFB69FB-64B0-4221-8675F55F64DCA1E2

5.1.4. Wokingham's Wellbeing Board built on this strategy and the priorities publishing their own Strategy into Action adding a sixth priority of creating and promoting physically active communities.

5.2 Health Inequalities

5.2.1. Transport enables access to work, education, social networks and services that can improve people's opportunities and community cohesion. The relationship between transport and health is both complex and socio-economically patterned. For example, there is a clear social gradient in access to work and services, with greater freedom to travel, linked to increased car ownership, as income increases. Likewise, not having good access to transport increases inequalities.

5.2.2. This is further evidenced in the 2010 report 'Fair Society, Healthy Lives, The Marmot Review'[4], which provided a strategic review of health inequalities in England post-2010. The review found that there remains a social gradient in health, where the lower a person's social position, the worse their health is.

5.2.3. One of the six policy objectives identified in the Marmot Review to tackle the health inequalities that persist within England was the need to create and develop healthy and sustainable places and communities. Travel was recognised as a key element and the review highlighted the importance of a sustainable transport system, investment in transport, improving active travel across the social gradient and fully integrating the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality.

5.2.4. Whilst good transport connectivity can help contribute to reducing health inequalities, there are additional benefits from having and promoting physical activity such as reduced risk of a range of illnesses and improvements to mental health. Therefore, policies seeking to increase active travel should consider the impacts on health inequalities and work to target communities progressively across the social gradient.

5.2.5. According to the Public Health England (now known as Office for Health Improvement and Disparities (OHID)): Public Health Outcomes Framework, the 2018-2020 slope index of inequality in life expectancy at birth within English local authorities (based on local deprivation deciles within each area), Wokingham Borough has lower than average levels of health inequality In men the variation in life expectancy across the social gradient was 6.1 years and in women it's 4.5 years for 2018-2020. This compares with 9.7 years for men and 7.9 years for women at the national level for 2018-2020.

5.2.6. Similarly, the 2016-2018 slope index of inequality in life expectancy at 65 within Wokingham Borough is 3.6 years for men and 2.5 years for women. This compares with 5.2 years for men and 4.8 years for women at the national level.

[4] http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review/fair-society-healthy-lives-full-report-pdf.pdf

5.3 Obesity

5.3.1. Obesity is a significant and growing health problem in the UK. In Wokingham Borough, obesity accounts for a large and growing burden of disease.

5.3.2. Obesity is not spread equally throughout the population and inequalities do exist. Social, economic and environmental in which people live can shape their outcomes and affordable and/or accessible transport is an important factor in this.

5.3.3. England's obesity data indicates those at increased risk are people older age groups, those who are economically inactive or unemployed, people with physical or learning disabilities and people with severe mental illness (SMI). Consequently, people in older age groups and those living in the most deprived areas of Wokingham Borough are more likely to be obese than the other parts of the borough.

5.3.4. Two thirds (63%) of the adult population in England are overweight or obese and the prevalence is increasing year on year, having increased from 61% in 2015/16.

5.3.5. The number of adults overweight or obese in Wokingham is also a growing burden. 60.2% of adults were overweight/obese in 2020/21 compared to 50.7% in 2015/16.

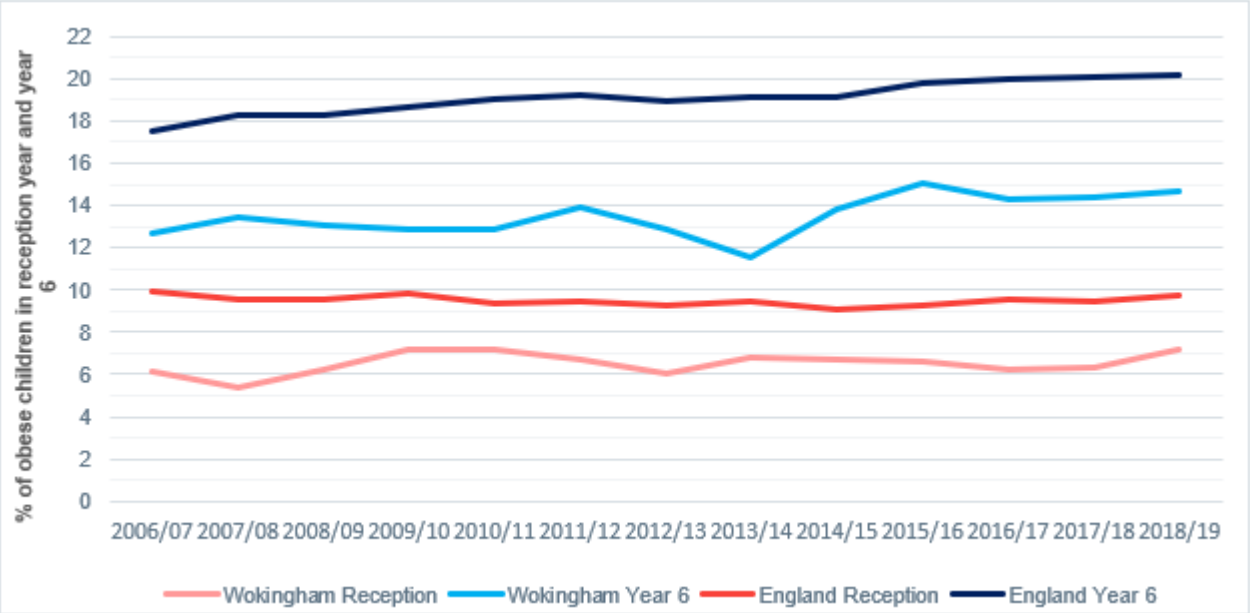
5.3.6. Figure 5-1 shows the number of hospital admissions for men and women with a primary obesity diagnosis in 2019/20 at the local, regional and national level. Wokingham Borough saw lower rates of hospital admissions than the South East of England. Female admissions are far higher than men. Amongst men, admission rates were almost half those observed in both the South East and England.

Figure 5-1 - Hospital admissions with a primary diagnosis of obesity 2019/20

Source: NHS Digital Statistics on Obesity, Physical Activity and Diet in England, 2021

5.3.7. Figure 5-2 shows the obesity levels in reception and year 6 children between 2006/07 and 2018/19 in Wokingham Borough and across England. Obesity levels amongst reception aged children in Wokingham Borough (7.2%) are much lower than in England (9.7%) in 2018/19. Obesity in year 6 children is notably higher than reception aged children, Despite Wokingham being below the national level, obesity in year 6 children is still approximately 50% more common than in reception aged children.

Figure 5-2 - Trends in childhood obesity in Wokingham Borough and England



Source: NHS National Child Measurement Programme

5.4 Physical Activity

5.4.1. The UK Chief Medical Officers' Physical Activity Guidelines, published in 2019, recommend that adults should aim to be physically active every day. Adults should be accumulating at least 150 minutes of moderate activity (such as brisk walking or cycling) or 75 minutes of vigorous activity (such as running) across the week.

5.4.2. The Guidelines state that there is moderate to strong evidence that physical activity will reduce the risk in adults of all-cause mortality, coronary heart disease, eight types of cancer, stroke, type 2 diabetes, dementia, anxiety, depression, weight issues and sleep problems.

5.4.3. In 2017/18, the Public Health England: Physical Activity Tool showed that Wokingham Borough was one of the top 20 local authority districts in England for physical activity in adults, with 73.5% of its adults considered physically active. However, OHID's Physical Activity Tool showed that in 2020/21 the percentage of physical active adults had decreased to 68.4%. Wokingham is now similar to England which is 65.9% and the South East of

England which is 69.2%. Similarly, the percentage of physical inactive adults in Wokingham increased, it was 13.9% in 2018/19 and was 19.7% in 2020/21.

5.4.4. In 2019/2020, physical activity in children and young people in Wokingham was 43.9% which was similar to England (44.9%) and the South East of England average (47.5%). This had improved from 2018/2019 when it was 41.1% of children and young people and Wokingham was one of the bottom 20 local authority districts in England for physical activity in children and young people.

5.5 Transport and Health

5.5.1. The 2016 Chartered Institute for Highways and Transportation discussion paper 'A Transport Journey to a Healthier Life'[5] highlighted how transport policy and procedure can contribute to the health and wellbeing agenda. It found that:

- The reintroduction of public health responsibilities into local government offers real opportunities for integrated working across council departments and activities to integrate practical and measurable health and wellbeing benefits with transport projects and investment, but progress is being hampered by a lack of strategic integration nationally and joint working locally.
- The health and wellbeing benefits of transport investment need to be measured in terms of cost and non-monetary values to better influence funding decisions, and the traditional cost benefit analysis approach needs to be widened to measure the full range of health and wellbeing impacts, including mental health.
- The local planning system does not take sufficient account of health and wellbeing in decision-making and would benefit from the inclusion of mandatory health impact assessments.
- The influence of transport choices on people's mental health and wellbeing is being overlooked by existing policy and practice. For example, mental health and wellbeing can be enhanced by improving air quality, reducing noise and traffic volume and maintaining access to services enhances older people's wellbeing and quality of life; and
- The transport sector is failing to take account of the full health and wellbeing benefits of walking. In places where there is a focus on improving the walking environment, such as town centres, there is a lack of evaluation of the health and wellbeing benefits and consequences, often due to time and financial constraints.

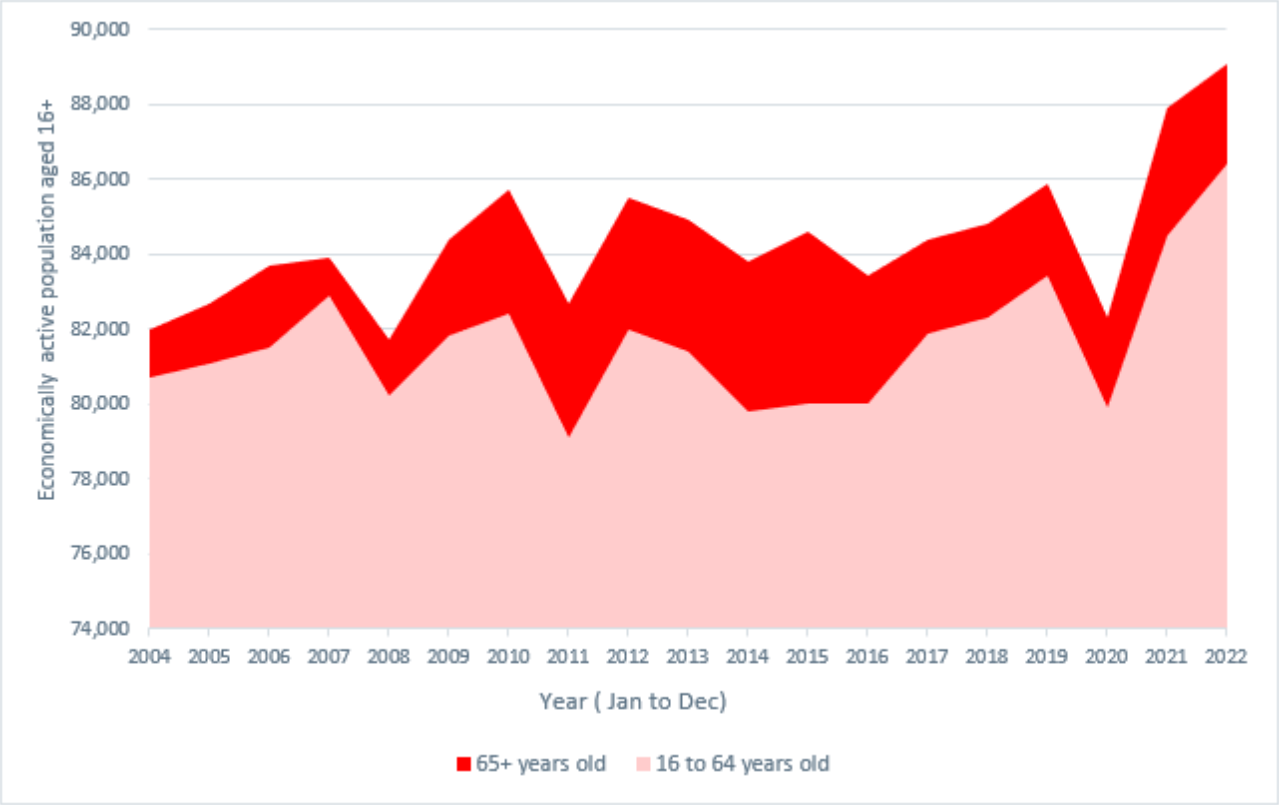
[5] http://www.ciht.org.uk/en/document-summary/index.cfm/docid/1DFB69FB-64B0-4221-8675F55F64DCA1E2

6 Economy and Employment

6.1 Economic Activity

6.1.1. The number of economically active people aged 16 years and older in Wokingham Borough is shown in Figure 6-1.

Figure 6-1 - Economically active people aged 16+ in Wokingham Borough since 2004



Source: 2022 ONS Annual Population Survey, Crown Copyright 2019

6.1.2. Figure 6-1 shows that the number of economically active people 16 years and older in Wokingham Borough has increased by 7,100 people or 8.7% between 2004 and 2022, although this number has fluctuated annually. This compares with a much bigger increase of 12.4% and 13.8% over the same period in the South East and England respectively.

6.1.3. Since 2015, the number of economically active people aged 16 to 64 years old has exhibited an upward trend in Wokingham Borough, increasing by 64,00 people or 8%. This compares with the South East and England, which have exhibited rises of only 2.4% and 2.6% respectively.

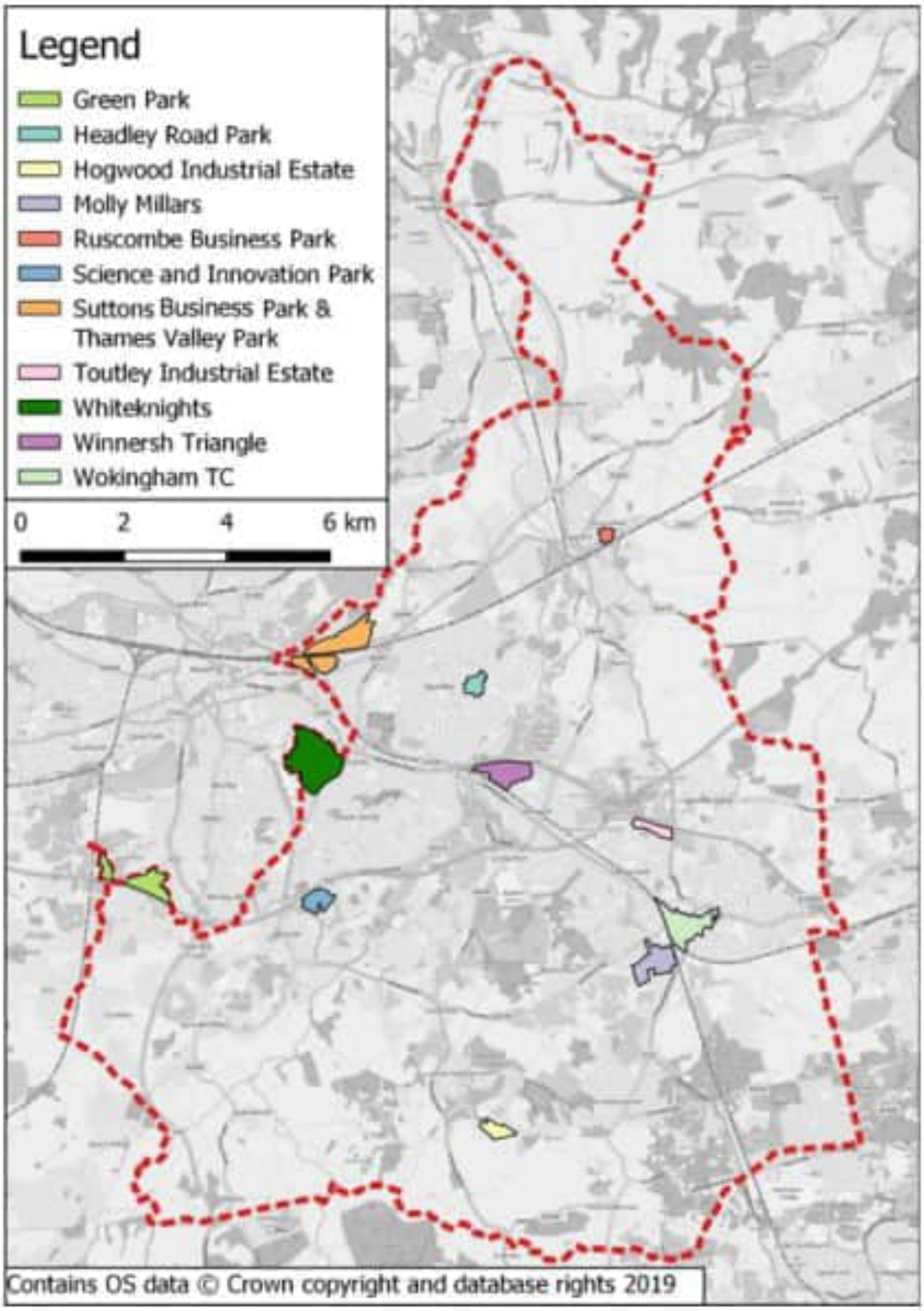
6.1.4. Conversely, since 2015, the percentage of economically active people aged 65 years and older has exhibited an upward trend in Wokingham Borough, increasing by 4,500 people or 5.3%. This compares with the South East, which saw a smaller rise of 2.9% and England, which saw an increase of 3.0%.

6.1.5. There were 89,100 economically active people in Wokingham Borough in 2022, which was the equivalent of 84.8% of the population aged 16 to 64 years old.

6.2 Employment

6.2.1. As shown below in Figure 6-2, there at 11 key employment areas within the Borough. These include areas in and around Wokingham town, Winnersh and towards the Reading facing towns. There are also some employment centres in the rural areas in the north and south of the Borough.

Figure 6-2 - Main employment Areas in Wokingham Borough



Source: OS, Wokingham Borough Council, 2018

6.2.2. As shown in Table 6-1, 80.7% of Wokingham Borough residents aged 16-64 were in employment in 2018, which compares favourably with both the South East and Great Britain due to both higher economic activity rates and lower levels of unemployment. The percentage of people aged 16-64 in employment who are self-employed in Wokingham Borough is similar to the percentage in Great Britain but lower than the percentage in the South East.

Table 6-1 - Percentage of people aged 16-64 in employment in 2018

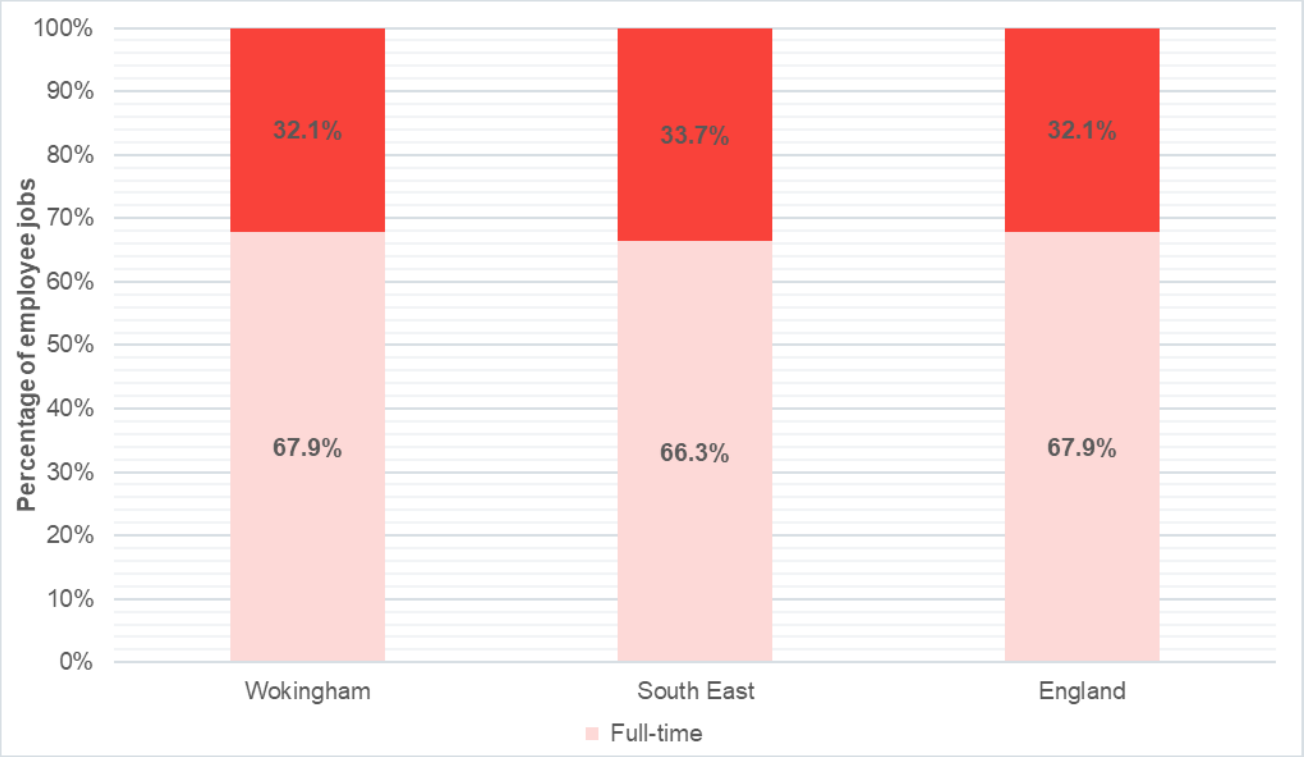
Employment	Wokingham	South East	England
In employment	80.7%	78.0%	75.4%
Employees	69.6%	65.9%	64.2%
Self-employed	10.7%	11.8%	10.9%

Source: 2018 (to December) ONS Annual Population Survey, Crown Copyright 2019

6.3 Types of Employment

6.3.1. Figure 6-3 illustrates the breakdown of full-time and part-time employees in Wokingham Borough, the South West and in Great Britain.

Figure 6-3 - Breakdown of employee jobs by full/part-time, 2018



Source: 2018 ONS BRES, Crown Copyright 2019

6.3.2. Figure 6-3 shows that, In Wokingham Borough, the penetration of part-time jobs matches levels observed across England at 32.1% of all employee jobs. This is slightly lower than the 33.7% level observed in the South East.

6.3.3. Prevalence of part-time work can be an indicator of under-employment and so these results highlight the robustness of the local economy in the Borough.

6.4 Skills and Occupations

6.4.1. According to the ONS annual population survey, the Wokingham Borough resident population of working age (16-64) people is highly qualified, with 53.7% having qualifications equivalent to at least National Vocational Qualification Level 4 in 2018, compared to 42.2% in the South East and only 39.0% across England.

6.4.2. In contrast, the proportion of the Wokingham Borough resident population of working age (16-64) people with no qualifications is very low at 3.8% in 2018, compared to 5.6% in the South East and 7.6% across England.

6.4.3. Table 6-2 presents the 2018 breakdown of resident workforce by occupational classification for Wokingham Borough, the South East and England. It shows that a higher percentage of Wokingham Borough residents are employed in Standard Occupational Classification (SOC) major group 1-3 occupations compared with the regional and national averages. In particular, 28.5% of Borough residents are employed in professional occupations, compared with just 22.4% regionally and 20.8% nationally.

6.4.4. In all other occupational classifications, Wokingham Borough has a lower percentage of residents employed when compared to regional and national levels, reflecting again the highly skilled nature of the local workforce.

Table 6-2 - 2018 Breakdown of the resident workforce by occupational classification

Occupation	Wokingham	South East	England
Managers, directors and senior officials	14.3%	12.2%	11.1%
Professional occupations	28.5%	22.4%	20.8%
Associate professional & technical occupations	18.3%	16.2%	14.9%
SOC 2010 major group 1-3	**61.3%**	**50.9%**	**46.9%**
Administrative and secretarial occupations	9.6%	10.3%	10.1%
Skilled trades occupations	8.6%	9.5%	9.9%
SOC 2010 major group 4-5	**18.2%**	**19.9%**	**20.0%**
Caring, leisure and other service occupations	6.8%	8.6%	8.9%
Sales and customer service occupations	5.2%	7.3%	7.4%
SOC 2010 major group 6-7	**12.1%**	**16.0%**	**16.4%**
Process, plant and machine operatives	2.8%	4.4%	6.3%

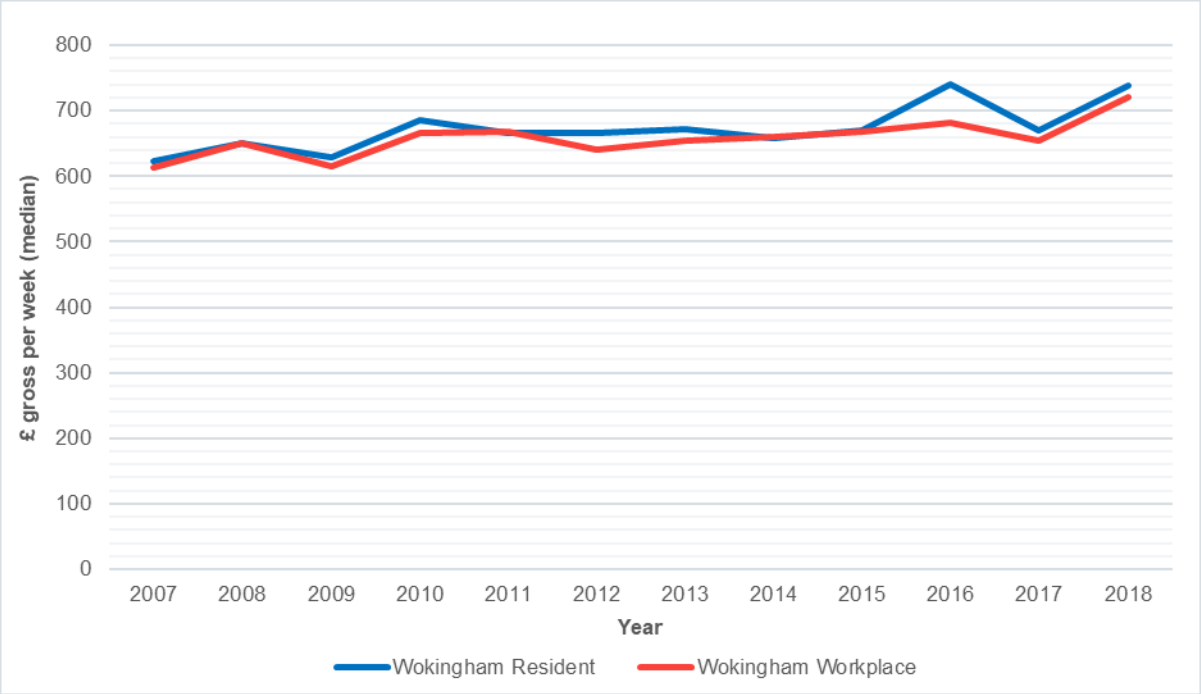
Occupation	Wokingham	South East	England
Elementary occupations	5.7%	8.7%	10.3%
SOC 2010 major group 8-9	**8.5%**	**13.2%**	**16.7%**

Source: 2018 ONS Annual Population Survey, Crown Copyright 2019

6.5 Earnings

6.5.1. Figure 6-4 shows the change in median workplace and resident earnings per week in Wokingham Borough between 2007 and 2018. It shows the slight upward trend in both workplace and resident earnings in Wokingham Borough. It also highlights that, in the majority of years, people residing in Wokingham Borough earned more, on average, than people working in Wokingham Borough.

Figure 6-4 - Wokingham Borough workplace and resident earnings, 2007-2018



Source: 2018 ONS Annual Survey of Hours and Earnings, Crown Copyright 2019

6.5.2. Table 6-3 details the gross median salaries earned by residents and workers in Wokingham Borough, its bordering local or unitary authorities, the South East, and England.

6.5.3. The table shows that Wokingham Borough resident earnings are higher than those earned in any of its bordering local or unitary authorities and are significantly higher than both the regional and national levels.

6.5.4. This highlights that the high skill level of residents in Wokingham Borough is translating into higher salaries for its residents.

6.5.5. Unlike all its bordering local or unitary authorities, workplace earnings in Wokingham Borough are broadly in line with resident earnings.

6.5.6. Also, like resident earnings, workplace earnings in the Borough are also higher than those of any of its bordering local or unitary authorities and are significantly higher than both the regional and national levels.

6.5.7. This highlights that, as well as providing highly paid jobs for its residents, Wokingham Borough is also attracting highly paid workers into the Borough.

Table 6-3 - 2018 gross median weekly resident and workplace earnings

Region or authority	2018 gross median weekly resident earnings (£)	2018 gross median weekly workplace earnings (£)
England	**574.80**	**574.80**
South East	**614.90**	**589.10**
Basingstoke and Deane	681.10	620.30
Bracknell Forest	608.90	682.80
Hart	669.20	622.20
Reading	613.00	657.00
South Oxfordshire	698.70	568.50
West Berkshire	633.30	683.00
Windsor and Maidenhead	718.70	651.90
Wokingham	737.60	720.00
Wycombe	651.00	622.90

Source: 2018 ONS Annual Survey of Hours and Earnings, Crown Copyright 2019

6.6 Business and Employment

6.6.1. There were 87,000 employee jobs in Wokingham Borough in 2018, which represents an increase of 17,000 compared with 2009 (24.3%). Table 6-4 shows that the number of employee jobs in both the South East and England have risen at a much slower rate of 9.7% and 12.5% respectively.

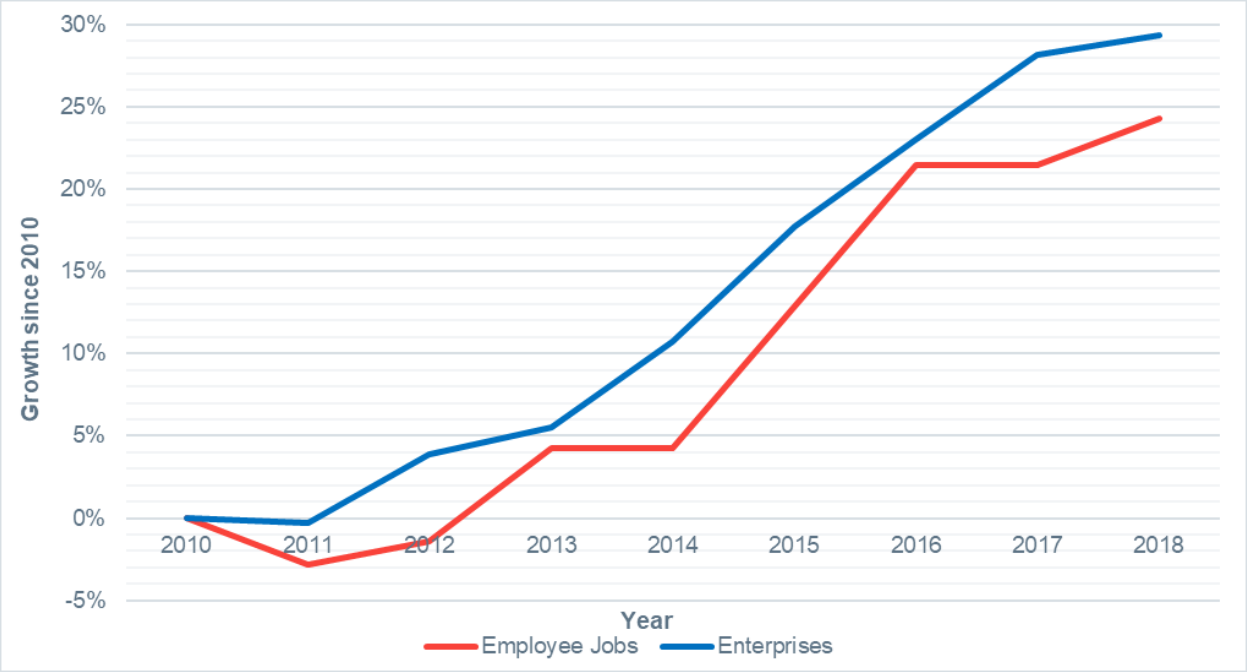
Table 6-4 - Number of employee jobs, 2010 to 2018

Year	Wokingham	South East	England
2010	70,000	3,783,000	23,085,000
2011	68,000	3,756,000	23,073,000
2012	69,000	3,780,000	23,256,000
2013	73,000	3,825,000	23,561,000
2014	73,000	3,908,000	24,286,000
2015	79,000	4,073,000	25,044,000
2016	85,000	4,147,000	25,477,000
2017	85,000	4,107,000	25,829,000
2018	87,000	4,151,000	25,976,000

Source: 2018 ONS Business Register and Employment Survey (BRES), Crown Copyright 2019

6.6.2. As shown in Figure 6-5, the growth in the number of enterprises since 2010 closely mirrors the growth in the number of jobs which these enterprises have created, suggesting that many of the new enterprises are relatively small in size, providing only a limited number of new employment opportunities.

Figure 6-5 - Growth in enterprises and employee jobs in Wokingham Borough since 2010



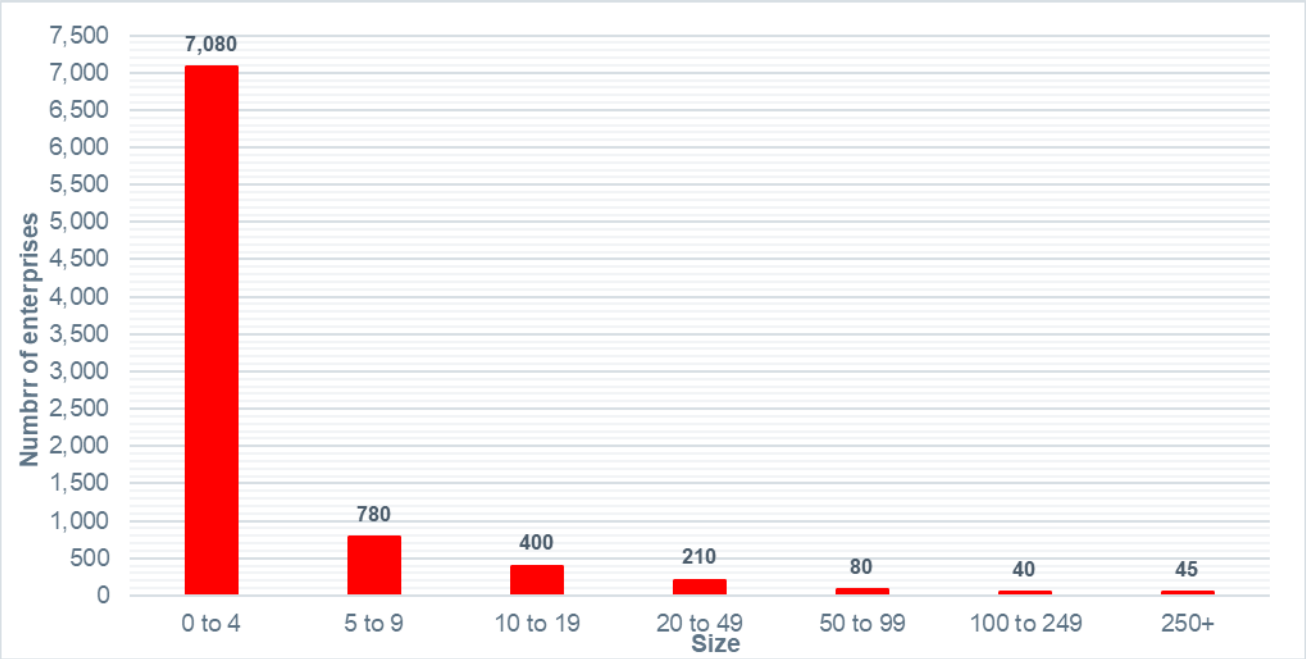
Source: 2018 ONS Inter-Departmental Business Register (IDBR), 2018 BRES, Crown Copyright 2019

6.7 Businesses by Size and Sector

6.7.1. Wokingham Borough is principally a small business economy, with more than nine out of ten of the 8,635 enterprises registered for either VAT or PAYE employing fewer than 10 in 2018. As shown in Figure 6-6, more than 80% of enterprises (7,080) have four or fewer employees. Only 45 employers in the Borough have a workforce of 250 or more, and as such are not classified as small and medium sized enterprises.

6.7.2. Nationally and regionally, small enterprises also dominate, with those with fewer than 10 employees accounting for just under 90% of the total in both the South East and England.

Figure 6-6 - Number of business enterprises by size, 2018



Source: 2018 ONS IDBR, Crown Copyright 2019

6.7.3. The highly skilled nature of Wokingham Borough's economy is reflected in the 2018 breakdown of enterprises by sector, which shows 43.3% of all enterprises registered for PAYE and/or VAT are classified as either in the professional, scientific and technical sector or the information and communication sector[6]. This compares with just 27.8% regionally in the South East and 23.9% nationally in England.

6.7.4. The two sectors with the most employees in Wokingham Borough in 2018 are also the professional, scientific and technical sector and the information and communication sector. The next two sectors with the most employees are the business administration and

[6] ONS, IDBR, UK Business: Activity, Size and Location, 2018

education sector, and together these four sectors account for half of all jobs in the Borough[7].

6.8 Business Start-Ups and Closures

6.8.1. Table 6-5 shows that 1,140 new businesses were established in Wokingham Borough in 2018, with only 905 businesses closing. The number of active businesses in the Borough has increased each year steadily from 8,230 in 2013 to 9,735 in 2018. As a percentage of the total number of active businesses, the start-up rate in Wokingham Borough is 11,7%, which matches the percentage in the South East but is lower than the national percentage of 13.1%.

6.8.2. Business closures rates are, however, lower in Wokingham Borough than regional and national averages, at 9.3% in 2018, compared with 10.0% regionally and 11.5% nationally, highlighting the lower business churn rate in the Borough.

Table 6-5 - Business demography, 2018

Demographic	Wokingham	South East	England
Business start-ups	1,140	52,795	340,045
Business closures	905	44,785	297,895
Active businesses	9,735	449,605	2,586,645
Start-ups as % of active businesses	11.7%	11.7%	13.1%
Closures as % of active businesses	9.3%	10.0%	11.5%

Source: 2018 ONS Business Demography, Crown Copyright 2019

6.9 Business Survival Rates

6.9.1. Table 6-6 shows that, of all businesses established in Wokingham Borough in 2013, over 94% were still operating a year later. However, by the end of year three, just under two-thirds were still trading, and after five years, just over half had ceased operations.

6.9.2. When compared to regional and national survival rates, businesses established in the Borough in 2013 showed stronger rates of survival at the one, four and five-year marks than their regional counterparts and in each of the five years compared to national rates.

[7] ONS, BRES, 2018

Table 6-6 - Survival rates of businesses founded in 2013

Classification	% of Businesses Surviving after 1 year	% of Businesses Surviving after 2 years	% of Businesses Surviving after 3 years	% of Businesses Surviving after 4 years	% of Businesses Surviving after 5 years
Wokingham	94.5%	76.3%	63.0%	53.9%	46.6%
South East	94.0%	76.9%	63.2%	53.4%	44.6%
England	93.6%	75.1%	60.9%	51.2%	42.5%

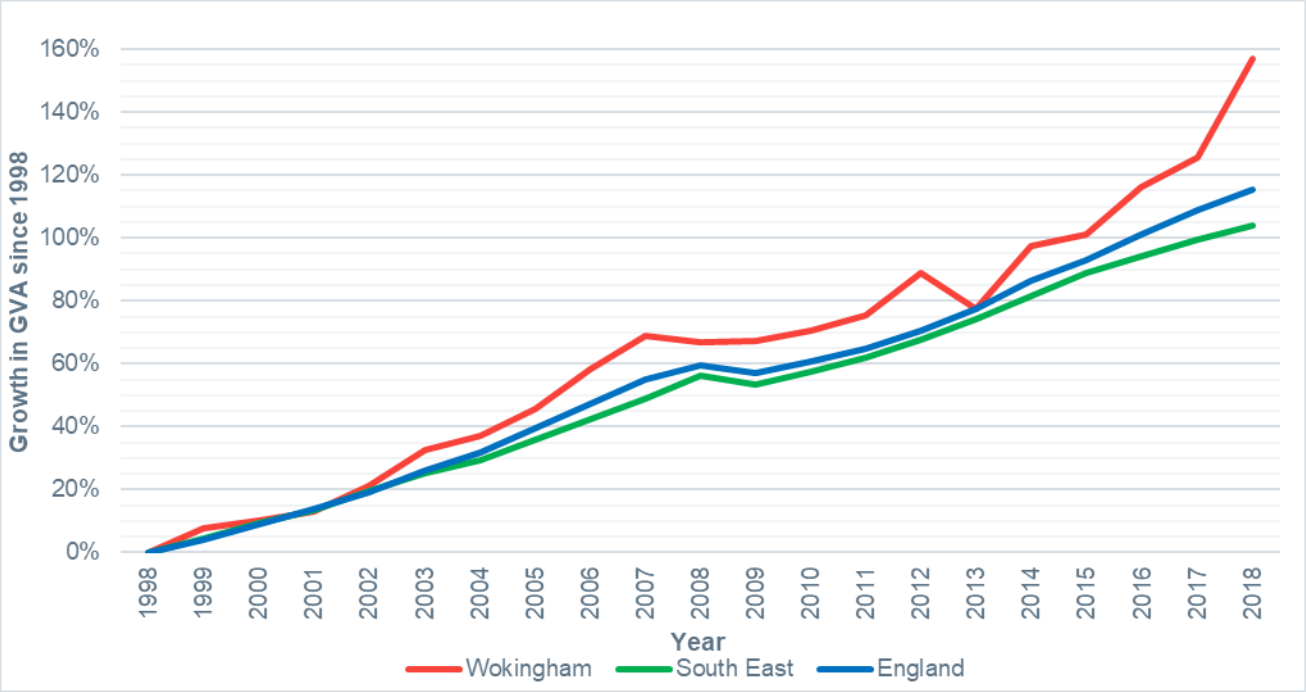
Source: 2018 ONS Business Demography, Crown Copyright 2019

6.10 Gross Value Added

6.10.1. Figure 6-7 shows the long-term growth trend in Gross Value Added (GVA) since 1998 in Wokingham Borough, the South East and England. It shows that regional and national growth in GVA since 1998 has been broadly similar but below that observed in Wokingham Borough.

6.10.2. In 2018 GVA in Wokingham Borough was £7,429 million, which represented a 14.0% increase from 2017 This increase was significantly higher than the 2.3% observed regionally and the 3.1% observed nationally.

Figure 6-7 - Growth in GVA since 1998



Source: 2018 ONS Regional GVA by Local Authority in the UK, Crown Copyright 2019

6.11 GVA by Sector

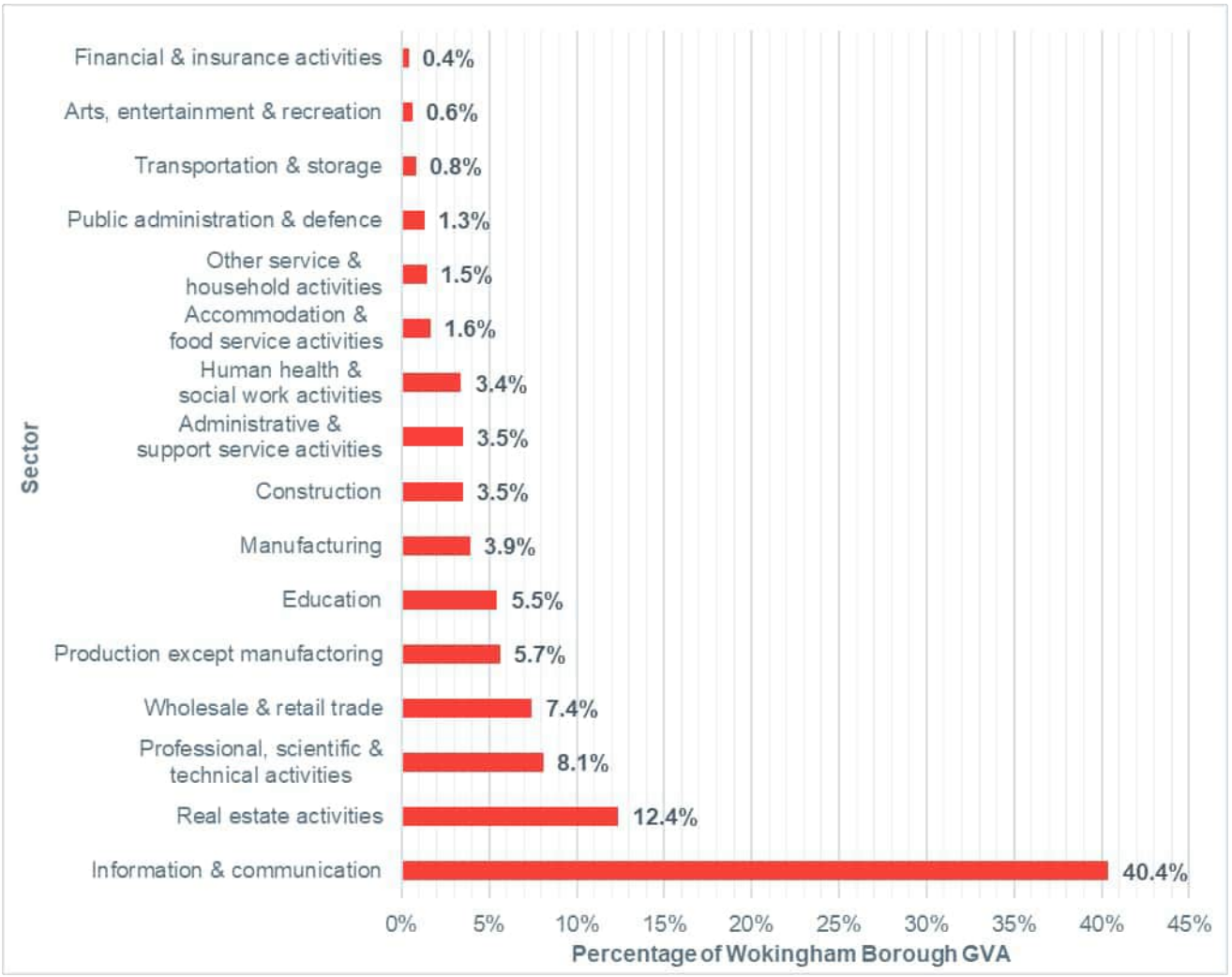
6.11.1. The relatively high GVA in Wokingham Borough is influenced by the types of industries which make up the Wokingham Borough economy. The two main sectors are information and communication and real estate which together account for more than 50% of all GVA generated in Wokingham Borough in 2018.

6.11.2. The fastest growing sectors in Wokingham Borough, in terms of GVA generation, in the 10 years to 2018 were:

- Information and communication (+173.1%)
- Production except manufacturing (+169.2%)
- Transportation and storage (+117.2%)
- Professional, scientific and technical activities (+113.1%)

6.11.3. In contrast, the finance and insurance activities have declined by 96.2% over this period.

Figure 6-8 - Breakdown of Wokingham Borough GVA by sector, 2018



Source: 2018 ONS, Crown Copyright 2019

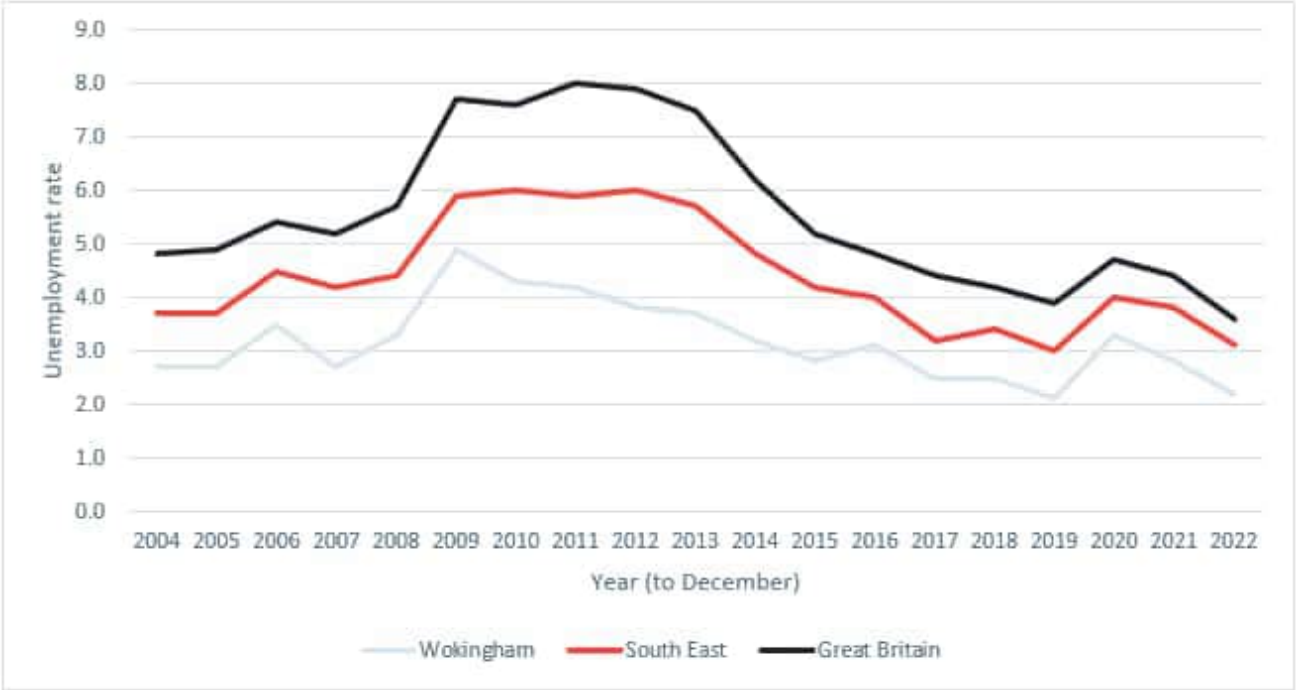
6.12 Economic Inactivity

6.12.1. According to the 2018 ONS Annual Population Survey, there were 17,400 (17.5%) Wokingham Borough residents aged 16 to 64 who were not part of the labour force in 2018. The two main reasons for economic inactivity were studying (29.9%) and looking after a family or home (24.7%). Of those people that were economically in 2018, only 2,400 people (13.8%) would like to work.

6.13 Unemployment

6.13.1. Estimated unemployment rates since 2004 are shown in Figure 6-9 for Wokingham Borough, the South East and England.

Figure 6-9 - Unemployment rates since 2004



Source: 2018 ONS Annual Population Survey, Crown Copyright 2019

6.13.2. Figure 6-9 shows that estimated unemployment rates in Wokingham Borough peaked in 2009 at 4.9% (4,100 people). However, since 2004, the estimated unemployment rate in Wokingham Borough has broadly followed the same trend as that observed in the South East and England, while remaining lower, except in 2009.

6.13.3. In 2020 and 2021, a significant increase in unemployment rates was observed, and this can be attributed to the impact of the COVID-19 pandemic.

6.13.4. In 2022, unemployment rates fell to their lowest level, with an estimated 2.2% of the Wokingham Borough population aged 16 years and older (1,900 people) unemployed[8].

[8] The International Labour Organisation defines the unemployment rate as the percentage of the population who are not in employment but who are seeking work and are available to work. They do not necessarily claim benefits.

7 Accessibility

7.1 Access to Services

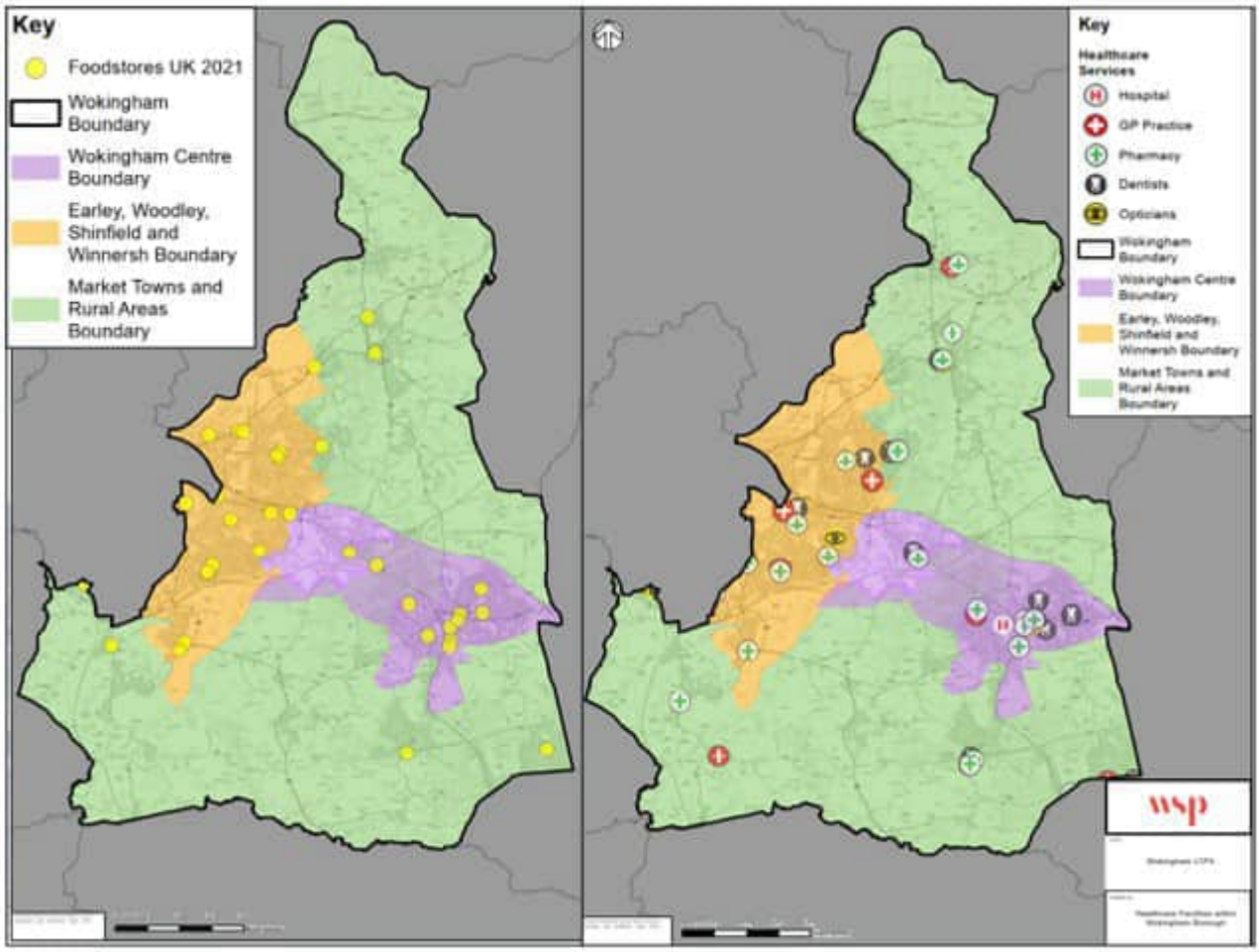
7.1.1. With a mix of urban and rural areas in the Borough, access to goods and services can vary significantly especially outside the main towns.

7.1.2. ‘Geographical Barriers to Services’ is a sub-domain of the ‘Barriers to Housing and Services’ domain, which is one of the domains that make up the Index of Multiple Deprivation (IMD). This sub-domain focuses on the travelling distances by road from selected facilities and services and shows that 20 of the 99 LSOAs in Wokingham Borough are within the top 10% most deprived nationally, a slight increase from 19 in 2015[9]. Just over a fifth of the Wokingham Borough population live in these 20 LSOAs and consequently do not have easy access to facilities, services or employment.

7.1.3. Figure 7-1 below shows the local facilities within Wokingham Borough. Food stores are shown on the left-hand side as yellow circles and healthcare facilities are show on the right-hand side with symbols to represent hospitals, GP Practices, Pharmacies, Dentists and Opticians.

[9] IMD 2015 and 2019, Ministry of Housing, Communities & Local Government

Figure 7-1 - Foodstores (Left) and Healthcare Facilities (Right) in Wokingham Borough



7.1.4. The figure above shows that there are many local facilities within Wokingham town and Winnersh, as shown by the purple boundary. Within this area there are a total of 11 food stores and 15 health care services. There is also relatively good coverage within the Earley, Woodley and Shinfield, as indicated by the orange boundary. Within this area there are a total of 19 food stores and 17 healthcare facilities.

7.1.5. In the more rural areas to the north and south, indicated by the green boundaries, there are a much lower number of services available. In the north of the borough, Twyford and Wargrave are the only two areas that hold local services. In the south of the borough, there are three food stores identified, these are south of Wokingham town in Finchampstead and Crowthorne as well as south of Shinfield in Three Mile Cross. Healthcare facilities are in Finchampstead, Three Miles Cross and Swallowfield. With a lower range of services, potentially accessibility problems could include.

- Access to employment not available on the required days or at the required times of day.
- Access to shopping, leisure and tourism opportunities in evenings and on Sundays.
- Access to health services when times of transport services do not coincide with appointments.

- Increased journey times for educational services

7.2 Access to Education

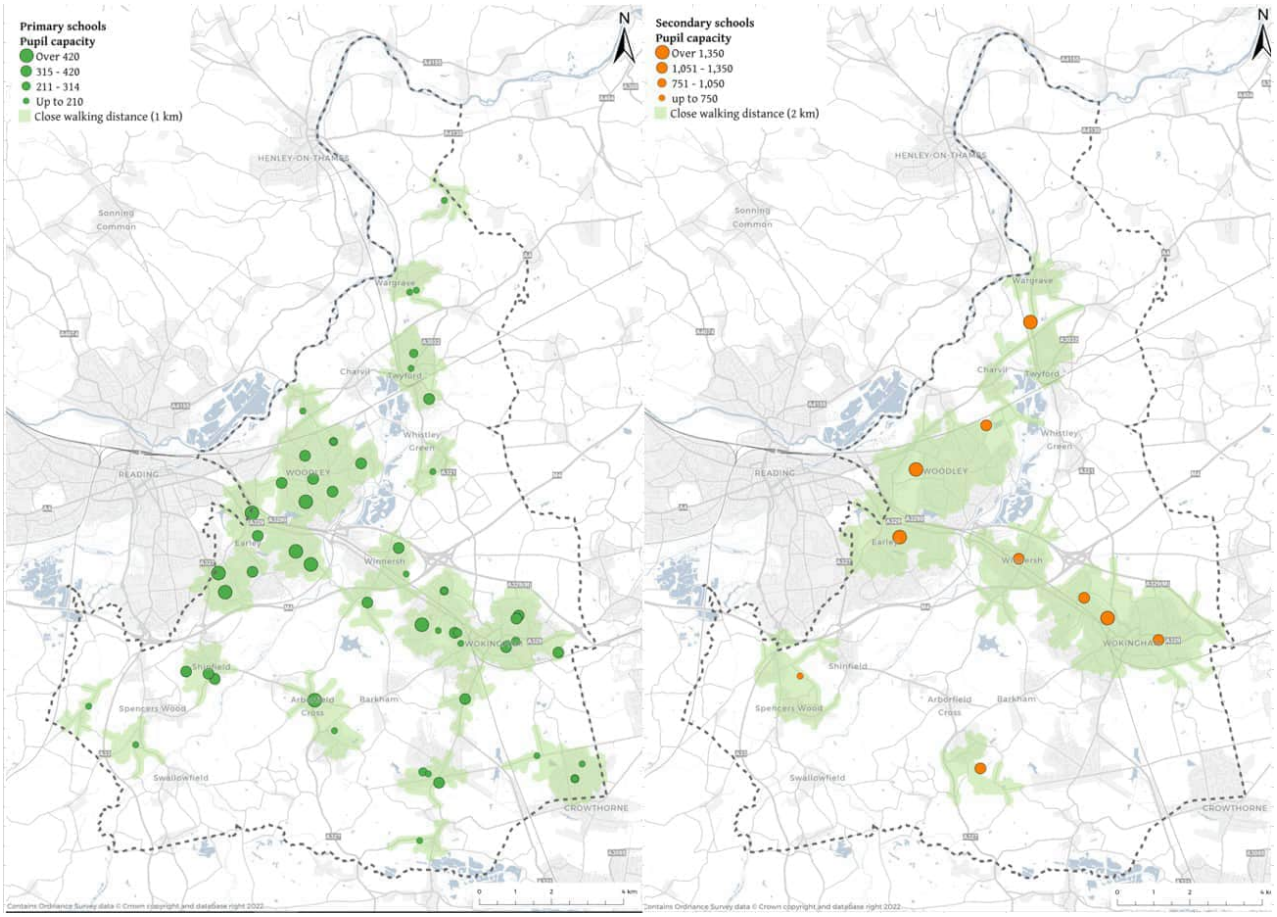
7.2.1. On the left, Figure 7-2 below shows the close walking (1-2km) (green area) and 2mile (pink area) catchment of primary schools within the borough.

7.2.2. The majority of Wokingham town, Winnersh, Woodley, Earley and Shinfield are within close catchment of primary schools. However, the majority of the rural areas in the north and south of the borough are in the wider catchment of primary schools but not within walking distance.

7.2.3. Similarly, the right-hand side of the figure shows the close walking (green area) (1mile) and 3mile (pink area) catchment of secondary schools within the borough. This shows there is a higher proportion of students within close walking distance of a secondary school. However, as seen with the primary schools, residents of rural areas in the north and south of the borough are less likely to live within an easy walkable distance to a school.

7.2.4. Parts of Remenham and Aston in the north of the borough and Riseley in the south of the borough fall out of the wider catchment for both primary and secondary schools.

Figure 7-2 - Residents distance to Primary Schools (left) and Secondary Schools (right)



7.3 Children and Young People

7.3.1. Poor accessibility for children and young people can limit their independence and opportunities.

7.3.2. In most cases, parents are responsible for making arrangements for their child to get to school and schools are encouraged to promote sustainable travel to parents and students. Schools are also encouraged to develop travel plans in consultation with parents and children. The My Journey Wokingham platform works with Modeshift STARS to provide a step-by-step platform for schools to create travel plans and many schools in Wokingham have them in place.

7.3.3. School buses can be a common method to increase sustainable travel. However, students that travel to school by dedicated school bus can be limited in taking part in extra-curricular activities or extra study before or after school.

7.3.4. The safety of walking routes and availability of public transport to and from school is also an important consideration.

7.3.5. The introduction of new schools in developments, and particularly the timing of their opening in relation to the number of students living locally exacerbates this problem, but it remains a conundrum for planners. Once developments are fully built out it is likely that this issue will settle down, however the initial intake has to pass through all the school years so this can be an issue for years.

7.3.6. After leaving school, there are colleges and other sites of further education that our young people need to access. There is no requirement for the borough council to provide transport for this, however, there needs to be safe accessible routes available for all of the borough's residents and the particular needs of this age group must be considered.

7.3.7. For young people of working age, the high costs of car ownership and limited public transport in the more rural areas of the Borough can limit their options for training and work. It also places a restriction on their independence, as they are often dependent upon lifts for any non-school travel, due to either the lack of alternatives or the safety and security concerns of their parents.

7.3.8. More limited evening and Sunday bus service provision across the Borough can also restrict young people's access to leisure activities and work opportunities outside the school/college day.

7.4 Access to a Car

7.4.1. Table 7-1 shows that car ownership is very high across Wokingham Borough with just 9.0% of households in the Borough without access to a car. This compares with just under a fifth (16.9%) of households in the South East and just over a quarter of households (23.5%) in England[10].

Table 7-1 - Household car ownership in Wokingham Borough

Classification	Households with access to car	Households without access to car	% of households without access to car
Wokingham	62922	6242	9%
South East	3165868	642098	16.9%
England	17919987	5516098	23.5%

Source: ONS (2021) Census, QS416EW, Crown Copyright 2019

7.4.2. The 2018 National Travel Survey data, detailed in Table 7-2, shows a strong link between income and car ownership in England. This is shown by 46% of households in the lowest income quintile not having a car, while 49% of the highest income quintile have two or more cars and vans.

Table 7-2 - 2018 household car ownership by household income quintile, in England

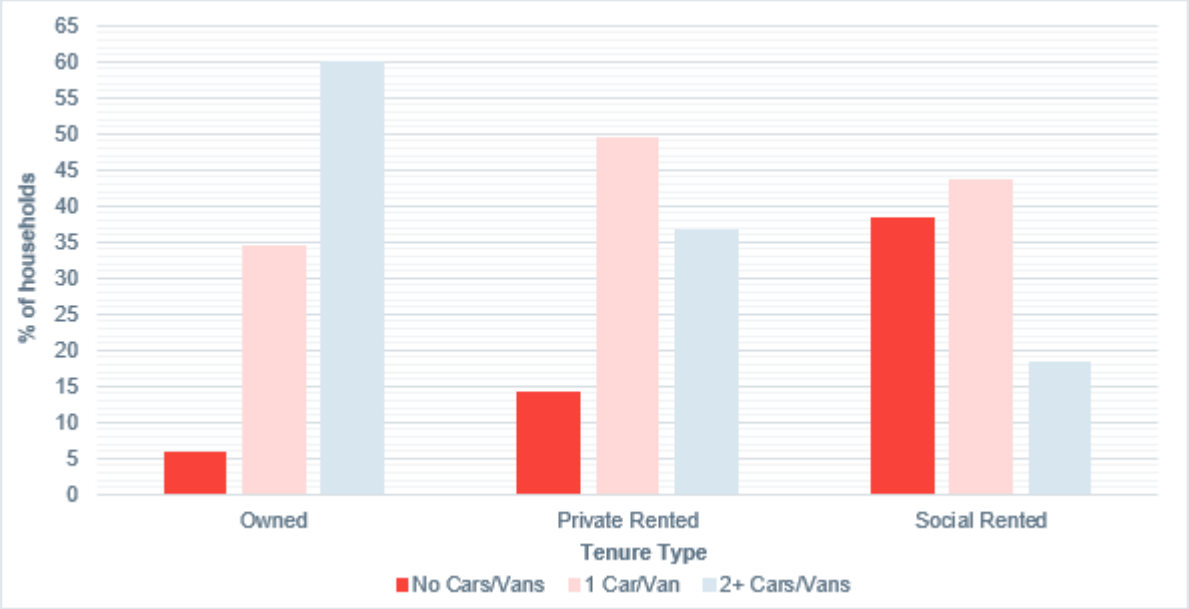
Income quintile	No car / van	One car / van	Two or more cars / vans
Lowest real income level	46%	38%	16%
Second level	28%	47%	25%
Third level	17%	46%	37%
Fourth level	15%	36%	49%
Highest real income level	13%	37%	49%
All households	24%	41%	35%

Source: DfT, National Travel Survey 2018 (NTS0703)

[10] ONS (2011) Census

7.4.3. Figure 7-3 demonstrates the relationship between household tenure type and car ownership in Wokingham Borough. This shows that 60% of privately owned households own two or more cars / vans. This compares to only 18% of socially rented households owning two or more cars and vans. The proportion of households with no cars also shows a clear correlation between the two variables, with just 6% of privately owned households not owning a car, compared to 14% and 38% for privately rented and socially rented households respectively.

Figure 7-3 - Car ownership by household tenure type in Wokingham Borough



Source: ONS (2011) Census, Crown Copyright 2019

8 Digital Accessibility

8.1 Introduction

8.1.1. Despite not always being front and centre of transport strategies, the growth in digital access is arguably the single largest change to transport over the last twenty years. Growth in smarter/hybrid working practices or the ability to use technology to allow faster and more efficient access to goods and services have fundamentally changed the need to travel.

8.1.2. 97% of the population have access to superfast broadband. There is however a distinction between digital connectivity and digital accessibility. Connectivity relates to the digital infrastructure (e.g., a fast and reliable connection to the internet), whereas accessibility relates to an individual's ability to use that infrastructure, such as whether users have the capability to use digital solutions to support their needs. Similar to how accessibility is considered in public transport, a similar approach should also be considered to digital accessibility.

8.2 Changing the need to Travel

8.2.1. An overview of changing travel patterns can be obtained from the National Travel Survey. This provides a guide of the total number of trips for a range of different journey purpose, and shown in the following Table, and shows a fall of 12% of trips per person between 2000 and 2019.

Trip Purpose	**2000**	**2010**	**2019**	**1995-2019 % Diff**
Commute and business	211	179	168	-21%
Personal Business and other escort	190	193	171	-13%
Shopping	228	197	181	-24%
Other leisure	134	149	177	28%
Visiting friends	188	150	130	-32%
Education	122	114	125	8%
Total	1073	982	952	-12%

8.2.2. Since 2000, there has been a particularly large decrease in visiting friends and shopping ships, representing 1 in 4 shopping trips and 1 in 3 trips to visit friends.

8.2.3. Other leisure trips are the only purpose where a clear increase is present and Education trips have increased slightly, alongside population growth.

8.3 Impact of Digital on Journey Purpose

8.3.1. Internet sales have been steadily increasing over the last 15 years, accounting for 20% of all sales by 2019. There was a significant uplift during the COVID-19 pandemic, although the early indications are that the percentage of internet sales is reverting to the pre-pandemic trend with 25% of sales made online in November 2021. Alongside this shift, there has also been an increase in LGVs, likely reflecting an increase in home delivery.

8.3.2. Online banking has also seen a significant surge, with the proportion of people undertaking online banking increasing from 32% in 2005 to 93% in 2022.

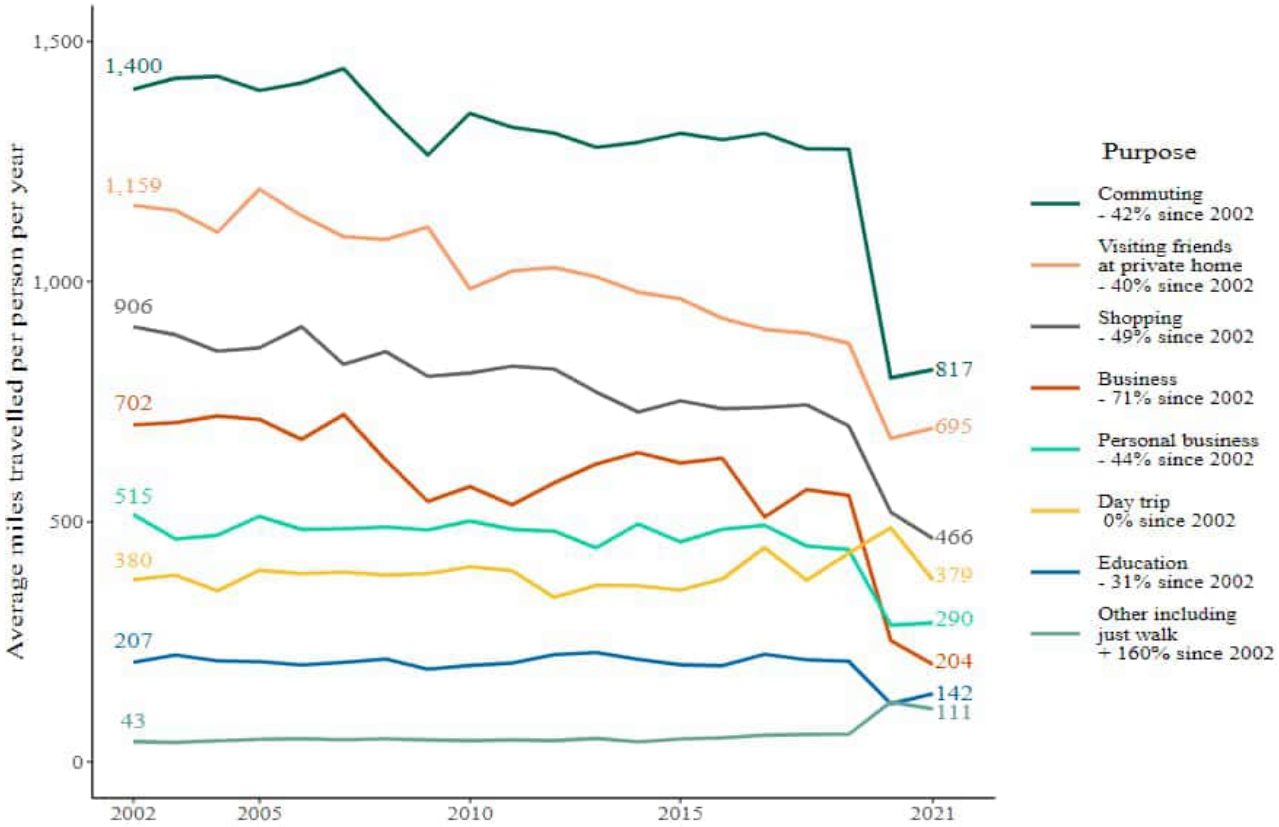
8.3.3. NHS Digital found that around 200,000 appointments and repeat prescriptions arranged through the NHS App between April and December 2021 which would previously have been made by people driving to their local surgery." The implementation of the NHS app saves over 20 thousand journeys a month across the UK, lowering congestion and saving residents time and money.

8.4 Impacts of Covid-19

8.4.1. The change in 2019 to 2020, reflecting the COVID-19 pandemic was even more stark, with commuting and business showing the largest change of any trip purpose.

8.4.2. To further the information above, Figure 8-1 below shows travel in all types of sectors are down a significant amount from the turn of the century.

Figure 8-1 - Change in Average Trips per Person for Different Journey Purposes Between 2002 and 2021

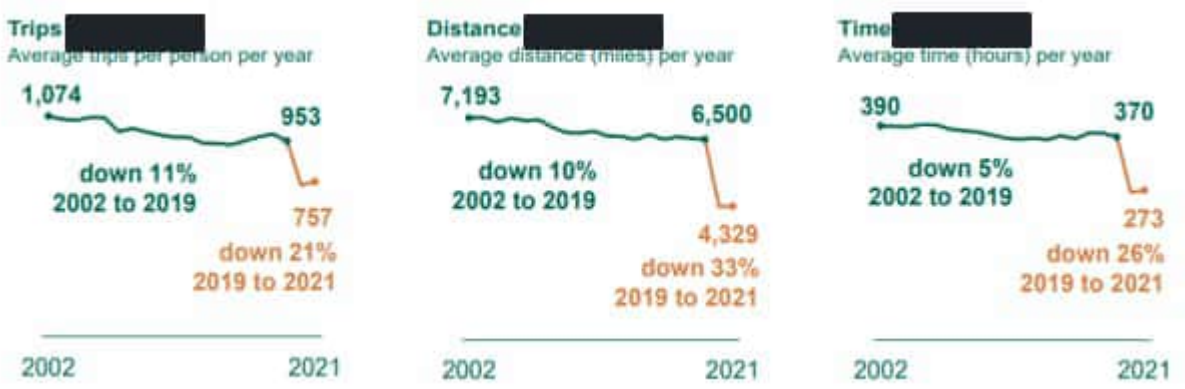


Source: National Travel Survey, 2022

8.4.3. Despite the main percentage decrease being a result of COVID-19, there was an existing downward trend occurring. Day trips and other walking trips are the only travel reasons that are up from 2002.

8.4.4. Figure 8-2 shows the change in trips, distance and time of trips between 2002 and 2021. Trips, distance travelled, and time are all down following COVID-19. These trends were all originally coming down, but the restrictions imposed forced a major drop in trips, distance travelled and time. The drop in distance was greater than the drop in number of trips – possibly inferring that longer distance trips are those that are most likely to be being made digitally.

Figure 8-2 - Change in Trips, Distance and Time of Trips Between 2002 and 2021



Source: National Travel Survey Fact Sheet, 2021

9 Travel Patterns

9.1 BoroughWide Commuting Patterns

9.1.1. Census Travel to Work data provides a valuable insight into how people travel to, from, and within an area. This information can be used to recognise how a particular place operates and the factors that influence travel choices.

9.1.2. The analysis in this section primarily uses 2011 Census Travel to Work data, with some comparisons of the Census 2021 data. Although COVID-19 has changed travel volumes and Census data is now over a decade old, the data provides a useful guide of the pattern of commuting trips.

9.1.3. The 2021 census data, although more recent is heavily impacted by the COVID-19 pandemic (which was ongoing at the time of the census) and as such atypical of travel patterns. It is recognised that the 2021 census does give a unique insight a time of extreme behavioural change towards travel, and the way in which people can live and some further analysis around those changes is included in this section.

9.1.4. Overall, the following trend in commuting was broadly observed across the borough.

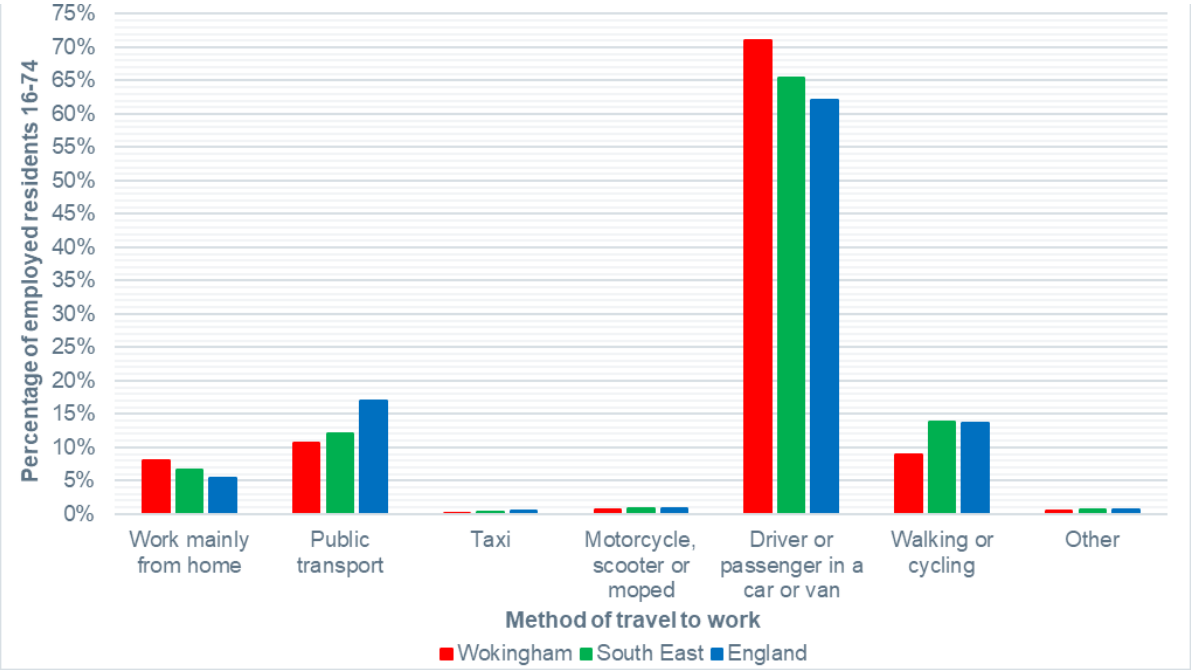
- **35% within the borough**. For trips originating in the same within the area, in towns the majority are made on foot or by cycle with car dominant in more rural areas.
- **35% to key destinations within 10 miles**, including Reading, Bracknell, Slough, Maidenhead and Windsor.
- **30% elsewhere**, comprising.
  - 10% work in London where public transport is the most common mode of travel.
  - 20% work elsewhere. Car is typically accounts for over 90% of these trips.

9.2 Travel to Work – Mode Choice

9.2.1. Reflecting the high levels of car ownership, Figure 9-1 shows that, in 2011, 71% of trips to work were made by a car or van (either as a driver or passenger). This is higher than the average of 65.5% regionally and 62.0% nationally.

9.2.2. Public transport usage levels by workers in the Borough was 10.6% in 2011, compared with 16.9% nationally. The percentage of workers walking or cycling to work in Wokingham Borough is also low at 8.9% in 2011, compared with almost 14% regionally and nationally.

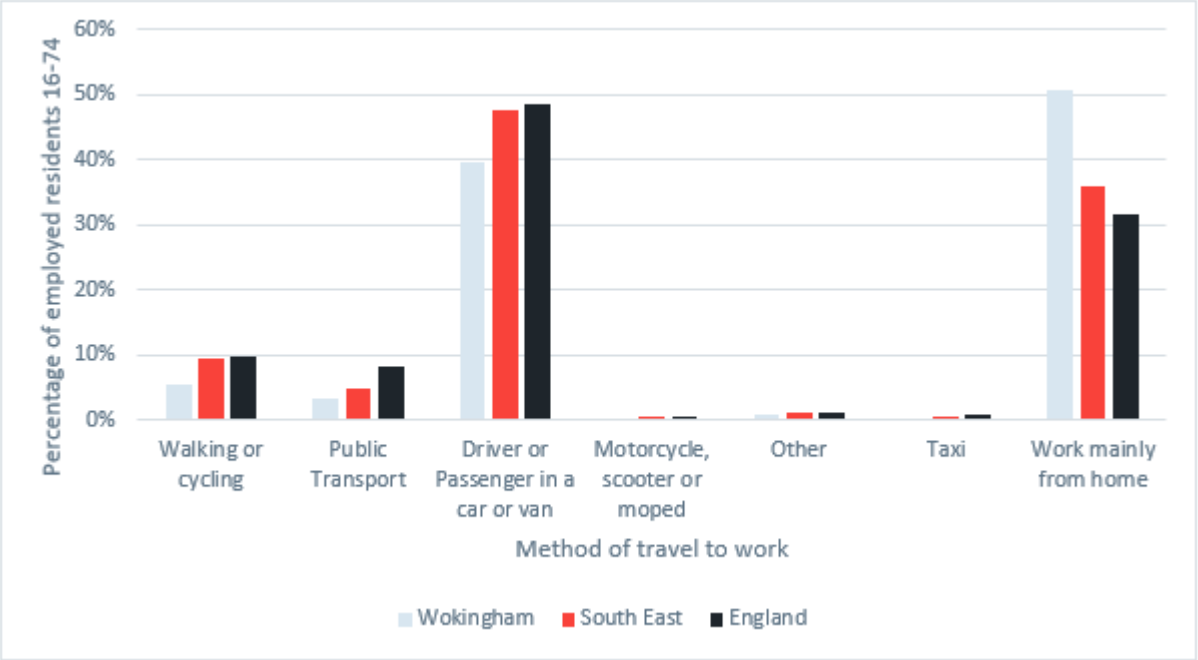
Figure 9-1 - Method of travel to work for resident adults aged 16 to 74 (Acc. Census 2011)



Source: ONS (2011) Census, Crown Copyright 2019 (QS701EW)

9.2.3. In Figure 9-2, which depicts the method of travel to work based on the census data from 2021, a clear trend emerges regarding the impact of COVID-19 on commuting habits. The data reveals a significant increase in the proportion of people working from home compared to the 2011 figures. This shift can be attributed to the widespread adoption of remote work arrangements prompted by the pandemic.

Figure 9-2 - Method of travel to work for resident adults aged 16 to 74 (Acc. Census 2021)



Source: ONS (2021) Census, Crown Copyright 2019 (QS701EW)

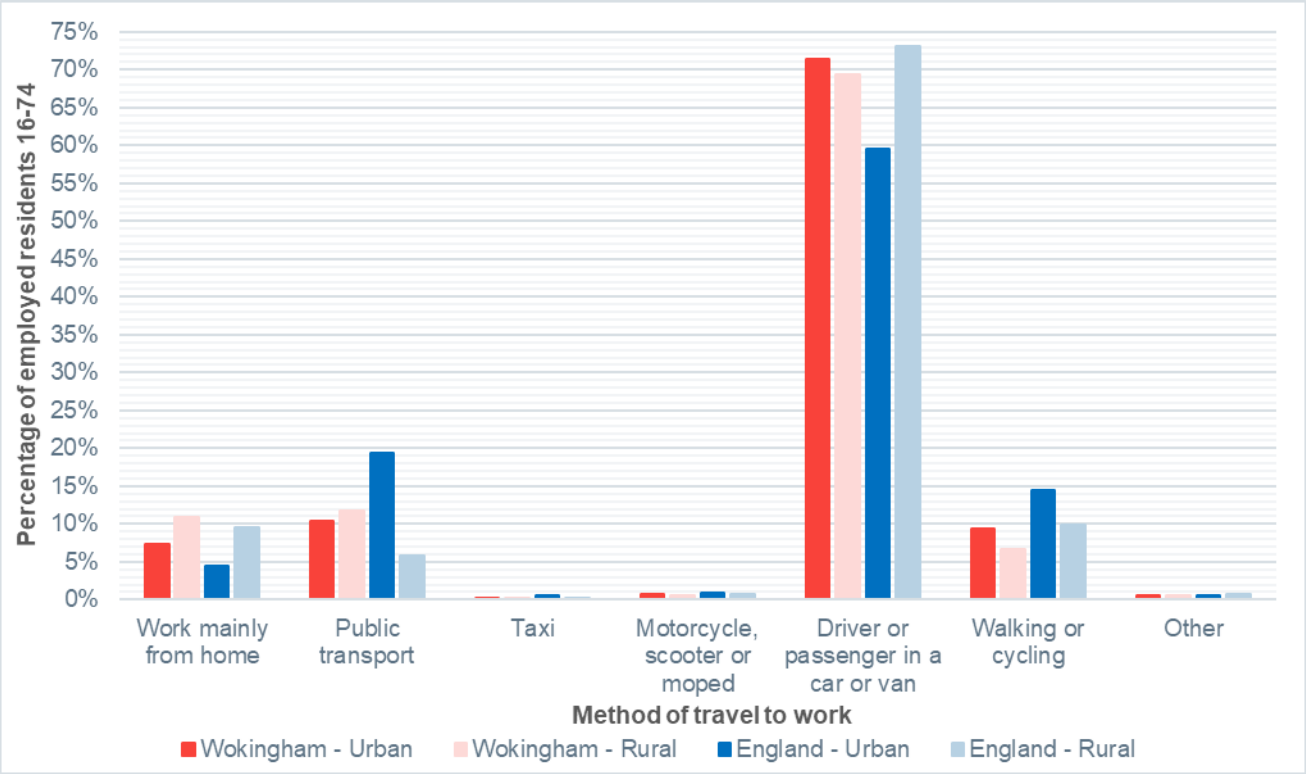
9.2.4. Furthermore, the data indicates a decrease in the share of individuals using cars and public transport for their daily commute. This suggests a decline in car dependency and a potential shift towards alternative modes of transportation. However, it is noteworthy that the figures for active transport, such as walking and cycling, have also decreased to 5 % in Wokingham compared to the overall South East region and England as a whole which has 10% of active transport mode share.

9.2.5. Figure 9-3 shows the method of travel to work for resident adults aged 16 to 74 for urban and rural residents. It shows that locally and nationally, a higher percentage of rural based commuters work from home and a lower percentage of rural based commuters' cycle or walk to work. Notably, there is.

- a higher percentage of driving from those living in urban areas in Wokingham than nationally
- a higher car mode split for those living in urban areas than rural areas.
- a higher percentage of rural residents use public transport to work than the national average.
- the proportion of residents using public transport is higher in rural areas than urban areas.

9.2.6. These are typically the opposite of commuter behaviour nationally, where public transport use is more than three times higher amongst urban based commuters and private car/van use is 13.5% higher amongst rural based commuters.

Figure 9-3 - Method of travel to work for resident adults aged 16 to 74, by area of residence



Source: ONS (2011) Census, Crown Copyright 2019 (QS701EW)

9.3 Travel to Work – Distance

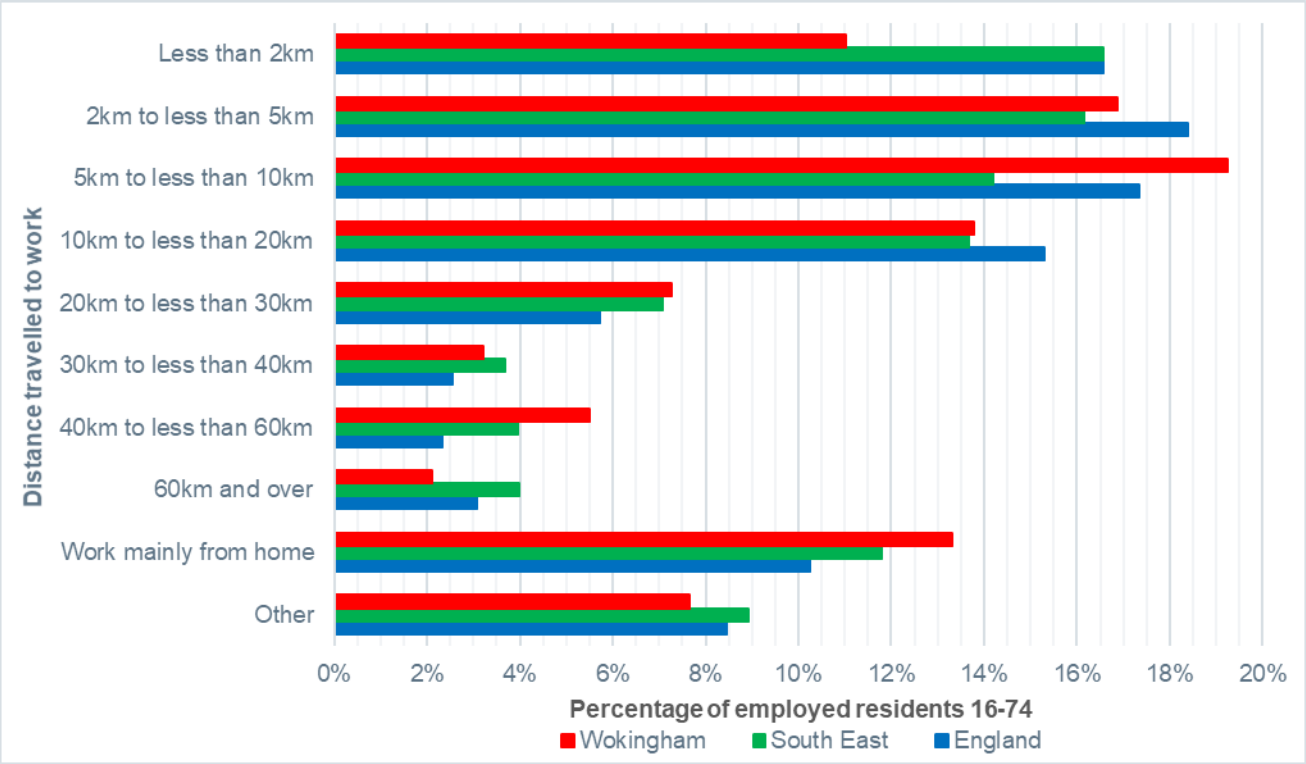
9.3.1. The average distance travelled to work by residents of the Borough is 15.4km, similar to both the regional average of 16.6km and 14.9km nationally[11].

9.3.2. Figure 9-4 illustrates the average distance travelled to work for residents of Wokingham Borough, the South East and England, and highlights that.

- The most common commuting distance in the Borough is between 5km and 10km (representing almost 20% of commute trips).
- The next most common is 2-5Km (17%)
- Over 1 in 4 commutes (28%) is less than 5km.
- The Borough has significantly less very short (less than 2km) and very long (60km and over) distance commuters when compared with regional and national levels.

[11] ONS (2011) Census, QS702EW - Distance travelled to work

Figure 9-4 - Distance travelled to work for resident adults aged 16 to 74



Source: ONS (2011) Census, Crown Copyright 2019 (QS702EW)

9.3.3. This also includes work from home, representing 13%, which is above the national and regional average. It should however be noted that the number of people working mainly from home is calculated differently for different ONS datasets. For Figure 9-4, Census respondents were specifically asked how they travel to work, with working mainly from home one of the given options. For Figure 9-4, the distance travelled to work did not constitute a specific Census question; instead, ONS statisticians calculated the distance based on home postcode and workplace postcode. This means that the number and proportion of the population who are reported to work primarily from home do not always correlate.

9.3.4. Table 9-1 shows the distance travelled to work for resident adults aged 16 to 74 in Wokingham Borough, by mode. Of particular note

- Driving is the most common mode for all of the different trip distances.
- For journeys to work under 2km in length, despite the short distance, walking accounts for just over a third of trips, compared to almost a half of commuters who drive.
- For journeys to work between 2km and 5km over 70% choose to drive, with only 11.4% choosing to cycle or walk and only 9.1% using public transport.
- The highest use of public transport was for journeys between 40km and 60km, typically reflecting commuting by rail from the Borough's stations to the London area.

Table 9-1 - Distance travelled to work for resident adults aged 16 to 74 in Wokingham Borough, by mode

Distance travelled to work	Public transport	Driving a car/van	Cycle	Walk	Other
Less than 2km	3.1%	47.9%	6.9%	36.7%	5.4%
2km to less than 5km	9.1%	71.5%	6.1%	5.3%	8.0%
5km to less than 10km	9.4%	79.0%	3.0%	2.1%	6.4%
10km to less than 20km	6.4%	86.3%	1.1%	1.5%	4.6%
20km to less than 30km	7.1%	87.2%	0.7%	1.6%	3.4%
30km to less than 40km	11.2%	83.2%	0.8%	1.1%	3.7%
40km to less than 60km	21.4%	73.7%	0.8%	1.5%	2.7%
60km and over	14.4%	72.0%	1.5%	7.1%	5.0%
No fixed place	8.8%	79.6%	0.9%	2.2%	8.4%

Source: ONS (2011) Census, Crown Copyright 2019 (WP7701EW)

9.4 Travel Patterns by ward

An overview of the main destinations from each area, and propensity to make these trips by car is shown below in Table 9-2. These have typically been considered by settlement. For larger settlements, such as Wokingham town, multiple MSOAs have been included in order to capture the full extent of the area. MSOAs. Only those settlements where the MSOA is suitably reflective are listed below.

9.4.1. The destinations were grouped by distance with ‘Internal’ (relating to the local area within the typology) and the ‘Rest of Borough’ being the first area. Reading, Bracknell and Slough / Maidenhead / Windsor were group as they are within a 10miles / 16km distance. London was grouped with Other as it fell outside of the 10miles radius.

9.4.2. The colour of the text represents the proportion of trips that are made by car, with green reflecting a low propensity (<50% of trips by car) and red showing a high propensity (>80%).

Origin	Internal	Rest of Borough	Reading	Bracknell	Slough / Maiden head / Winsor	London	Other
Borough Wide	**15%**	**20%**	**15%**	**10%**	**10%**	**10%**	**20%**
Wokingham town	**25%**	**15%**	**10%**	**15%**	**5%**	**10%**	**20%**
Earley	**10%**	**20%**	**30%**	**5%**	**5%**	**5%**	**20%**

Origin	Internal	Rest of Borough	Reading	Bracknell	Slough / Maiden head / Winsor	London	Other
Woodley	**15%**	**25%**	**25%**	**5%**	**5%**	**5%**	**20%**
Shinfield	**5%**	**25%**	**30%**	**5%**	**5%**	**5%**	**20%**
Winnersh	**10%**	**30%**	**20%**	**10%**	**10%**	**10%**	**20%**
Twyford	**10%**	**20%**	**15%**	**5%**	**15%**	**15%**	**25%**
Rural Areas	**15%**	**20%**	**10%**	**10%**	**10%**	**10%**	**25%**

9.4.3. Table 9-2 above shows that broadly, the

- number of people who both live in and work somewhere in the Borough are relatively consistent across the area, accounting for approximately 1 in 3 people commuting trips
- The number working in large nearby settlements also accounts for approximately 1 in 3 people
- 30% of people work in other locations, including typically 10% in London.

9.4.4. Wokingham town has the highest retention of people that both live and work within the area compared to any other ward in the Borough.

9.4.5. In the towns, there is a moderate level of self-containment of 15-25% within the centre of the larger towns of Wokingham and Woodley, and to a lesser extent Earley. A large proportion of these trips are made by walking and cycling. This is especially prominent in Wokingham and Woodley Town Centres, with approximately 50% of people who live and work in the town walk or cycle to work.

9.4.6. In more rural areas, there is still a moderate number of people who work within the ward they live, albeit a higher proportion of these trips are made by car.

9.4.7. There are however clear differences between the volume of movements to nearby settlements, particularly in relation to Bracknell and Reading.

9.4.8. For Earley, Shinfield and Woodley have a high draw to Reading, and high proportion of these trips are made by sustainable modes. Conversely, just 5% draw to Bracknell. However, in Wokingham town, Bracknell is the most common place to travel to for work outside the Borough.

9.4.9. For travel to Bracknell over 80% of trips are made by car. The majority of trips to Reading are also made by car, although there are comparatively higher levels of sustainable travel. In part this is due to some areas being within walking and cycling distance to Reading, although the higher sustainable travel to Reading compared to Bracknell is consistent across the Borough.

9.4.10. The proportion of trips to London and other areas remains reasonably consistent across the Borough and does not largely fluctuate based on where the residents live. For trips to London sustainable modes account for the majority of trips, especially rail. To other destinations, car accounts for over 80% of trips.

9.5 Self-Containment and Commuting Patterns

9.5.1. At the time of the 2011 Census[12], a significant proportion of people both lived and were employed in Wokingham Borough (21,690 people). 33.6% of Wokingham Borough residents working within the Borough (origin containment) and 41.3% of all employee jobs in Wokingham Borough were filled by people who also lived in the Borough (destination containment).

9.5.2. There were 52,545 people aged over 16 that had jobs in Wokingham Borough and 64,539 people aged 16 and over living in Wokingham Borough were in employment. This meant that the Borough had more workers than it had filled jobs in 2011, with net out-commuting standing at approximately 12,000.

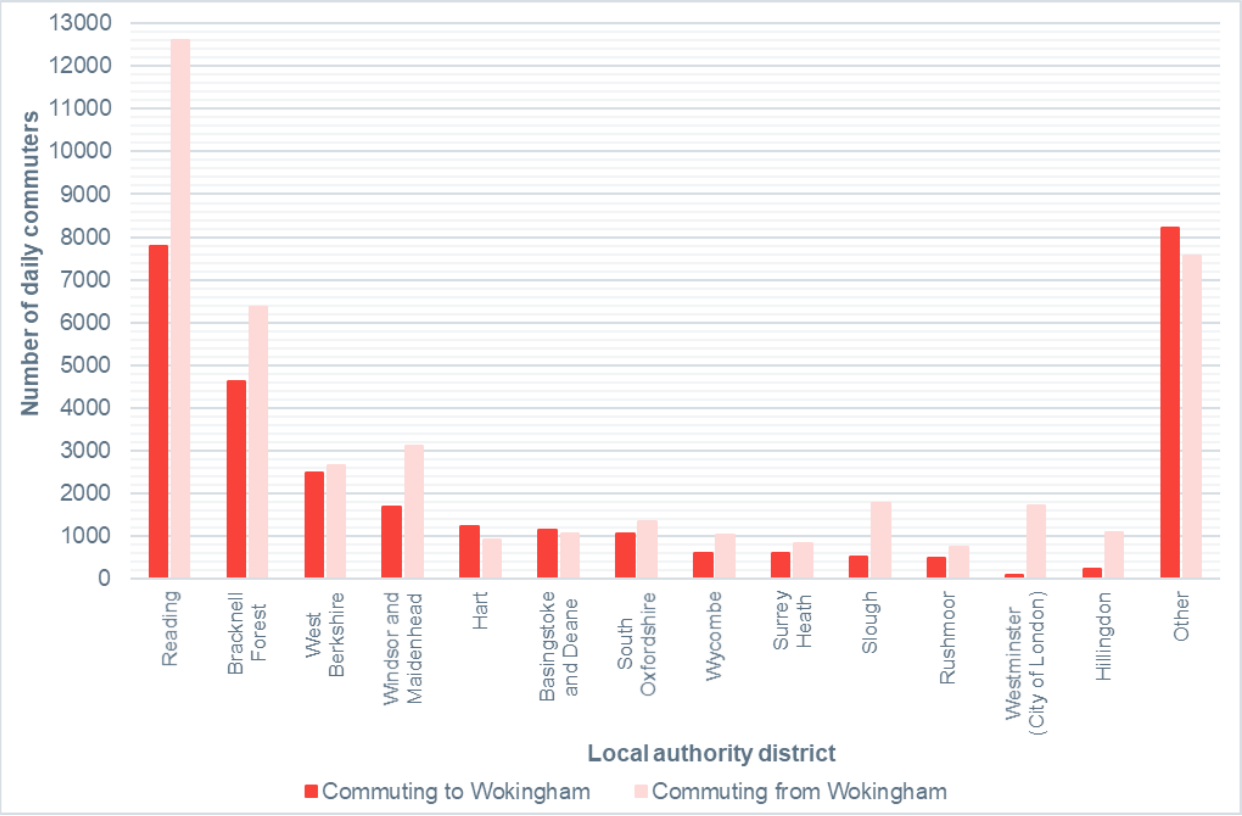
9.5.3. The top eleven local authority origins of workers commuting into Wokingham Borough are the eight local authority districts bordering Wokingham Borough along with Surrey Heath, Slough and Rushmoor.

9.5.4. The top eleven local authority destinations for Wokingham Borough residents commuting out of the Borough again include those eight bordering local authority districts, along with Slough: Westminster (City of London) and Hillingdon.

9.5.5. The levels of cross boundary commuting to and from these local or unitary authority districts are shown in Figure 9-5. Cross boundary commuting is at its highest between Wokingham Borough and Reading Borough with 7,778 inbound commuters and 12,616 outbound commuters, giving a net number of out-commuters of 4,838. Although on a smaller scale, net out-commuting also occurs from the Borough to most of the other local authority districts shown, with the exception of Hart and Basingstoke and Dean which both show small levels of in-commuting.

[12] ONS (2011) Census, WU03UK - Location of usual residence and place of work by method of travel to work

Figure 9-5 - Cross boundary commuting to and from Wokingham Borough in 2011



Source: ONS (2011) Census, WU03UK, Crown Copyright 2019

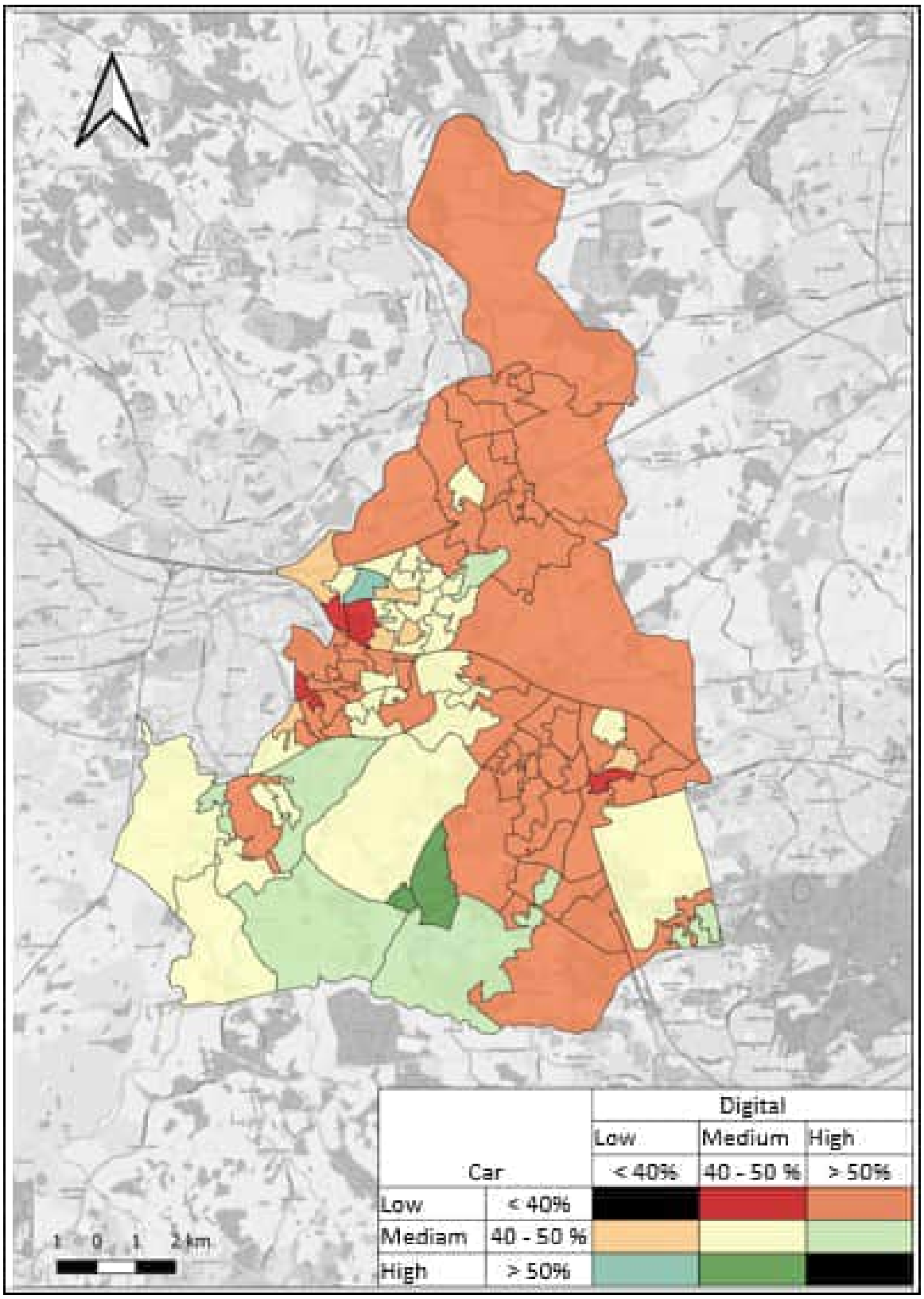
9.6 Working from Home and Changes in 2021

9.6.1. At the time of the 2011 Census, a significant proportion of people both lived and were employed in Wokingham Borough (21,690 people). 33.6% of Wokingham Borough residents working within the Borough (origin containment) and 41.3% of all employee jobs in Wokingham Borough were filled by people who also lived in the Borough (destination containment).

9.6.2. In the 2021 Census, it was found that 62% of the population aged 16 years and over in Wokingham were employed (excluding full-time students). This figure represents a decrease of 2.1% compared to the proportion recorded in the 2011 Census.

9.6.3. In Figure 9-6, a comparison is presented between the proportion of people working digitally without traveling to work and the proportion of people using cars as their mode of travel to work, based on their location. The data indicates that throughout Wokingham, there has been an increase in the proportion of people working digitally, which has consequently led to a reduction in the reliance on cars for commuting to work.

Figure 9-6 - Comparison of Work from home (Digital) and Car as mode of travel to work



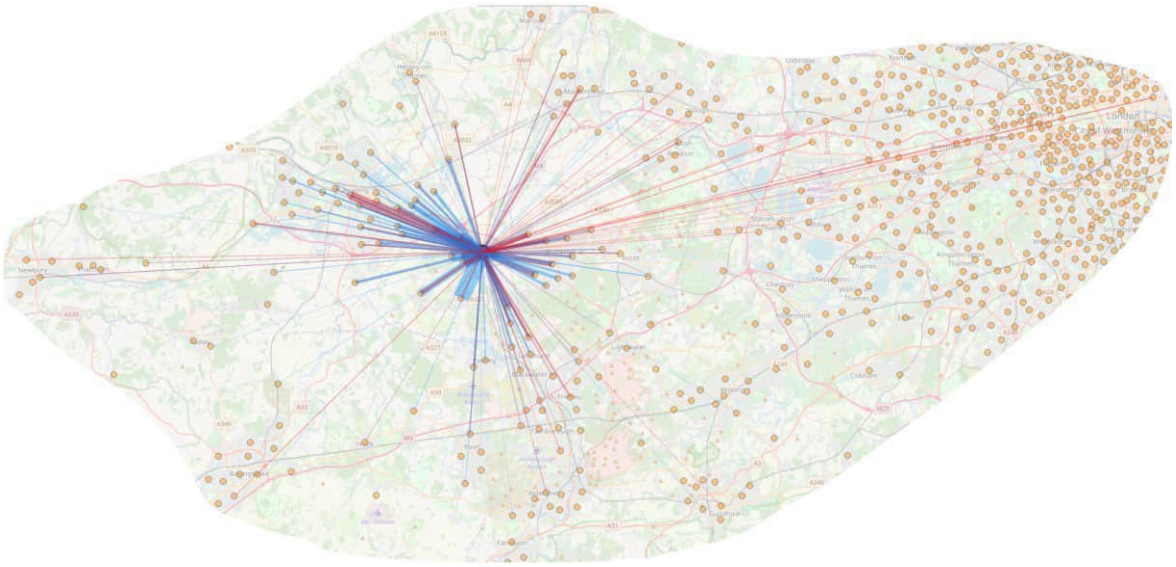
Source: ONS (2021) Census, TS061, Crown Copyright 2019

9.7 Settlement Commuting Patterns

Wokingham town

9.7.1. As shown in Figure 9-7, Wokingham town experiences more inbound commuting, with trip origins across Wokingham and Reading Borough and also Bracknell Forest. Outbound commuters are mainly destined for nearby destinations along the A329 corridor between Bracknell and Reading along with a limited amount of longer distance commuting to London, Maidenhead, Basingstoke, Newbury, Theale and the Blackwater Valley.

Figure 9-7 - Commuting patterns in Wokingham town



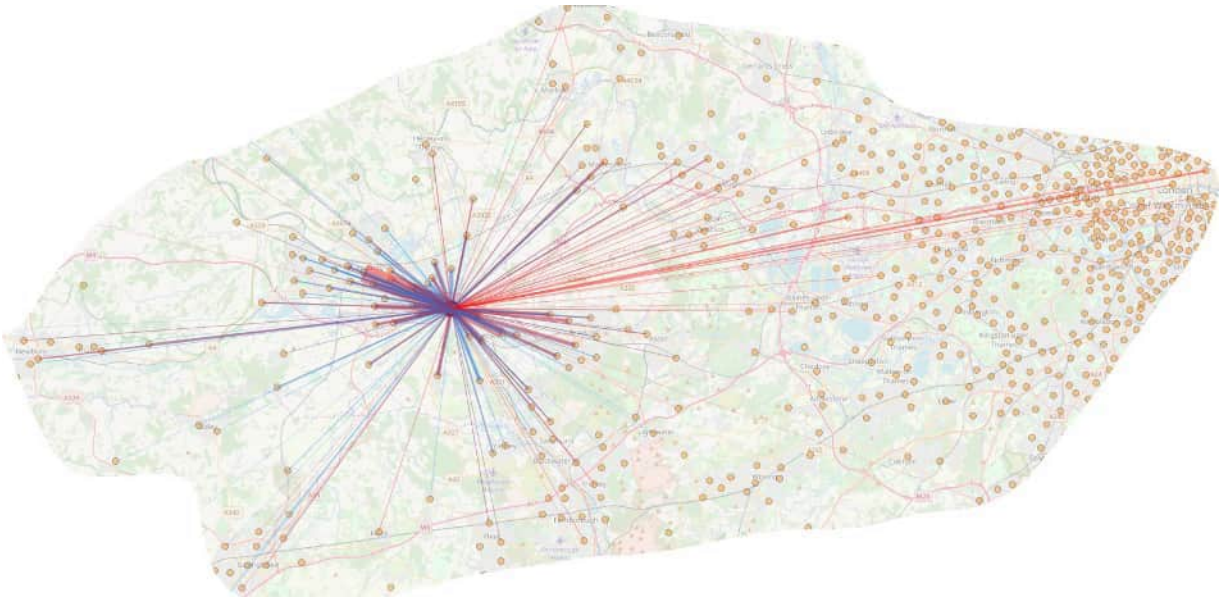
Source: 2011 Census Mapping, DataShine Commute, Oliver O'Brien and James Cheshire

WInnersh

9.7.2. As shown in Figure 9-8, Winnersh has a relatively even split between in and outbound commuting. The majority of inbound commuting originates in Wokingham and Reading Borough, although there is also some longer distance inbound commuting from Maidenhead, Basingstoke and Newbury.

9.7.3. The majority of outbound commuting is destined for Wokingham and Reading Borough, along with Bracknell Forest. There is also some longer distance outbound commuting to London, Maidenhead, Heathrow, Basingstoke, Newbury, Theale and the Blackwater Valley.

Figure 9-8 - Commuting patterns in Winnersh

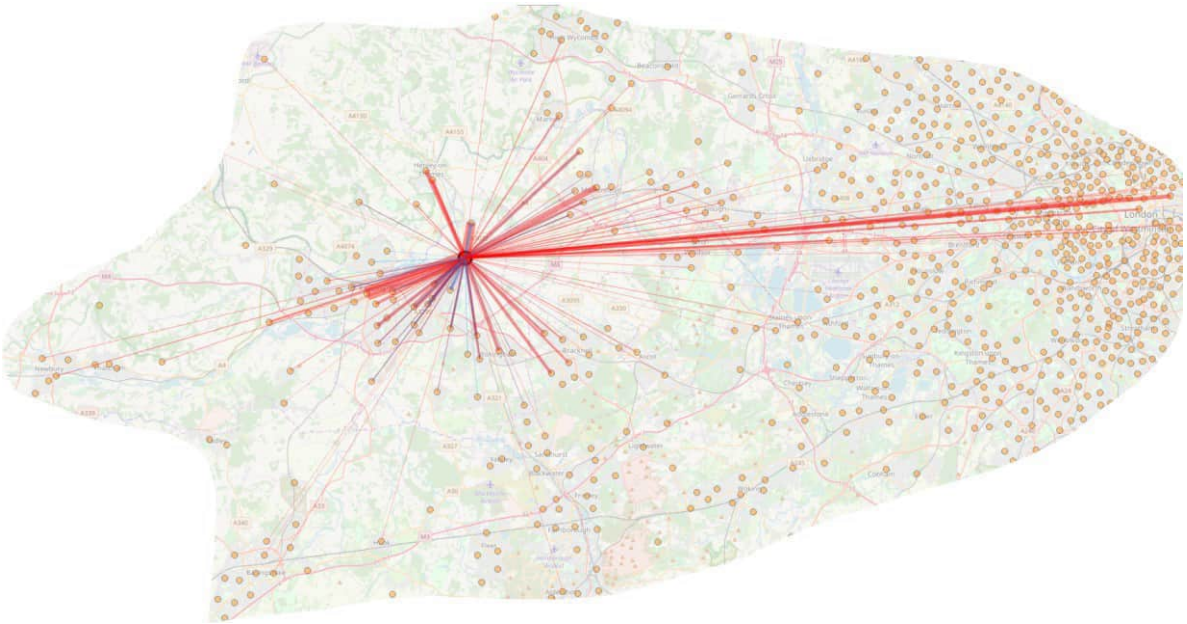


Twyford

9.7.4. Commuting patterns in Twyford are shown in Figure 9-9. Predominantly Twyford experiences outbound commuting with the main destinations being the nearby areas of Reading, Wargrave, Earley, Woodley, Henley and Maidenhead. In addition, due to its location on the railway line to London Paddington, it also sees significant outbound commuting to Central London.

9.7.5. There is a limited amount of inbound local commuting from Wargrave, Earley and Woodley.

Figure 9-9 - Commuting patterns in Twyford



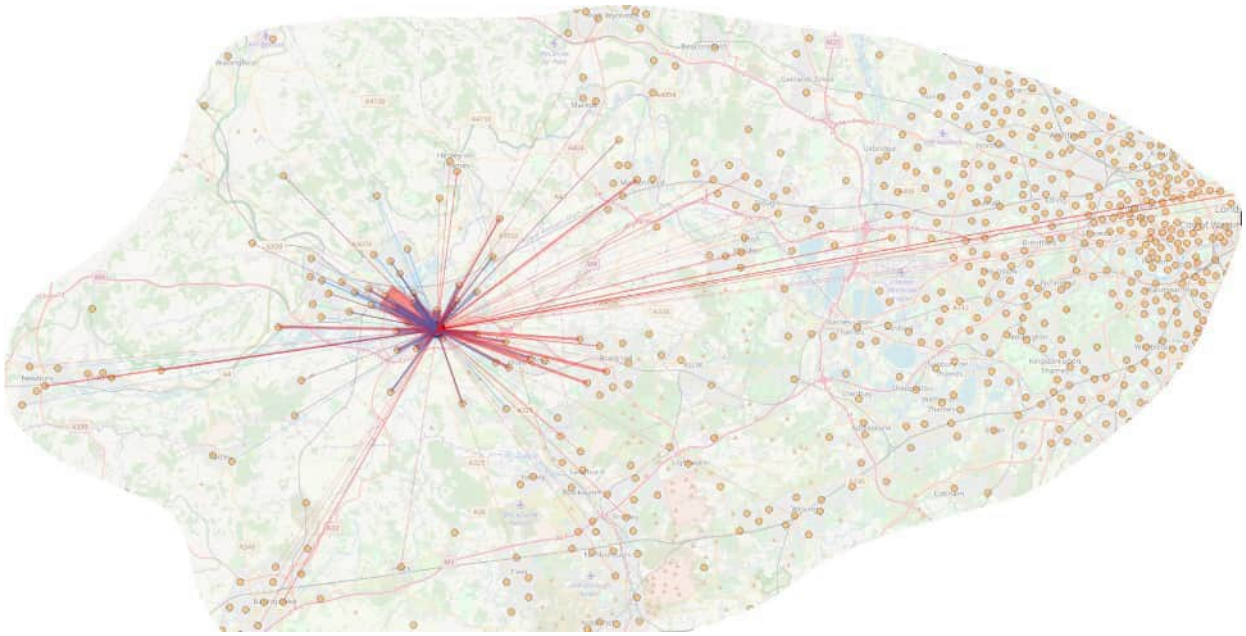
Source: 2011 Census Mapping, DataShine Commute, Oliver O'Brien and James Cheshire

Lower Earley

9.7.6. Commuting patterns in Lower Earley are shown in Figure 9-10. Like Twyford, it also experiences predominantly outbound commuting with the main destination being central Reading. In addition, commuters are mainly destined for other parts of Wokingham and Reading Boroughs although there are some longer distance commuters destined for London, Maidenhead, Basingstoke, Newbury, Theale and the Blackwater Valley.

9.7.7. There is a limited amount of inbound very localised commuting from mainly from areas within Wokingham and Reading Boroughs that lie to the north of the M4.

Figure 9-10 - Commuting patterns in Lower Earley



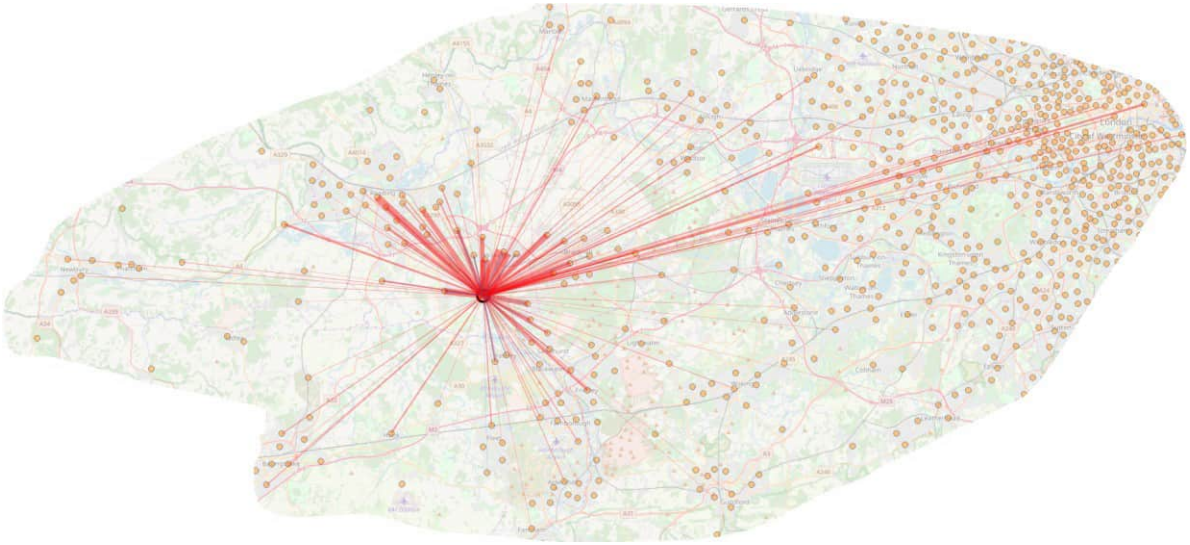
Source: 2011 Census Mapping, DataShine Commute, Oliver O'Brien and James Cheshire

Finchampstead

9.7.8. Commuting patterns in Finchampstead are shown in Figure 9-11 that highlights that almost all commuting is outbound with commuters destined for locations across Wokingham and Reading Borough and also Bracknell Forest. There is also a limited amount of longer distance commuting to London, Maidenhead, Heathrow, Basingstoke, Newbury, Theale and the Blackwater Valley.

9.7.9. The is a very limited amount of inbound local commuting from nearby parts of the Borough, along with nearby parts of Bracknell Forest and Yateley.

Figure 9-11 - Commuting patterns in Finchampstead



Source: 2011 Census Mapping, DataShine Commute, Oliver O'Brien and James Cheshire

10 Regional and Neighbouring Authority Transport Plans

10.1 Introduction to Transport for the South East

10.1.1. Transport for the South East (TfSE) is the Sub-National Transport Board (STB) that covers Wokingham Borough and surrounding areas in the South East. as shown by the areas in blue in Figure 10-1 below, the red dot shows the approximate location of Wokingham. TfSE covers 16 local transport authorities, five local enterprise partnerships, 46 district and brough councils and a wide range of stakeholders from transport, business and the environment.

Figure 10-1 - The Areas Covered within Transport for the South East

Source: TfSE Transport Strategy, 2020

10.1.2. TfSE is a key region outside of London adding more to the UK economy than any other region outside of London. Its ports, airports and railway links provide a key gateway for Britain into Europe and the rest of the world, whilst the roads and railway network help to tie the local area together. This helps to provide key transport links for the people and businesses that are helping to drive innovation across a wide range of growing industries. However, there are parts of the transport network under strain at certain times and interventions that could further support the regions priorities.

10.1.3. TfSE have produced a Transport Strategy, Strategic Investment Plan (SIP) and a Future Mobility Strategy for the area, all which detail interventions and measures for the area. Interventions set out within its Transport Strategy can be adapted to meet the specific needs of places within the area.

10.2 Transport Strategy

10.2.1. The TfSE Transport Strategy sets out its ambitious vision for the region, which is underpinned by three goals, a set of priorities to achieve these goals and a further five principles.

10.2.2. The vision for the Transport Strategy for TfSE is as follows:

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

10.2.3. The goals and principles have been set around three areas: Environment, Economy and Society and include supporting sustainable economic growth, protecting the environment, creating great places to live, putting people first, and planning regionally for the short, medium and long-term.

10.2.4. In regard to developing the strategy and directing potential future investment, TfSE have considered the opportunities and challenges around different journey types. This has been done through considering how and why a wide range of people travel and goods are moved. A total of six types of journeys have been identified, these are listed below based on how applicable they are to Wokingham:

- **Radial Journeys (Wokingham to London and the rest of the South) –** Longer journeys using major road and motorway networks as well as main line railways to/from central London. These included journeys within the South East and to the South West and South Midlands. The big challenges to be addressed are congestion and overcrowding, and the subsequent air and noise pollution were major routes pass through urban areas.
- **Inter-Urban Journeys (Wokingham to Bracknell / Reading) –** Medium-distanced journeys between main towns and cities in the region, most commonly to Bracknell and Reading. Bus is the primary means of public transport, but growing congestion could harm its viability. Bus sector support is key because it has better integration with active travel.
- **Local Journeys (Within Wokingham) –** Short distance journey to destinations within the same village, town or city, and includes walking and cycling. They also include first/last stage of longer distance journeys. Better connected and low-cost public transport is key to reducing congestion and pollution as well as improving safety in urban areas and connectivity in rural areas.
- **Future Journeys (Within Wokingham) –** These are any journeys using emerging technology – including e-scooters, car club schemes and smart ticketing. This is a rapidly

developing area. TfSE have commissioned a separate Future Mobility Strategy to consider this further.

- **Orbital and Coastal Journeys –** Longer east-west passenger journeys across the South East region. There are fewer roads and railways to facilitate this movement, so the routes have a lower capacity than radial corridors. Investment here needs to focus on speeding up journey times, especially by rail, as it's currently faster and easier to travel via London.
- **Internal Gateways and Freight Journeys –** The South East's ports, airports and international rail links are vital to the UK economy, jobs and commerce. Investment is needed for new public transport links to airports alongside road and rial links to ports. TfSE also supports investment into freight schemes to move goods from lorries/vans to rail and other lower carbon modes.

10.2.5. The next steps for TfSE are to carry out area and thematic studies to identify specific schemes and policy initiatives that will be needed in different parts of the region, as well as developing a Strategic Investment Plan based on the outputs of the area and thematic studies. The next steps will be getting statutory status and securing funding for the region. This will all be developed in future engagement in conjunction with key stakeholders from across the region.

10.3 Transport Strategy and Wokingham Borough

10.3.1. Wokingham Borough is positioned on one of the identified strategic corridors between Reading and Bracknell, both areas are considered Major Economic Hubs – see below for more information. In 2018, TfSE published the Economic Connectivity Study Review which provided an overreaching view of the economic geography and potential up to 2050 in the South East. It identified key priority industrial sectors which Wokingham Borough falls within both IT and Advanced Engineering and Manufacturing.

10.3.2. Key information identified within the Transport Strategy in relation to Wokingham Borough are:

- Key Priority Industrial Sectors: IT and Advanced Engineering and Manufacturing.
- Household Increase (2014-2041): 7500-15,000
- Job Increase (2014-2041): 7500-10,000
- Journey time by public transport to Central London – 60-90 minutes, with parts of the borough taking less than 60 minutes (Twyford and Wokingham Station)
- AQMA and Localised AQMAs identified – Wokingham town Centre, Twyford Crossroads and Wokingham M4
- Road Noise Decibels – M4 and A329 (M) are high, and to a lesser extent the A329 and the A321.

10.4 Strategic Investment Plan for the South East

10.4.1. TfSE have produced a draft Strategic Investment Plan (SIP) for the South East which covers a 30-year period and sets out 24 regional packages of complementary, multi-modal interventions that aim to deliver the vision and objectives of the STB. These have been developed through workshops and discussions with partners, stakeholders and technical advisors to deliver the STBs vision and objectives as well as supporting wider local, regional and national policies and priorities.

10.4.2. Wokingham sits within the Wessex Thames region and TfSE have developed an Active Travel Rail Package, Mass Transit and Highways packages of interventions for the area. The total expected capital investment into the area is £10.4billion. Table 10-1 below summaries the aims and objectives of each package for the Wessex Thames Area.

Table 10-1 - Summary of aims for each package within the Wessex Thames Area

Active Travel Package	Rail Package	Mass Transit Package	Highway Package
270,000 more active travel trips a day	At least 90,000 additional trips each weekday	Almost 450,000 more bus and mass transit trips each weekday	Improve air quality in urban areas
240,000 fewer car journeys each weekday	More than 3700 new jobs created	At least 250,000 fewer car journeys each weekday	Additional £90million of Gross Value Added a year by 2050
30,000 tonnes less CO_2 equivalent emitted a year	More than 3000 new residents accommodated	1300 more jobs supported	No data
No data	15,000 tonnes less of CO_2 equivalent embittered a year	At least 50,000 fewer tonnes of CO_2 equivalent emitted a year	No data

Source: TfSE Draft SIP, 2022

10.4.3. Table 10-2 below summaries the interventions for each package that are relevant or related to Wokingham.

Table 10-2 - Summary of each intervention within Wokingham for each package

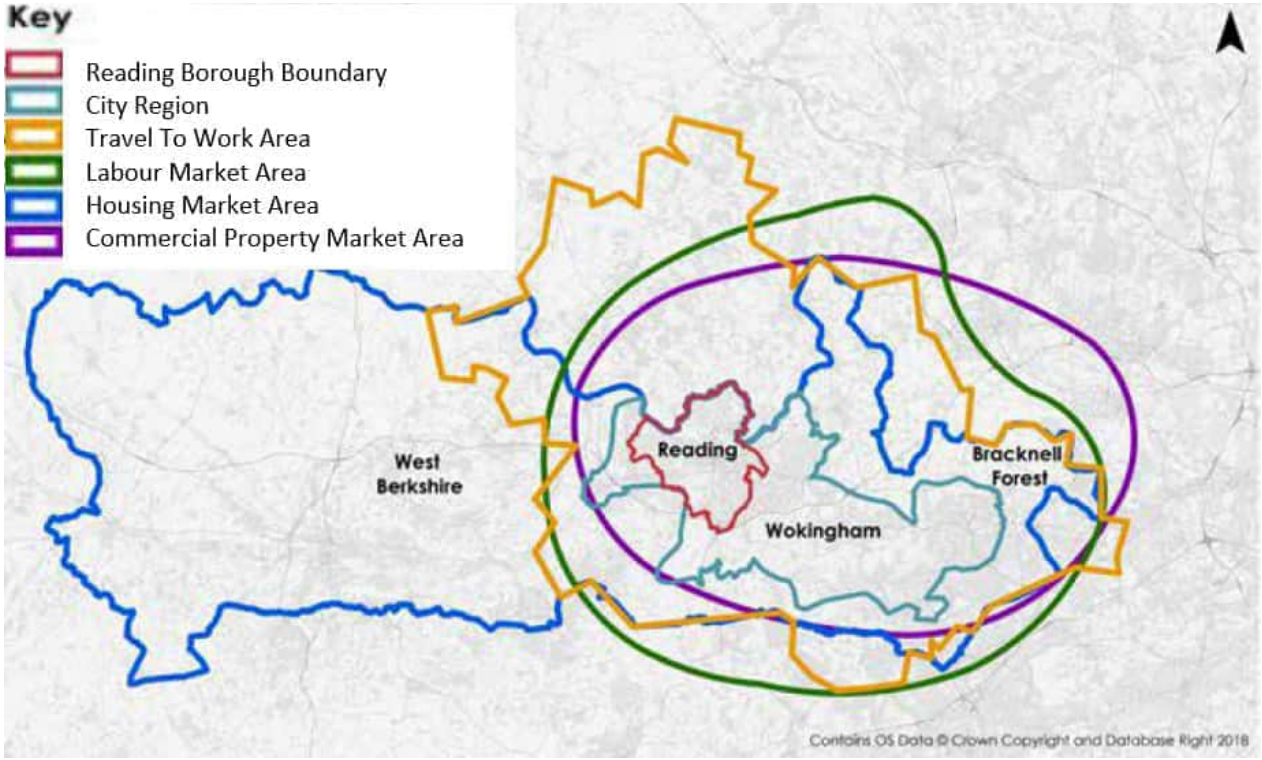
Active Travel Package	Rail Package	Mass Transit Package	Highways Package
Berkshire, Hampshire and Surrey Urban and Inter-urban cycleways	Reading to Waterloo Service Enhancements	Bracknell / Wokingham Bus Enhancements	M4 Junction 10 Safety Enhancements
No data	No data	A4 Reading - Maidenhead – Slough – London Heathrow Airport Mass Rapid Transit	A329 (M) Smart Corridor
No data	No data	A329 / B3408 Reading – Bracknell / Wokingham Mass Rapid Transit	M4 Junction 3 to Junction 12 Smart Motorway (SMP)

TfSE Draft SIP, 2022

10.5 Reading Transport Strategy 2036

10.5.1. The following is based on the Reading's draft Transport Strategy which was consulted on in 2020; a new version of the Strategy went out to consultation in October 2023. The draft Reading Transport Strategy 2036 sets out a plan for developing the area's transport network to 2036 and beyond. The strategy also includes cross-boundary schemes and initiatives. Figure 10-2 below shows the different areas within Reading and neighbouring authorities that are captured within different areas. Wokingham is factored into the strategy within Readings wider city region, travel to work area, commercial property market area and labour market area. This highlights that Wokingham is fully within the Reading TTW.

Figure 10-2 - Reading Transport Strategy Region and Surrounding Areas



10.5.2. The strategy sets out a vision which is to "deliver a sustainable transport system in Reading that creates an attractive, green and vibrant town with neighbourhoods that promote healthy choices and wellbeing. Future mobility options will enable everyone in Reading to thrive, enjoy an exceptional quality of life and adapt to meet future challenges and opportunities". Five strategic objectives have been developed to help achieve this vision, these are:

- Creating a clean and green Reading.
- Supporting healthy lifestyles.
- Enabling sustainable and inclusive growth.
- Connecting people and places; and
- Embracing smart solutions.

10.5.3. The Reading strategy identifies car congestion as having a negative impact on the public transport network and services, especially during the peak periods. Figure 10-3 below shows the key public transport corridors that are negatively impacts by car congestion during the PM peak. This highlights the A329 and routes with Earley, Woodley and into Shinfield are negatively impacted.

10.5.4. The draft LTP strategy highlights an opportunity to improve these routes where there are movement conflicts and bus delays. An example of measures to improve this is introducing 'Red Routes' which aims to keep buses moving and reduce delays for passengers, whilst improving safety for pedestrians and cyclists. Following on from this the strategy sets out a proposed strategic public transport network as shown in Figure 10-4, with both rail and bus connection that run into / through Wokingham.

10.5.5. Two identified measures include ‘Quality Bus Corridors’ with improvement measures including road space reallocation, red routes, bus priority, bus gates and many more. The A329 from Reading to Winnersh Triangle, A327 connecting the university, Shinfield and Arborfield, and Woodley are identified as Quality Bus Corridors. The second is ‘Fast Track Public Transport Corridors’ which includes designing to meet the needs of buses and future public transport modes. These routes include the A329 from Reading to Coppid Beech Park and Ride and the B3270 Lower Earley Road.

Figure 10-3 - PM Peak Car Congestion Impacting Bus Services

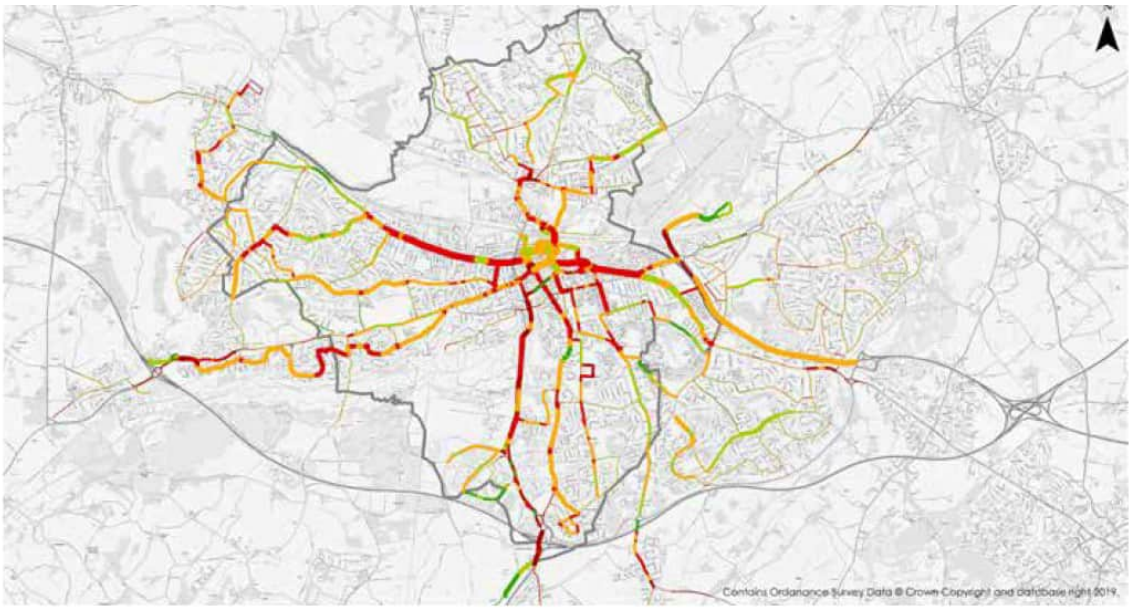
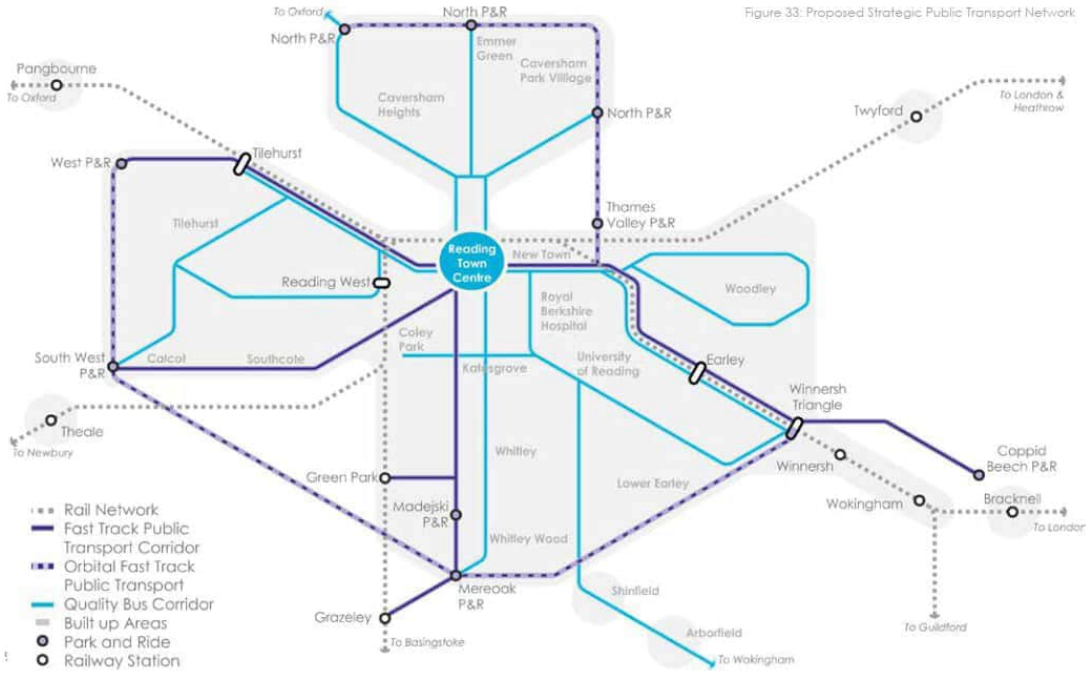
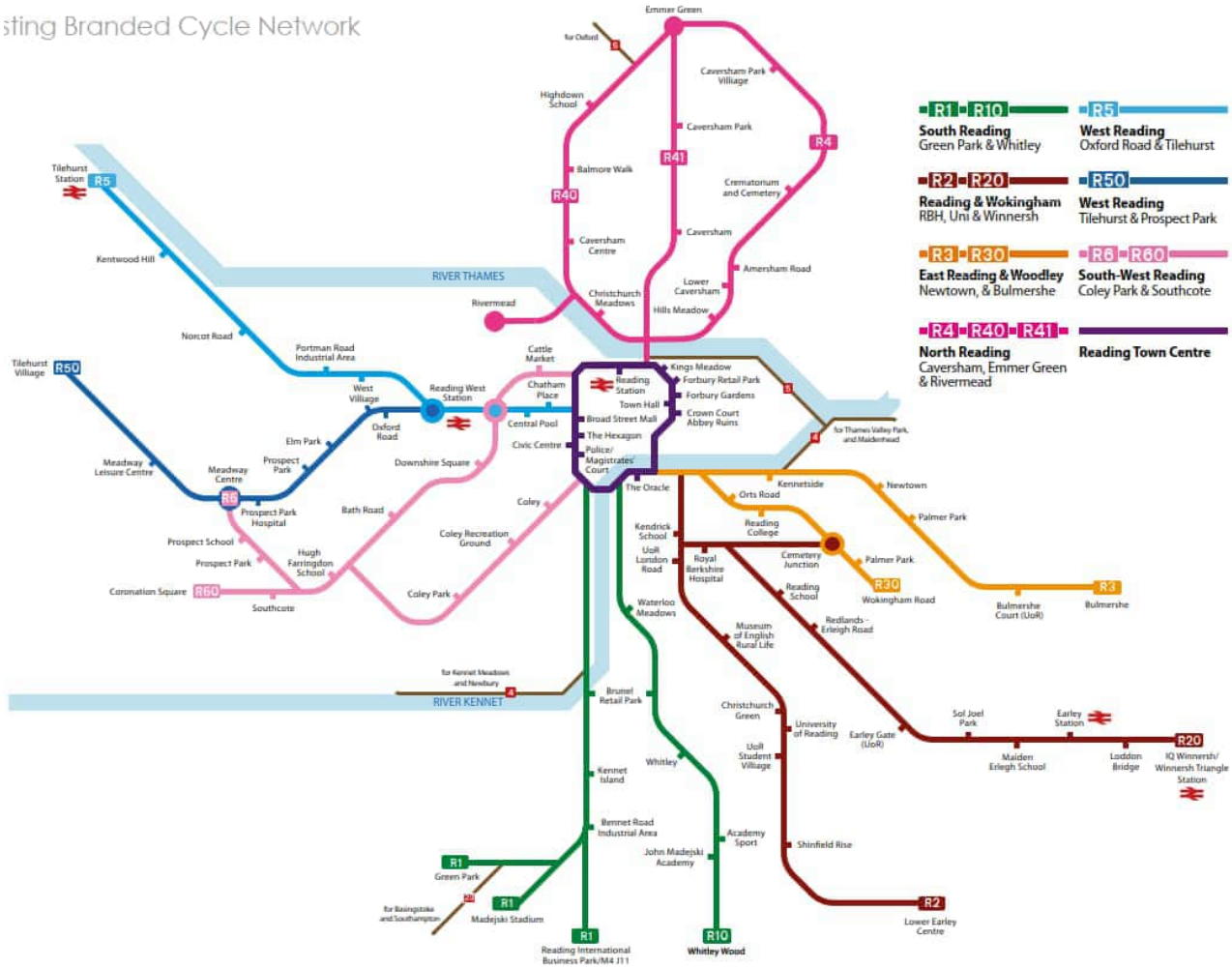


Figure 10-4 - Proposed Strategic Public Transport Network for Reading



10.5.6. Reading is developing a series of branded and colour coded local cycle networks, as shown below in Figure 10-5. There are three routes that connect into Wokingham which are the R3 / R30 route connecting into Woodley, the R20 connecting into Winnersh and the R2 connecting in Earley. The route R10 connects into Whitely Wood which can also impact Wokingham residents.

Figure 10-5 - Existing Local Cycle Network in Reading



10.5.7. The strategy identifies a list of different schemes and measures for Reading. Table 10-3 below summaries the schemes that relate to Wokingham.

Table 10-3 – Schemes relating to Wokingham within the Reading Transport Strategy

Scheme	Description	Delivery Partners	Timescale
Mereoak Park and Ride Expansion	Increased parking provision, EV charging points and facilities hub	Wokingham Borough Council (WBC)	2020 - 2025
Thames Valley Park and Ride	A new 260 space P&R west of Thames Valley Park. Served by the existing shuttle bus services between the P&R and Reading.	WBC	2020 - 2025
Green Park Station	New railway station serving Green Park and wider southern Reading area.	NR, GWR, West Berkshire Council	2020 - 2025

Scheme	Description	Delivery Partners	Timescale
Cycle Hire Scheme	New cycle hire scheme to serve Reading and key destinations across wider area.	Private sector, WBC, OCC, West Berks Council	2020 - 2025
East Reading FTPT Corridor	FTPT corridor in the eastern area of Reading linking Thames Valley P&R and the Town Centre	WBC, Public transport operators	2020 – 2030
Winnersh Triangle Park and Ride Enhancements	Increase parking capacity and improve P&R services including the provision of more electric charger points.	WBC	2020 - 2030
Cycle Parking Hubs and Facilities	Provision of secure & covered cycle hubs at transport interchanges, electric charging points and bicycle repair facilities	NR, GWR, SWR, local community	2020 - 2030
South Reading Fast Track Public Transport Corridor	Staged delivery of FTPT route along the A33 linking Mereoak P&R - South Reading business parks - Kennet Island - Madejski Stadium - Reading town centre	WBC, Public transport operators, Royal Berkshire Hospital, University of Reading, Private sector	2020 – 2030
Orbital Fast Track Public Transport	Delivery of orbital FTPT corridors, linking key transport hubs, residential areas and employment areas	WBC, West Berkshire Council, Public transport operators	2020 – 2036+
Third Thames Crossing East of Reading	New multi-modal river crossing with bus priority and segregated walking and cycling facilities linking eastern Caversham and the northern end of the A3290. Links to other proposed schemes including the East FTPT route, North Reading P&R facilities and the North Reading Orbital Route.	WBC, OCC, DfT South Oxfordshire District Council Local Parish and Town Councils Highways England	2020 – 2036+

10.5.8. Reading Borough Council has identified the following priority investment schemes to enhance the connectivity of Reading. The schemes relating to Wokingham are:

- Comprehensive M4 smart motorway and enhancements to the major road network.
- Measures to improve rail through the Elizabeth Line, electrification, and other measures to de-carbonise the railway network.

10.5.9. The strategy recognises the need to work with neighbouring authorities and the following schemes relate to Wokingham and help connect Reading with the wider region:

- Enhance the FTPT network through the southeast public transport corridor proposed within Wokingham's current strategy which includes proposals for high-quality express bus services along the A329 corridor.
- Comprehensive Park and Ride network complemented by other Park and Rides in the region including Coppid Beech Park and Ride. The Coppid Beech P&R facility will serve people travelling to Reading from Bracknell and eastern parts of Wokingham. This will link to the overall network through the East and South FTPT corridors providing an attractive alternative to the private car for those travelling to Reading from the east.

11 Future Development

11.1 Overview

11.1.1. Future development in the borough is currently outlined in the adopted Core Strategy (January 2010) and sets out the key elements of the vision for the development of the borough until March 2026. It includes 21 policies and strategies to provide new housing, schools, roads, places to work and other services. The strategy planned for at least 13,230 new dwellings being delivered over the plan period (2006 – 2026).

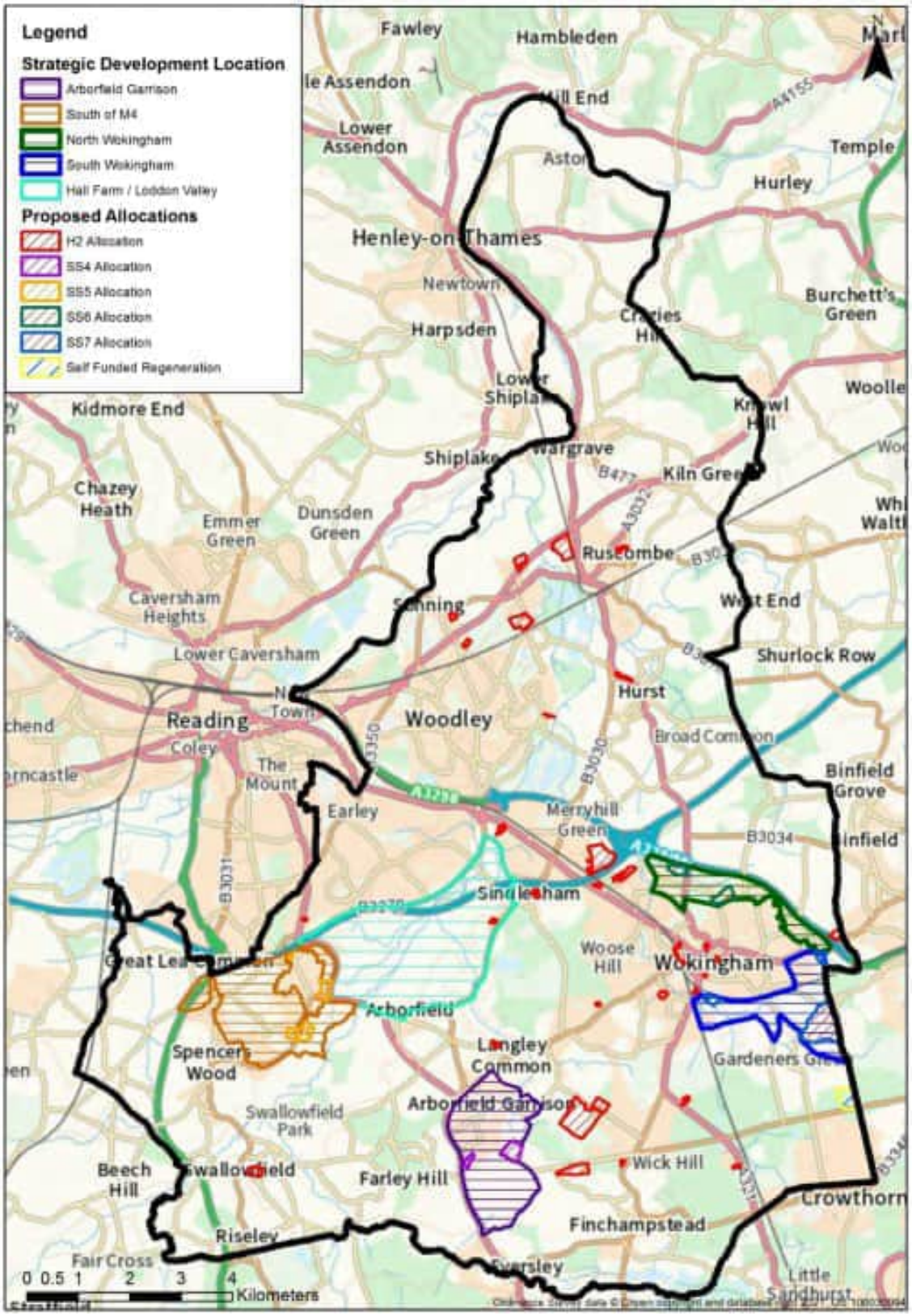
11.1.2. Following the Core Strategy, the Managing Development Delivery Local Plan (February 2014) was developed to build on the Core Strategy and includes more detailed policies for the development of the borough. It was adopted on 21 February 2014 and sets out the planning criteria to be used to determine applications for planning permission in the borough. The document includes specific development allocations towards the housing requirement of at least 13,230 new dwellings.

11.1.3. Wokingham Borough Council is currently developing an updated Local Plan which will shape the future of Wokingham Borough. The updated local plan will guide where and how growth will take place in the borough in the years up to at least 2038. It is expected that the Local Plan Update will be completed ('adopted') by 2025.

11.1.4. Figure 11-1 below shows the Local Plan Update proposed allocations which are required to achieve the delivery of approximately 14,000 dwellings over the plan period 2018-2038. This includes a proposed strategic development in the Hall Farm / Loddon Valley area. It also identifies the location of the four existing SDLs, these are: Arborfield Garrison, South of the M4, North Wokingham and South Wokingham which will continue to deliver housing and infrastructure during the new plan period.

11.1.5. It should be noted that the Local Plan Update is a draft document and subject to change. A further consultation on the local plan update was planned in summer 2022, however changes to the council's political administration resulted in this not going ahead. An updated Local Development Scheme will be published in due course.

Figure 11-1 – Local Plan Update proposed spatial strategy



11.2 Strategic Development Locations (SDLs)

11.2.1. Figure 11-1 above shows the SDLs identified within the borough as part of the emerging Local Plan Update, which includes the four existing SDLs and the proposed Hall Farm / Loddon Valley development. Two of these sites are located near Wokingham town (North Wokingham and South Wokingham). For North Wokingham, roughly 1,600 dwellings have been completed. The Northern Distributor Road has been built to support these developments and provide access through the site.

11.2.2. Improvements to transport capacity along the A321 and A329 including the delivered Northern Distributor Road (NDR) from the A329 (near the M4 over-bridge) to the Coppid Beech roundabout are planned to facilitate development. Measures to improve accessibility by forms of active travel along the A321 and A329 corridors are also planned. Cycle and pedestrian movements will be supported by an internal network of Greenways to connect to Wokingham town centre and the Toutley Industrial Estate.

11.2.3. For South Wokingham, the development north of the railway line has already been completed which includes a primary school and food store. The area south of the railway has been granted planning permission with construction to take place in the next few years. This southern section includes a major new road, a second primary school and a neighbourhood centre. Future plans include the development of the land south of Waterloo Road for 835 dwellings, land to the west of St Anne's Drive and south of London Road for 54 dwellings and Gray's Farm for outdoor and indoor sports and community uses. Additional area for housing at land south of Gipsy Lane are proposed to provide 17 dwellings. Plans also include continued improvements to transport capacity along the A321 and A329 including the provision of the Southern Distributor Road and measures to continue to improve accessibility by forms of active travel along the A321 and A329 corridors.

11.2.4. Another SDL, South of the M4, is located near to Shinfield and the other Reading facing towns. At this site, around 2,200 dwellings have been built with many still under construction. To support this development, the Eastern Relief Road was constructed in 2017. The Alder Grove CofE Primary School opened in 2020, this was the first of two planned new schools. Work to deliver a new supermarket as part of the Shinfield neighbourhood centre is also underway. The identification of land north of Arborfield Road, Shinfield, for 191 dwellings and land east and west of Hyde End Road for 175 dwellings will be proposed alongside Lane End House for 5 dwellings. Improvements to the highway capacity along the A327 (on routes to Reading and the M3), the A33 (route to Reading) were identified as necessary through a Transport Assessment alongside measures to improve accessibility by active travel along the A327 and A33 corridors and routes to the stations at Green Park and Winnersh Triangle.

11.2.5. The fourth SDL is located within the rural area in the south of the borough at Arborfield Garrison where around 1,200 dwellings are already complete. The Arborfield Cross Relief Road (Observer Way) opened in 2020 to facilitate the development and connect it the A327 towards Shinfield which helps to remove traffic from Eversley Road and Reading Road. Two new schools have opened on site which will help to reduce the need for car travel at peak times. Future plans include retail and social facilities, a second primary school, employment land (up to 12,000sqm) and 150 new dwellings. There are planned improvements for transport capacity along Barkham Road and Barkham Bridge, the A327 (to both the M3 and Reading) and routes towards Bracknell and Wokingham (including the extension of Nine Mile Ride to the A327). Measures to improve active travel facilities include improvements to the frequency of public transport services along the A327, B3030, B3349 and B3430 routes to Bracknell, Reading, Winnersh and Wokingham. An internal network of Greenways to connect existing and new communities at Arborfield SDL to Finchampstead North and Crowthorne will prioritise cycle and pedestrian movements through the site.

12 Active Travel

12.1 Introduction

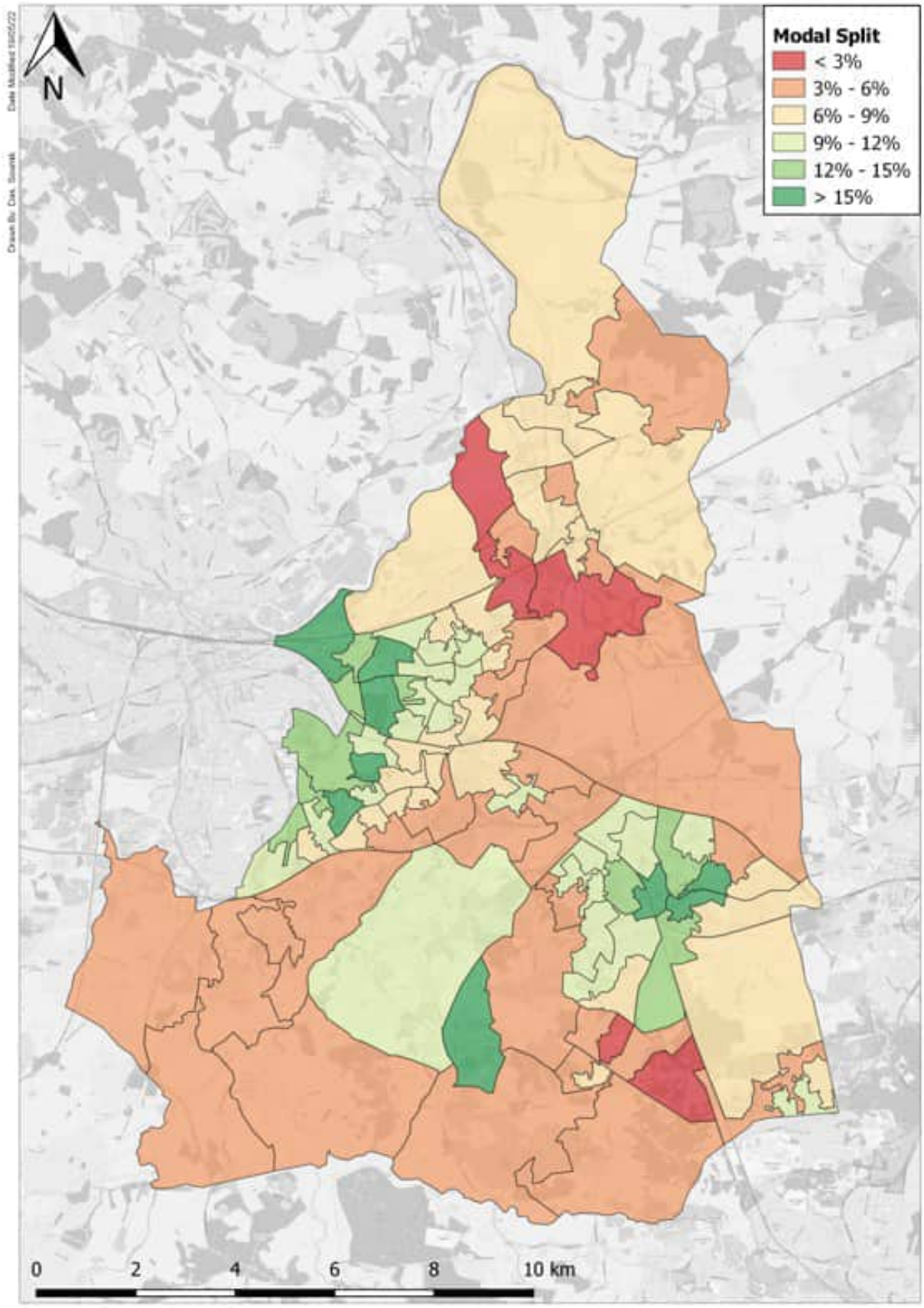
12.1.1. This section details the existing active travel network across the Borough of Wokingham. This includes information on the walking and cycling infrastructure currently available, including Public Rights of Way (PRoW) and level current levels of walking and cycling in the borough.

12.1.2. Active travel directly aligns with the goals of the Climate Emergency Action Plan (CEAP) which includes a target to increase active travel by 10% to assist in reducing carbon emissions. Increased physical activity also helps improve public health and support a shift away from car dependency and foster healthier, more connected communities.

12.2 Activity Levels across the Borough

12.2.1. Figure 12-1 below shows the mode share of walking and cycling across the borough, with green areas representing the highest areas of use/adoption. Although the mode splits are based on commuting trips, it is likely to provide a suitable proxy for other trip purposes, such as education, shopping and leisure. This figure highlights that walking and cycling is more common in town / urban centres such as Wokingham town Centre and Reading facing towns such as Earley, Woodley and Shinfield. Other rural areas and Market Towns in the borough generally have lower walking and cycling levels.

Figure 12-1 - Walking and Cycling Mode Share of Commuter Trips



12.3 Public Rights of Way

12.3.1. Public Rights of Way (PRoW) are areas of land, commonly tracks or path, that allow people to walk, cycle, ride and drive along. PRoW is made up by different types, including, byways open to all traffic, restricted byways, bridleways, footpaths and footpaths with limitations.

12.3.2. There is a network of PRoW across Wokingham Borough which make up a total of 164km, as shown below in Figure 12-2, and accounting for 18% of the total network of highway maintained at public expense (HMPE). The PRoW network consists of 69% public footpaths, 14% byways open to all traffic, 11% bridleways, 5% restricted byways and 1% footpaths with limitations.

Figure 12-2 - Public Rights of Way in Wokingham Borough

Source: Wokingham.gov.uk My Nearest, 2020

12.3.3. The parishes of Wargrave, Finchampstead and Shinfield, with approximately 20 kilometres each, have the greatest amount of PRoW within the area, by comparison Twyford, Charvil, Ruscombe and Sonning have the least (all with less than 5km).

12.3.4. The Borough currently has different plans and strategies to help improve the walking and cycling networks, including the PRoW network. This includes the Public Rights of Way Improvement Plan which was adopted in March 2020. The plan seeks to improve information; create new links and fill in network gaps; increase usage of the network; provide access for all; improve and maintain the network, and plan for future improvements and developments. It also aligns closely with the 10-year Local Cycling and Walking Infrastructure Plan (LCWIP) that the Council is currently finalising in partnership with Reading Borough and West Berkshire councils.

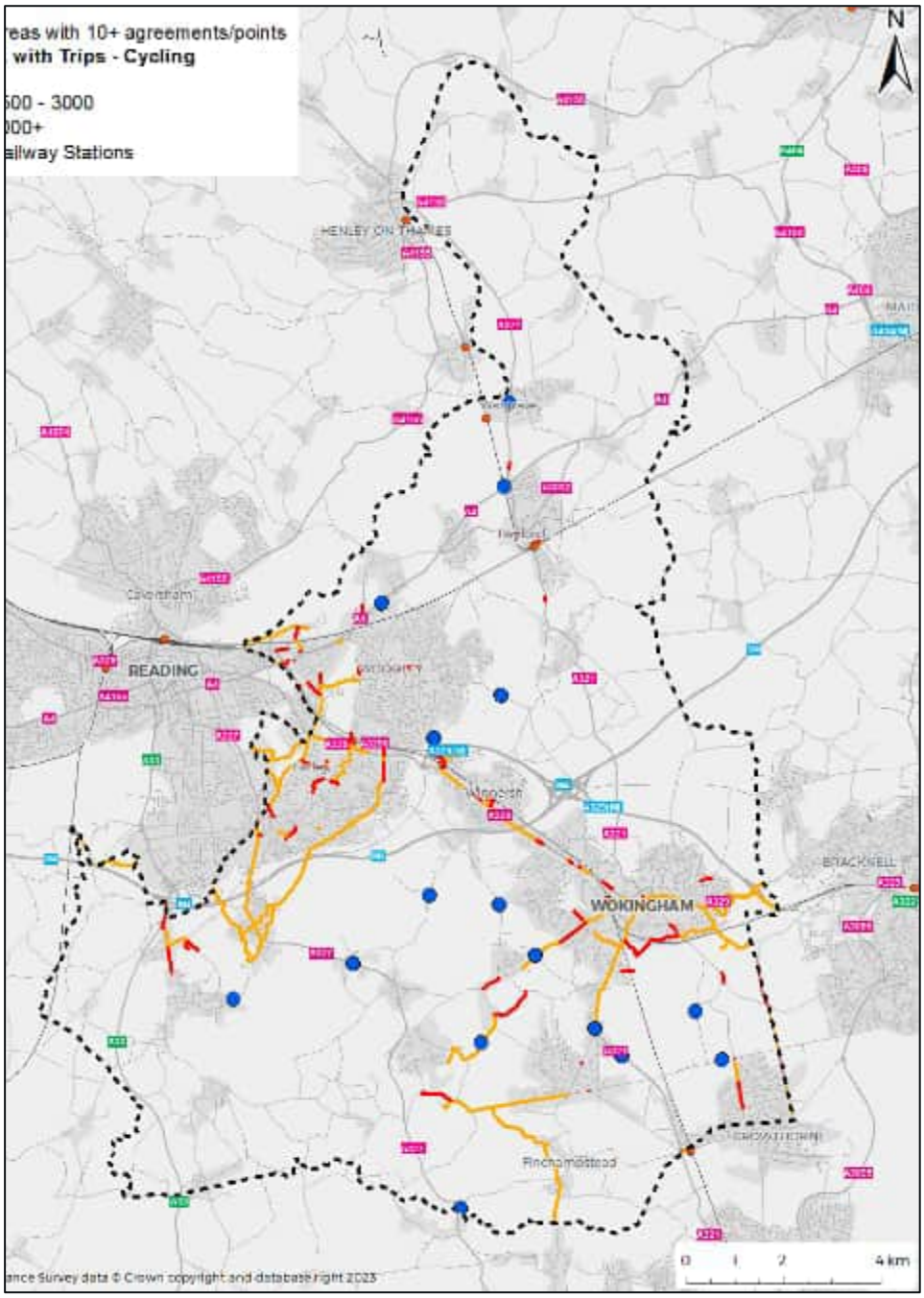
12.4 Walking

12.4.1. Throughout the Borough of Wokingham there are a variety of urban and rural walking routes available which amounts to over 500km of footways available.

12.4.2. In urban areas footways are generally surfaced, well-lit and connected by a range of crossing points. However, the walking infrastructure available in the market towns and more rural parts of the borough is more varied with inconsistent provision of footways, some areas being poorly lit and the travel distances to local services, employment hubs and schools not conducive to walking.

12.4.3. Figure 12-3 below shows a borough wide extent of the most commonly used routes and highest levels of demand. Red represents routes that have a high level of use down to green and blue which have the lowest level of use. The green dots are destinations / walking trip generators within the borough and the pink polygons are major development areas.

Figure 12-3 - Common Walking Routes across Wokingham Borough



12.4.4. Figure 12-3 above shows that Wokingham town Centre and Reading facing towns (Earley, Woodley and Shinfield) having routes with the highest density of walking demand within the borough.

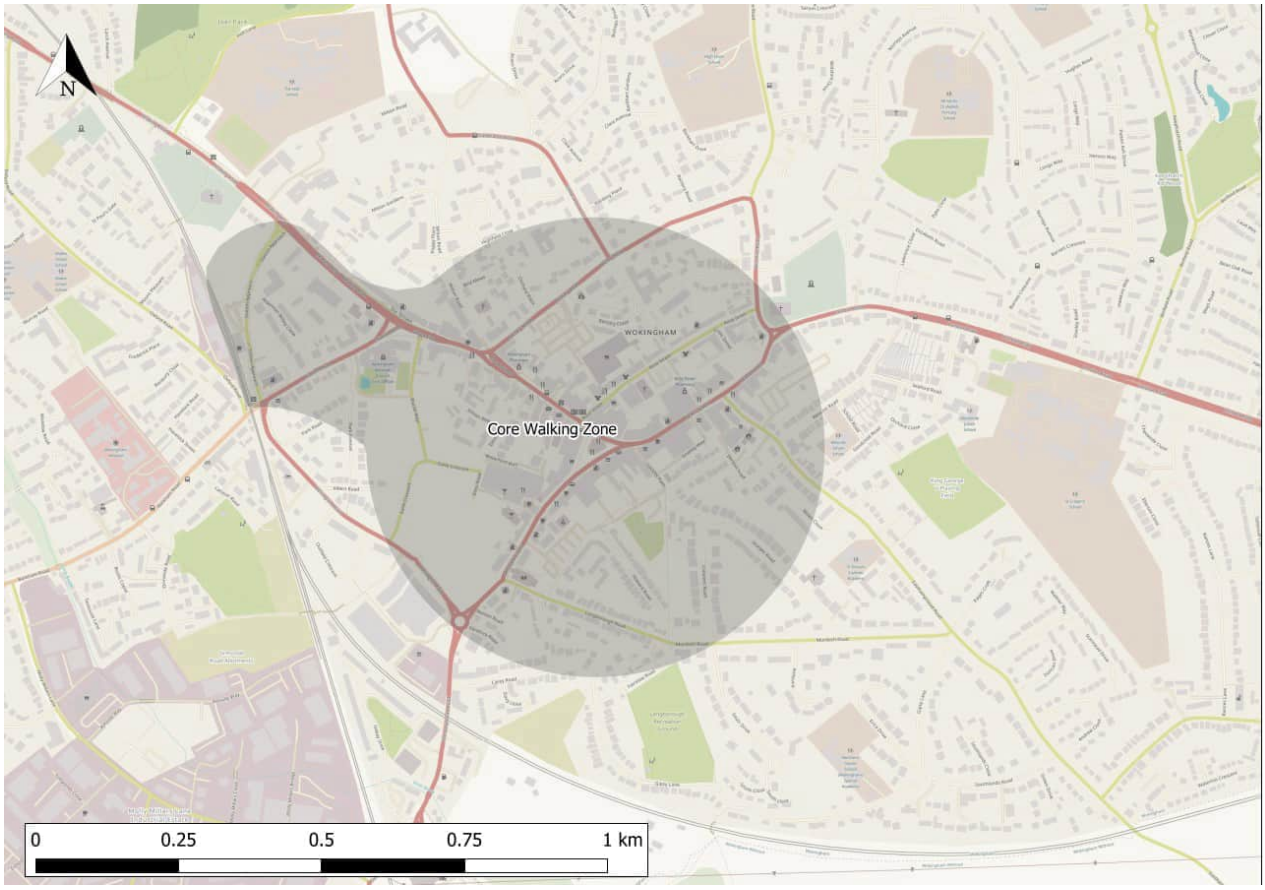
12.4.5. Outside of these areas, smaller market towns such as Twyford and Winnersh have some walking routes evident with a relatively high level of use.

12.4.6. Wokingham Borough Council has developed a Local Walking and Cycling Infrastructure Plan (LCWIP) to identify the priorities for improving walking and cycling facilities within the

borough. As part of this work, Core Walking Zones (CWZs) of approximately 5-minute walking distance from walking trip generators, are identified.

12.4.7. Figure 12-4 below shows the initial core walking zone identified within Wokingham town Centre. This incorporates much of the town centre including Broad Street, Peach Street, Denmark Street, parts of Rectory Road and extends west up Shute end and station road to include Wokingham Rail Station.

Figure 12-4 – LCWIP Core Walking Zone – Wokingham town Centre



12.5 Greenways

12.5.1. Greenways are continuous, generally traffic-free multiuser routes. Wokingham Borough Council aspires to have greenways linking new / existing developments to places of interest / employment. The proposed greenways in Wokingham Borough are detailed below in Table 12-1 and shown below in Figure 12-5.

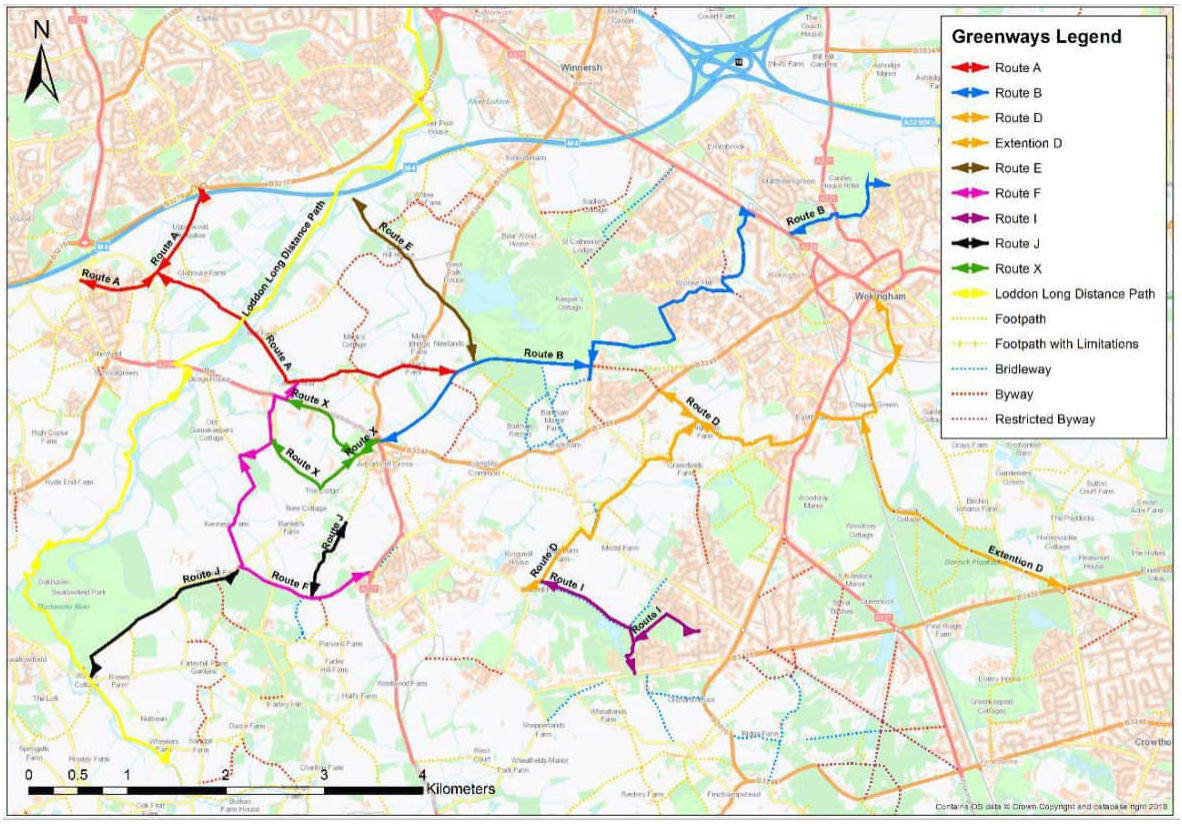
Table 12-1 - Proposed Greenways Network routes

Route	Description	Length (km)
A	South of M4 SDL – Arborfield – Barkham	5.5
B	Arborfield SDL – Barkham – Wokingham	7.6

Route	Description	Length (km)
D	Arborfield SDL – Barkham – South Wokingham SDL – Wokingham	7.0
E	River Loddon – Arborfield	2.1
F	Arborfield – Arborfield SDL	4.0
I	Arborfield SDL – Finchampstead	1.9
J	Arborfield SDL – Blackwater Valley	2.9
K	Arborfield Cross	2.5
LSP	Blackwater Valley Path, Swallowfield to River Thames	30.61

Source: Wokingham Borough Council Greenways Strategy and Project Implementation Plan, 2019

Figure 12-5 - Proposed Wokingham Borough Greenway Routes



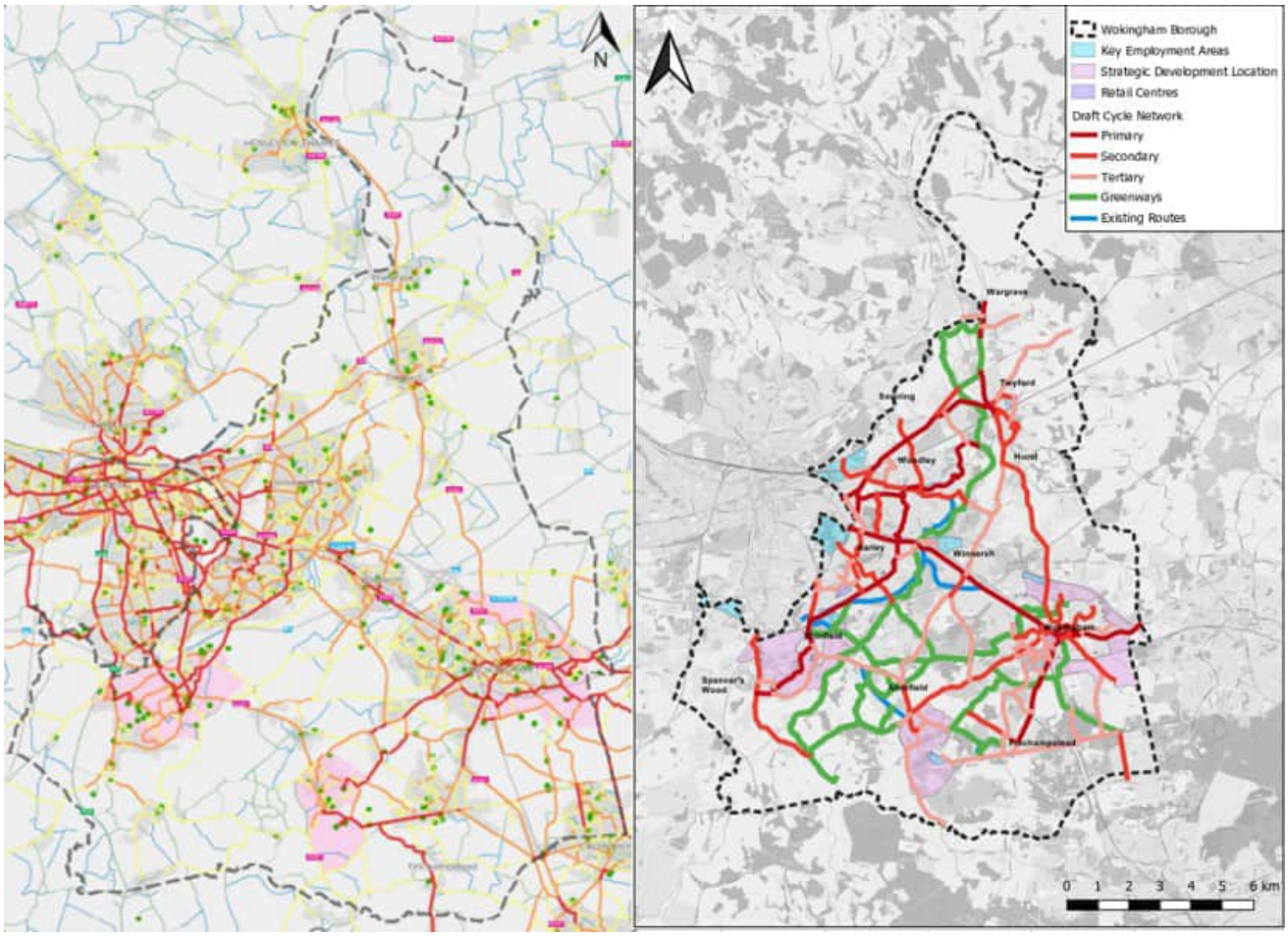
12.6 Cycling

12.6.1. The existing cycle network consists of a mixture of ‘on’ and ‘off’ carriageway facilities. There is one National Cycle Network route that runs through the Borough. National Cycle Network route 4 runs through the heart of the Borough connecting Reading to Maidenhead, broadly following the route of the A4. In addition, work on a proposed National Cycle Network route 422 was completed in 2019 and provides a cross-boundary cycle route linking Newbury,

Reading, Wokingham and Bracknell, the intention was for this to extend to Ascot.. To date this has yet to be formally adopted as an NCN.

12.6.2. Key cycle routes are identified in the LCWIP. Figure 12-6 below shows the existing cycle demand in the borough (left) and the proposed LCWIP network (right). The existing cycle demand is highest in the urban areas of Wokingham town and edge of Reading. The A329 corridor connecting Wokingham – Winnersh – Earley / Woodley – Reading reflects high demand for cycling, as similarly shown with walking. Another high demand corridor is the A321 between Wokingham and Finchampstead, this corridor also branches of to connect to Sandhurst.

Figure 12-6 – Cycle Demand (Left) and LCWIP proposed Cycle Network (right)



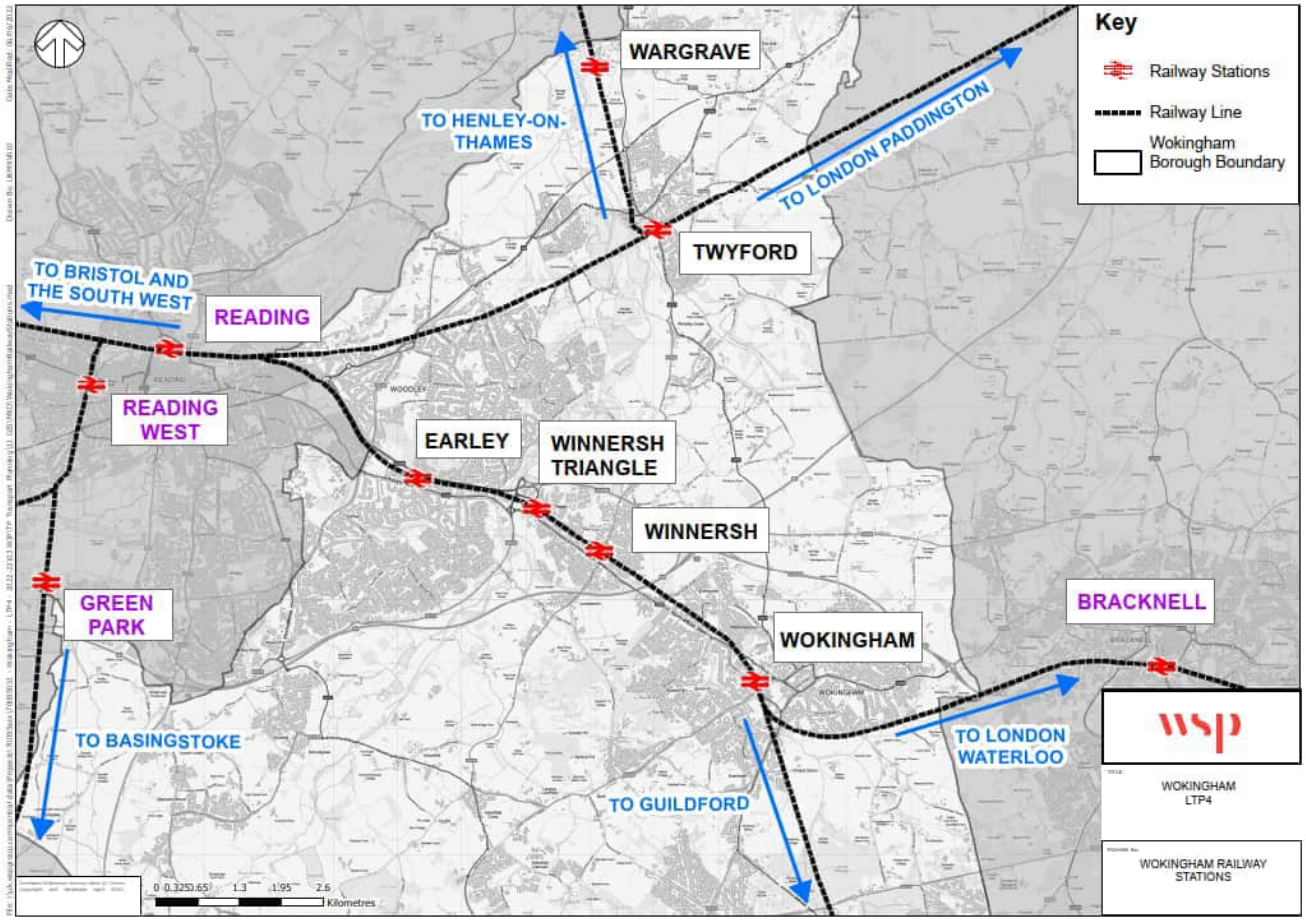
13 Public Transport - Provision and Use

13.1 Rail – Wokingham Borough

13.1.1. Wokingham Borough is well connected by rail with six stations located within the borough. These are Wargrave, Twyford, Earley, Winnersh Triangle, Winnersh and Wokingham.

13.1.2. Figure 13-1 shows the location of each railway station in the borough (black text) as well as local stations outside of the borough (purple text). The figure also shows the onward connection that each railway line provides (blue text). Twyford is located on the Great Western Main Line to London Paddington. Wargrave is located on the branch line between Henley-on-Thames and Twyford. There are three stations located on the line between Reading and Wokingham with services running to London Waterloo and Guildford. Bracknell is located outside of the borough on the London Waterloo line. Reading West and Green Park Station are located outside of the borough on the Basingstoke line. Reading station provides and interchange to services to Bristol and the South West as well as the rest of the country. A new station at Green Park opened in 2023.

Figure 13-1 - Railway Stations in Wokingham Borough



Wokingham Station

13.1.3. Wokingham sits on the South Western Line between Reading and London Waterloo. This service runs every 30minutes each day, with additional trains provided during the weekday peak times. Journey times between Wokingham and London Waterloo are usually between 65-75 minutes. Journey times between Wokingham and Reading are typically 10-15minutes.

13.1.4. Wokingham also lies on the North Downs Line between Reading, Guildford and Gatwick Airport. During off peak periods there are two trains an hour, one calling at most stations and one limited stop service. A number of extra slow services are provided during the peak period at irregular intervals. Journey times between Wokingham and Guildford are around 30-40 minutes and to Gatwick Airport are around 70-80 minutes. Services on the North Downs line are formed of two or three coaches due to rolling stock and platform length issues at stations along the line and subsequently often suffer from overcrowding during peak periods. Crowthorne Station is the next station south of Wokingham and is well-used by residents in the south of the borough.

13.1.5. As detailed in the Network Rail Wessex Route Strategic Plan 2019 to 2027, there is an aspiration to increase the service frequency on the North Downs line from two trains per hour to three trains per hour, as well as introduce new rolling stock. The proposal is currently under consideration, but it would need to be accompanied by level crossing safety improvements as well as performance modelling across impacted route areas.

Twyford Station

13.1.6. Twyford is located on the GWR main line. This provides a direct service to London Paddington. London is one of the key employment destinations outside of the borough. Journey times between Twyford and London Paddington vary between 20-50 minutes.

13.1.7. Twyford is also served by trains on the newly opened Elizabeth Line (Crossrail) that is operated by Transport for London (TfL) and runs from Reading into London with direct links to Stratford, Abbey Wood, Docklands and Shenfield. In addition, these services will also serve the proposed Old Oak Common station on the HS2 line being built between London, Birmingham and the North.

13.1.8. In addition to its London to Reading services, Twyford is also served by GWR branch line trains providing a half hourly link between Twyford, Wargrave, Shiplake and Henley-on-Thames.

13.1.9. Twyford is served by up to eight trains an hour during weekday peak periods and four trains an hour during weekday off peak periods. London Services have various calling patterns with the TfL Elizabeth Line service being a slower

service that stops are most stations. The GWR service has limited stops and is subsequently a faster service to London.

13.1.10. In the last two years, new electric trains have replaced almost all services from Twyford to London. Electric trains provide additional seating capacity compared to traditional diesel trains, which helps to address issues of overcrowding on services.

Earley Station

13.1.11. Earley is located on the South Western Railway line between Reading and London Waterloo, which also passes through Wokingham. This provides a half-hourly service during off peak and weekends, additional trains run during the weekday peak hours. The journey time is approximately 80 minutes to London Waterloo and calls at multiple stations including Winnersh Triangle, Winnersh and Wokingham. The journey time to Wokingham is approximately 8 minutes.

13.1.12. GWR trains running between Reading and Gatwick Airport via Guildford pass through the station without stopping.

Winnersh Triangle Station

13.1.13. Similarly with Earley, Winnersh Triangle is located on the South Western Railway line between Reading and London Waterloo. Up to four trains run per hour during peak periods, this reduces to two trains during the off-peak period and on Sunday's.

13.1.14. The journey time to Wokingham is approximately 6minutes.

Winnersh Station

13.1.15. Similarly with Earley and Winnersh Triangle, Winnersh is located on the South Western Railway line between Reading and London Waterloo. Services run every 30 minutes with additional trains during peak weekday times. The journey time to Wokingham is approximately 4 minutes.

13.1.16. The station is also located on the North Downs Line between Gatwick Airport and Reading via Guildford. GWR provides one service per hour in each direction on this line.

13.2 Rail – Reading and Bracknell

Reading

13.2.1. Reading railway station, located in the town centre, is a key interchange hub in the south and the second busiest interchange outside of London. The station is managed by Network Rail and is served by Great Western Railway, CrossCountry, TfL and South Western Railway.

13.2.2. The station sits on the GWR Main Line which connects Bristol Temple Meads to the west and London Paddington to the east. Services from the GWR Main Line also connect to the South Wales Main Line which enables connectivity to Newport, Cardiff and Swansea. Services from the GWR Main Line also connect onto the Bristol to Exeter Line which enables an onward connection from Reading to the West Country. To the west of the station is the Reading to Taunton Line which enables Reading to be connected to Taunton and onwards into Cornwall. Services from Reading also run to the north including Birmingham, Newcastle and Manchester and to the south including Bournemouth and Southampton.

13.2.3. The TfL Elizabeth Line opened in May 2022 and provides a regular connection into London Paddington. This is a slightly slower service the GWR service to London Paddington as it calls at more stations. The opening of the Elizabeth Line will provide greater capacity to travel to London Paddington from Reading.

13.2.4. CrossCountry services connect Reading to the North, including Manchester Piccadilly, and to the South, including Bournemouth.

13.2.5. South Western Rail services operate between Reading and London Waterloo and call at Wokingham and the other local railway stations within the borough as discussed above.

13.2.6. Green Park Railway Station is currently under construction in the south of Reading and sits on the Basingstoke to Reading line. The construction of this station is aimed to serve and improve connectivity for the Green Park business area, Reading FC stadium as well as the proposed development of the Green Park residential development.

Bracknell

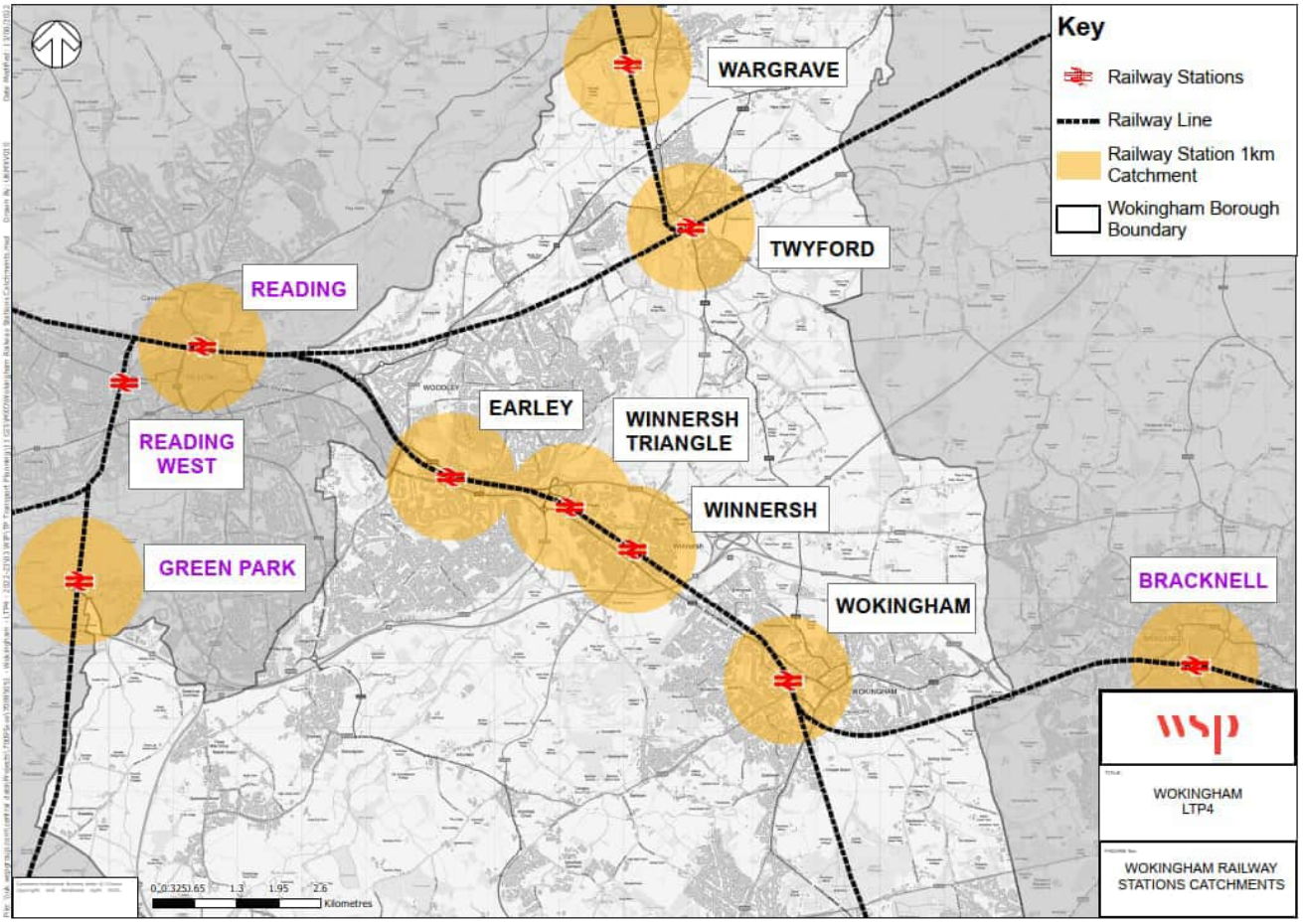
13.2.7. Bracknell is located to the southeast of Wokingham and has a population of approximately 85,000. The railway station is located in the centre of the town. The station is located on the Reading to London Waterloo Line. Both the station and the train services are operated by South Western Railway.

13.2.8. Trains that run through Bracknell connect Reading in the northwest and London Waterloo to the east. These services stop at Bracknell station approximately every 30 minutes. The journey time to Reading is approximately 20 minutes and the journey time to London Waterloo is approximately 60 minutes. The journey time to Wokingham is approximately 7minutes.

13.3 Railway Station Catchments

13.3.1. Wokingham Railway Station is the largest station within the borough and is located within the town centre, therefore there is a large catchment that fall within a 1km radius of the station. Subsequently, it has the largest patronage level out of all six stations within the borough. Figure 13-2 below shows the 1km catchment for each station. This highlights the areas that fall within walking distance of each station.

Figure 13-2 - 1km Railway Station Catchments



13.3.2. Figure 13-2 above shows the 1km catchment of all six stations within Wokingham and the three key stations that are local to Wokingham. This shows that the six railway stations within Wokingham give relatively good coverage across the borough, including in the rural areas in the north. Green Park Station is also key as it has the potential to provide the rail connectivity to more rural communities in the south / southwest of the borough, notably Three Cross Miles, Spencer's Wood and Shinfield. Outside of the borough, Bracknell and Reading are key employment destinations so rail can have a key role to supporting employment related trips.

13.3.3. **Railway Station Patronage**

13.3.4. Table 13-1 below shows the patronage levels for six railway stations in the borough and the local external stations. Due to the impact of the COVID-19 pandemic on public transport usage, data from 2020/21 shows a sudden dip in patronage, although additional comment on this is provided below. The green text indicates an increase in patronage levels from the previous year, red indicates a reduction.

Table 13-1 – Rail Patronage Levels for Rail Stations across Wokingham Borough and Reading Station and Bracknell Station

Railway Station Name	2010/2011 Patronage Levels	2014/2015 Patronage Levels	2018/2019 Patronage Levels	2021/2022 Patronage Levels	% Change 2010/11-2018/19	% Change 2010/11 – 2021/2022
Winnersh Triangle	0.32 million	0.491 million	0.402 million	0.121 million	**25.6%**	**-62.3%**
Twyford	1.233 million	1.369 million	1.508 million	0.801 million	**20.3%**	**-35.0%**
Wokingham	2.098 million	2.345 million	2.465 million	1.281 million	**17.5%**	**-38.9%**
Winnersh	0.442 million	0.521 million	0.513 million	0.262 million	**16.1%**	**-40.7%**
Earley	0.531 million	0.64 million	0.609 million	0.28 million	**14.7%**	**-47.3%**
Wargrave	78,180	95,910	87,760	40,916	**12.3%**	**-47.7%**
Reading	14.4 million	16.34 million	17.081 million	8.818 million	**18.6%**	**-38.8%**
Bracknell	1.977 million	2.315 million	2.328 million	1.191 million	**17.8%**	**-39.8%**

Source: Office for Rail and Road, Table 1415

13.3.5. The table above shows that overall, across the borough, rail patronage has decreased by approximately 46% from 2010/11 to 2021/22. The strict lockdown measures, travel restrictions, and work-from-home policies implemented to curb the spread of the virus have resulted in a sharp decline in the number of people using trains for commuting and leisure purposes. Winnersh Triangle Railway Station has seen the greatest decrease in patronage levels of 62.3% compared to patronage levels of 2010/11.

13.3.6. Also, From the above table it is evident that, across the borough, rail patronage has increased by approximately 20% from 2010/11 to 2018/19. Wokingham

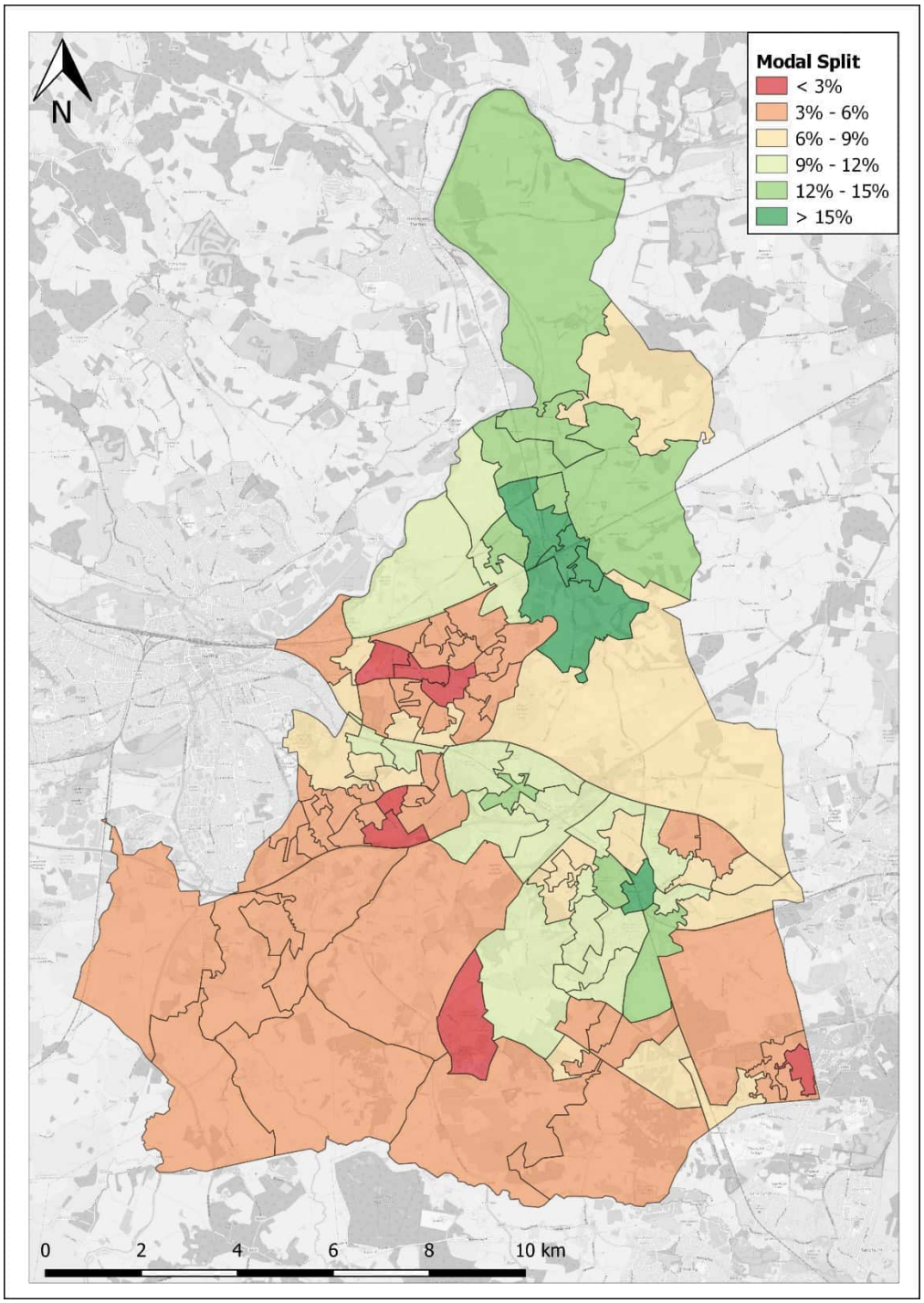
Station has the highest patronage level throughout the borough across the timeframe. However, the largest increase in patronage levels between 2010/11-2018/19 is at Winnersh Triangle at 25.6%. It is worth noting that the growth is relative to the size of the train station. Wargrave has seen the smallest growth in patronage at 12.3%. Outside of Wokingham Borough, Reading Railway Station has seen the greatest increase in patronage levels at 18.6% between 2010/11-2018/19.

13.4 Travel to Work Data

13.4.1. To gain a better understanding of how people travel to work throughout different parts of the borough, census data for the different wards have been assessed. This was to see how many people travelled to work within the town, within the borough and then to other areas outside of the borough such as Bracknell, Reading and London and by which mode of transport.

13.4.2. Figure 13-3 below shows the modal split for rail for each of the MSOAs in Wokingham Borough. This shows that most of the borough has a less than 9% mode share with rail. It also shows that Twyford has the highest rail mode share. This is likely to be reflective of the high level of service that is available at Twyford Station to London Paddington and other parts of central London.

Figure 13-3 - Rail Mode Split Across Wokingham Borough



13.4.3. In terms of mode choice for commuting, when travelling to London, public transport was generally the most common mode choice, with approximately 40-50% travelling to work via train. This compares to only 23% of trips to Reading being made by rail of those that work in that area. Only 5% of commuter trips to Bracknell are made by rail despite there being trains running between Wokingham and Bracknell every 30 minutes.

13.5 Railway Station Sustainable Mobility Plans

13.5.1. Wokingham Borough Council (WBC) and South Western Railway (SWR) have worked together to produce 'Sustainable Mobility Plans' for all SWR managed stations within the borough. These are: Wokingham, Winnersh, Winnersh Triangle and Earley Railway Station.

13.5.2. The plans set out a five-year plan for collaborative delivery between WBC and the rail operator to improve sustainable travel to and from the stations. They also give more detail on the desired mode share targets for sustainable modes, a description of the measures required to achieve these targets and associated timeframes. Table 13-2 below summaries the key areas for improvement identified within the railway station mobility plans.

Table 13-2 – Summary of Areas for Improvement in Railway Station Mobility Plans

Station	Areas for Improvements
Wokingham	Lack of dedicated cycle route to station Lack of secure cycle parking at the station. Lack of morning, evening and weekend bus services. Either seek to improve co-ordination of bus and rail services and/or provide shared mobility choices Lack of Electric vehicle charging points, consider phased introduction of charge points to reflect increasing demand.
Winnersh	Quality of pedestrian and cycle infrastructure in/around station. Limited cycle parking - part-sheltered and unsecured. Lack of early morning and late evening bus services. No car park at the station and limited interchange choices. Seek to formalise taxi rank and/or provide shared mobility choices.
Winnersh Triangle	Long pedestrian and cycle waiting times to cross Wharfedale Road. Minimal cycle parking provision. Not accessible by wheelchair and concern about user security. Seek to improve dropped kerbs, tactile paving, lighting and surveillance along Cavendish Gardens. No bus stop shelters, shared mobility or demand responsive bus services. Consider improving interchange between rail and the park and ride services. Low car parking prices. Consider adjusting and introducing a phased increase of electric vehicle spaces in response to growing demand.

Station	Areas for Improvements
Earley	Poor pedestrian facilities on Station Road. Consider improving to making walking more appealing in the local area. Consider improving security of cycle parking. Low bus frequencies and no shared mobility options. Consider introducing micro/ shared mobility options and/or coordinating bus and rail services. No electric vehicle charge point provision.

13.5.3. Twyford station on the GWR line has also been the subject of accessibility studies and its significance has increased due to opening of the Elizabeth Line. There is poor bus interchanging with no space or facilities for buses and passengers to wait. Car parking has restricted supply and car passengers identified buses as having the greatest potential as an alternative to the car. Barriers for bus use are poor frequencies, no buses from Woodley and uncertainty of where to catch a bus.

13.6 Buses & Coaches

13.6.1. There are several commercial routes delivered by Reading Transport Limited (which includes Reading Buses and Thames Valley Buses). The borough endeavours to reduce congestion on these routes and work closely with the operator to provide attractive services. The Council does not provide vehicles and has limited influence on commercial operators' use of vehicles.

13.6.2. The Council has an important role in delivering bus services as many services require subsidies to be operational Service contracts for supported services are an important means of provision of services and are an opportunity to ensure services are of high quality in terms of safety, passenger environment and environmental sustainability.

13.6.3. The dominant operators are Reading Buses and Thames Valley Buses, who are the same company. So, while this has advantages in terms of coordination of routes and fares, there is limited direct competition. Coach services also deliver some of the routes.

13.6.4. Bus operations in the Borough can be split into three groups: Key corridors, urban areas and rural low-density areas. These are considered below:

Key Corridors:

13.6.5. **A329** – the main east-west corridor through the Borough which connects Wokingham Town, Winnersh and Earley to Reading and Bracknell. The corridor follows the London Waterloo rail line and provides connections to local stations.

There are also several secondary schools and the route is branded with Reading Buses “Lion”.

13.6.6. **A329(M)** – accommodates the park and ride service from Winnersh Triangle Business Park to Reading Town Centre. It includes an existing bus lane and priority on the approach to Sutton Business Park. The services are branded with the Park and Ride livery. The Park & Ride bus service has yet to return following expansion of the site.

13.6.7. **A327** – connects Wokingham Town to Reading Town via the communities of Barkham, Finchampstead, Arborfield and Shinfield. The corridor is currently being enhanced to better service new development at Shinfield, Arborfield and Thames Valley Science Park. The corridor is branded with Reading Buses “Leopard”.

13.6.8. **A33/ B3349** –.Currently bus services connect Reading Town Centre, with Thames Valley Science Park and Spencers Wood, as well as to the more rural villages of Swallowfield and Riseley. The busiest sections of the corridor are between Spencers Wood and Reading Town Centre. This corridor was remodelled in 2021 to extend the 600 services from Mereoak Park and Ride and corridor has the potential for growth due to development in the Shinfield area.

13.6.9. **A4/A321** –between Reading Town Centre and High Wycombe linking the communities of Woodley, Sonning, Charvil, Twyford and Wargrave. Thames Valley Business Park and Sutton Business Park are also located along this corridor. Twyford Station with the improved Elizabeth line and Wargrave station with the Henley branch service are served by local bus services. There is no uniform branding on this corridor.

Urban Areas:

13.6.10. There are three main urban areas in Wokingham Borough with town services.

13.6.11. **Earley/ Lower Earley/ Maiden Erleigh** is a large residential area with a high proportion of family homes and range of local services including a secondary school, primary schools, shops, doctors’ surgeries, and a supermarket. There are significant numbers of secondary age students using bus services to access schools in Reading, along the A3290 and in Woodley. The area is branded with Reading Buses “Claret” Service.

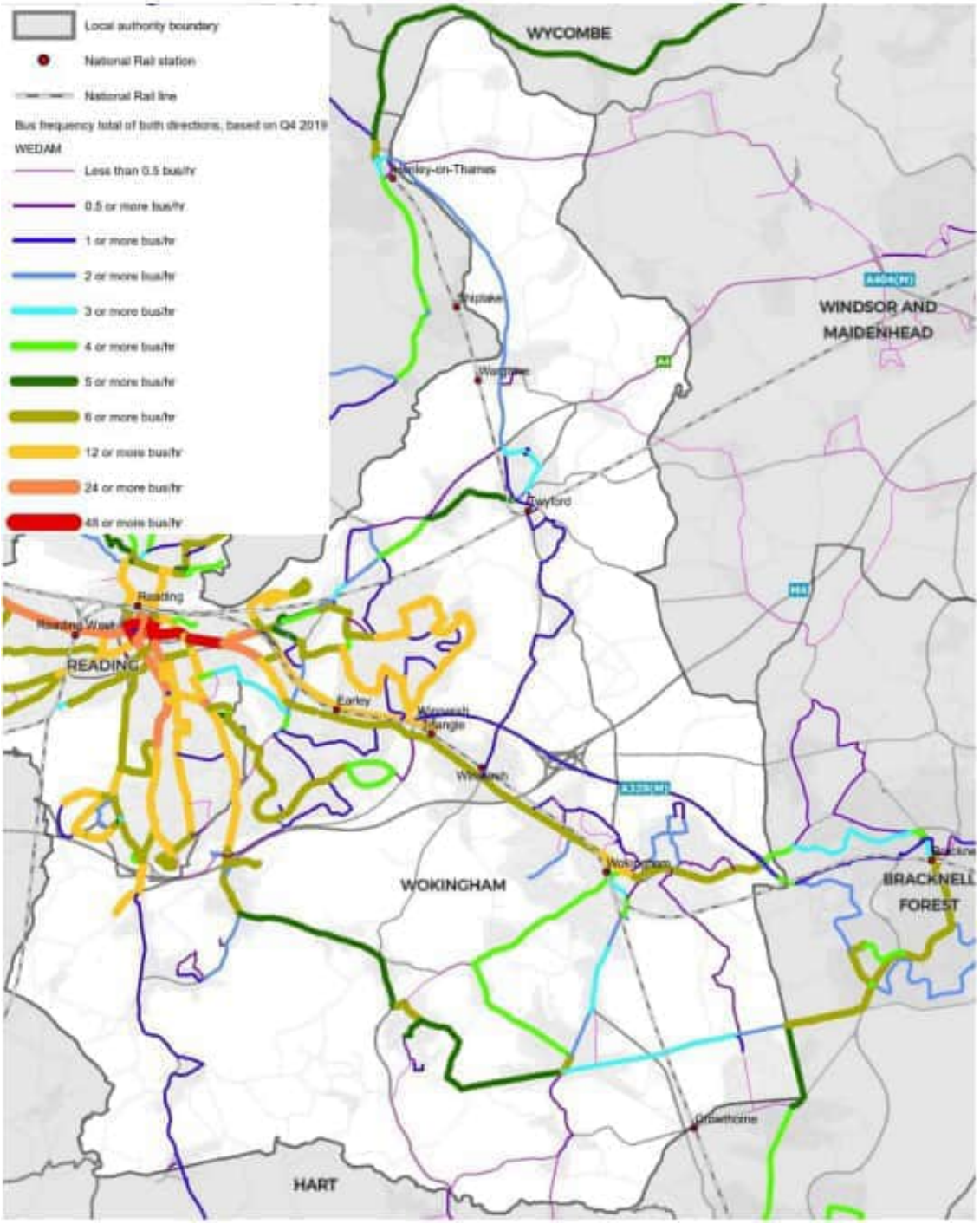
13.6.12. **Woodley and North Earley** – Woodley town centre has a good range of shops and is the main interchange for local bus services. Local bus services serve the surrounding residential areas with local orbital bus services. There are several primary schools and doctors’ surgeries in the town. The area is branded with Reading Buses “Orange” brand.

Wokingham town and surrounding areas. The A329 and A327 corridors serve the town centre and the recently regenerated Wokingham Station. Local link bus services provide access from the surrounding communities of Emmbrook, Woosehill, the Norreys Estate, Easthampstead, Finchampstead and Barkham. There are also the areas of new development to the north and south of the Town along with a new park and ride site (Coppid Beech) on the east of the town, bordering Bracknell Forest Borough.

13.6.13. Rural and lower density areas are located to the north, south and east of the borough. The provision of rural area services is a challenge as serving a small, sparse population with very high levels of car ownership leads to low levels of patronage and high operating costs.

13.6.14. Figure 13-4 below shows the frequency of buses along the bus routes within the borough during the AM peak (07:00-09:00). This shows that along routes within Wokingham town Centre and the Reading facing towns (Earley, Woodley and Shinfield) services run at a relatively high frequency with 6 or more buses an hour. Outside of these areas this rapidly falls to much lower frequency services with up to a maximum of four buses per hour and this decreases to 1 bus per hour connecting the most rural areas.

Figure 13-4 - Bus Frequency Map - AM Peak (07:00-09:00)



Frequencies on key corridors vary based on time of day and the day of the week and are summarised on Table 13-4. Turn up and go frequencies are in place on the A327 and A4 corridors on their busiest sections. Frequencies reduce as the routes serve less dense areas to the east. The A329 corridor frequency is 3 buses an hour throughout the day, reduced in 2021 from 4 per hour. Evening and Sunday services are provided in part on all key corridors.

Table 13-3 - Key Corridors – Local Bus Frequencies (buses per hour)

Corridor	Routes	Destination	Peak (M-Fri)	Off Peak (M-Fri)	Sat	Evening (M-Fri)	Sun
A329 Reading Wokingham - Winnersh- Bracknell	4, X4	Wokingham	3	3	3	1	2
A329 Reading Wokingham - Winnersh- Bracknell	4, X4	Winnersh	3	3	3	1	2
A327 Reading-Shinfield-Arborfield - Wokingham	3	Shinfield	6	5	5	2	2
A327 Reading-Shinfield-Arborfield - Wokingham	3	Arborfield	4	3	3	2	2
A327 Reading-Shinfield-Arborfield - Wokingham	3	Wokingham	1	1	1	0	0
A4/A321 Reading-Twyford-Wargrave-Henley	13/14 128/129/127, 850	London Rd	6	6	6	2	2
A4/A321 Reading-Twyford-Wargrave-Henley	13/14 128/129/127, 850	Twyford	2	2	2	1	0
A4/A321 Reading-Twyford-Wargrave-Henley	13/14 128/129/127, 850	Wargrave	1	1	1	1	0

Corridor	Routes	Destination	Peak (M-Fri)	Off Peak (M-Fri)	Sat	Evening (M-Fri)	Sun
A4/A321 Reading-Twyford-Wargrave-Henley	13/14 128/129/127, 850	Henley	1	1	1	1	0
A329 (M) Winnersh- Reading	500	Reading	Service withdrawn until mid-2023, when work is completed on P & R	Service withdrawn until mid-2023, when work is completed on P & R	Service withdrawn until mid-2023, when work is completed on P & R	Service withdrawn until mid-2023, when work is completed on P & R	Service withdrawn until mid-2023, when work is completed on P & R
A33/B3349	600	Mereoak P & R	2	2	2	2	0
A33/B3349	600	Spencers Wood, Shinfield Swallowfield & Riseley	1	1	1	1	0

13.6.15. The main urban areas have a higher frequency urban corridor service which are complemented by less frequent local urban link services. Table 14-5 summarises the service levels by bus per hour.

13.6.16. Earley and Reading the 21 provides a constant 3 buses per hour frequency into Reading, increasing in frequency at Reading University which lies on the Reading / Wokingham boundary. The 19a/b/c local link services provide local access from residential areas to local amenities and the Royal Berkshire Hospital. Resident feedback is that the direct link to the hospital is welcomed, but more frequent and direct services to Reading and Wokingham towns are desirable. Pre-pandemic monitoring of vehicle capacity during the morning travel period indicated that all services running out of Earley were at or over capacity. In some cases, passengers were unable to board the service they wanted.

13.6.17. In Woodley the 13/14 circular services provide the main services into Reading on a half hourly frequency in each direction. The 13/14s are complemented by the Thames Valley Buses 128 service and the circular 19a/c services from Woodley Centre to Reading creating a 15-minute frequency.

13.6.18. Selected parts of south and east Woodley experience a 20-minute frequency towards Reading and Woodley Centre through a combination of 13/14 and 19a/c services. More remote residential areas experience less frequent local bus services provided solely by the 19a/c bus service.

Table 13-4 - Urban Areas – Local Bus Frequencies (buses per hour)

Urban Area	Routes	Area	Peak (M-Fri)	Off Peak (M-Fri)	Sat	Evening (M-Fri)	Sun
Earley/Lower Earley /Maiden Erleigh	21	Earley	4	4	4	2	3
Earley/Lower Earley /Maiden Erleigh	19a/c,	Maider Erleigh	2	2	2	0	0
Earley/Lower Earley /Maiden Erleigh	19b	Lower Earley	1	1	1	0	0
Woodley and North Earley	19a/c	North Earley	2	2	2	0	0

Urban Area	Routes	Area	Peak (M-Fri)	Off Peak (M-Fri)	Sat	Evening (M-Fri)	Sun
Woodley and North Earley	13/14 19a/c 128/127	Woodley Centre	7	7	7	2	2
Woodley and North Earley	13/14 19a/c	East Woodley	6	6	6	0	0
Woodley and North Earley	13/14 19a/c	South Woodley	6	6	6	0	0
Wokingham Town Centre and Surrounding Area	4/X4, 3 121, 122/3 124, 128/127/ 128, 151/A	Wokingham Town Centre	9	12	10	3	3
Wokingham Town Centre and Surrounding Area	121,151/A	North Wokingham	3	2	02-Jan	0	0
Wokingham Town Centre and Surrounding Area	124	South Wokingham	0	1per day	0	0	0
Wokingham Town Centre and Surrounding Area	125/A/B	Finchampstead	1	1 every 2 hours	1 per day	0	0
Wokingham Town Centre and Surrounding Area	3	Barkham	1	1	1	0	0
Wokingham Town Centre and Surrounding Area	122/3	Woosehill and Emmbrook	1	1	1	0	0

13.6.19. Local bus services along the A329 and A327 corridors travel into Wokingham town. Several local town link services provide access from surrounding residential areas into the Town Centre (Wokingham Broad Street) where they connect with the higher frequency services. Generally, the frequency of services from surrounding residential areas into Wokingham town is low, as in many

cases, but not all, the bus competes with alternative travel choices such as walking and cycling.

13.6.20. Evening and Sunday services are only provided on the urban corridor routes which are provided through each of the urban areas.

13.6.21. Frequencies in low density and rural areas are generally reduced and are summarised on Table 13-5 below. The frequency of fixed line rural services is reflective of the lower populations living in these areas. Community transport providers and volunteer driver services operate across all the rural and low-density areas and facilitate travel for those without access to any alternative transport.

13.6.22. Apart from the rural corridor service which runs between Reading Town Centre and Riseley, no fixed route local bus services are provided during evenings or at weekends.

Table 13-5 - Rural / Low Density Areas – Local Bus Frequencies

Urban Area	Routes	Area	Peak (M-Fri)	Off Peak (M-Fri)	Sat	Evening	Sun
Northern Parishes	152, 127	Wargrave	0	1 / week	1	0	0
Northern Parishes	127	Remenham	0	0	1	0	0
Northern Parishes	128, 127	Sonning	1	1	1	0	0
Northern Parishes	850, 128	Charvil	2	2	2	1	0
Southern Parishees	600, 145	Spencers Wood	1	1	1	1	0
Southern Parishees	600, 145	Swallowfield	1	1	1	1	0
Southern Parishees	600, 145	Riseley	1	1	1	1	0
Southern Parishees	145	Finchampstead Village	0	1 / week	0	0	0
Southern Parishees	125/A/B	Wokingham Without	2	0.5	1 day	0	0

Urban Area	Routes	Area	Peak (M-Fri)	Off Peak (M-Fri)	Sat	Evening	Sun
Eastern Parishes	128 in part	Hurst	1	1	1	0	0
Eastern Parishes	127	Ruscombe	0	0	1	0	0

13.6.23. In terms for vehicles, Reading Buses lead the way with one of the youngest and most environmentally friendly fleets in the UK. 100% of the Reading Buses fleet is rated Euro 6 or ultra-low emission due to the reduced CO2 emissions that bio-gas buses produce compared to a normal diesel bus.

13.6.24. In regard to longer distance coach travel, National Express are they main coach provider in Wokingham Borough. National Express provide regular coach services to Brighton, London, Gatwick Airport, Heathrow Airport, the South West and South Wales from the Mereoak Park and Ride site. This is located just to the south of the M4 Junction 11.

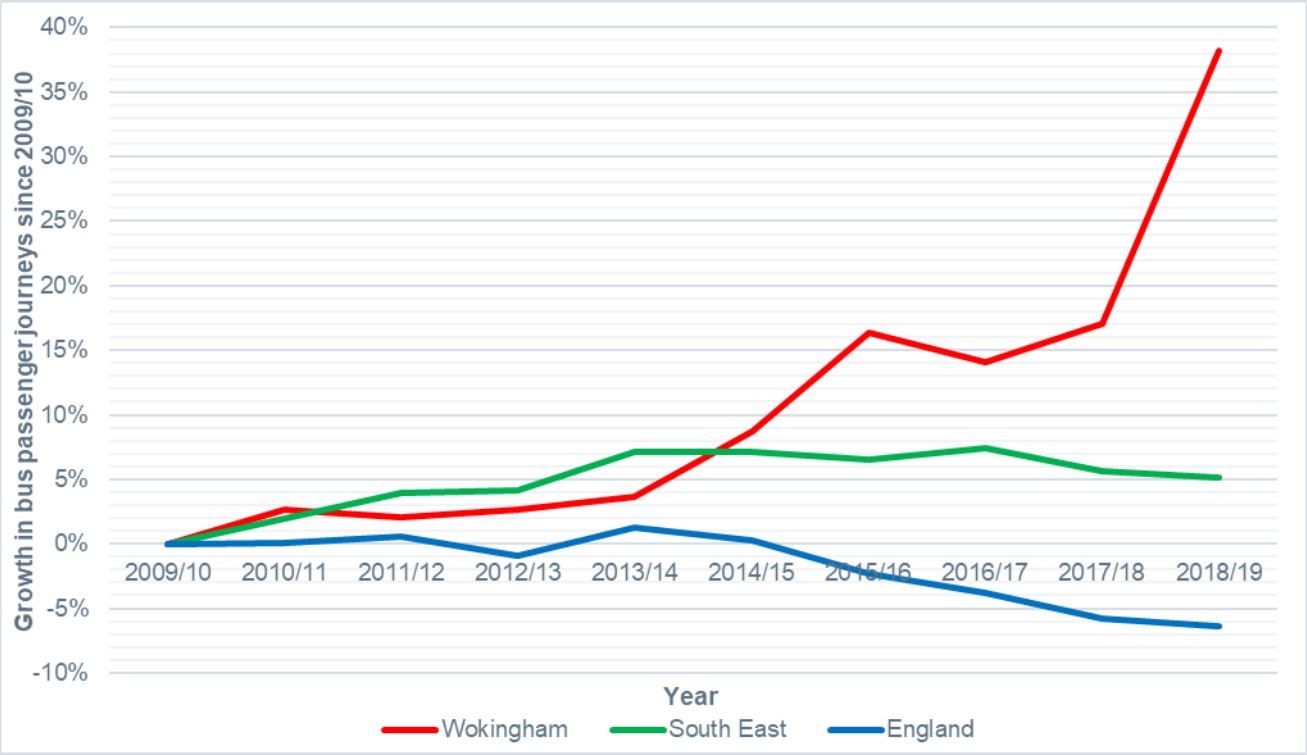
13.6.25. A Bus Service Improvement Plan 2 (BSIP2) was published in January 2023 which contains extensive details on bus operations and how these can be improved. An Enhanced Partnership is being set up with the operators that aims to bring the operators and borough closer together in delivering improved services.

13.7 Buses – Usage

13.7.1. Based on the DfT Local Bus Passenger Journey data, there has been a general increase in bus patronage over time within Wokingham Borough. This particularly evident when comparing this change to both the national and regional change in bus patronage. Figure 13-5 below shows that since 2013/14, there has been a relatively steep increase in bus patronage numbers in Wokingham Borough. This compares to a slight downward trend in the national and regional bus patronage numbers. Before 2013/14, Wokingham Borough was generally in line with the national and regional trends in that there is a steady increase in usage over time.

13.7.2. Table 13-4 shows that data that feeds into Figure 13-5 below. Green text indicates in increase in patronage levels from the previous year, red indicates a reduction.

Figure 13-5 - Percentage change in bus passenger journeys since 2009/10



Source: DfT Local Bus Passenger Journeys 2019 (BUS0109a)

Table 13-6 - Change in Bus Patronage – 2009/2010 – 2017/2018

Location	2009/2010 Patronage Levels	2011/2012 Patronage Levels	2013/ 2014 Patronage Levels	2015/2016 Patronage Levels	2017/2018 Patronage Levels	% Change 2010/11 – 2018/19
Wokingham	2.050 million	2.092 million	2.124 million	2.386 million	2.399 million	17.0%
South East	331.7 million	344.7 million	355.3 million	353.2 million	349.1 million	5.2%
England	4611.4 million	4638.0 million	4670.1 million	4507.5 million	4348.1 million	5.7%

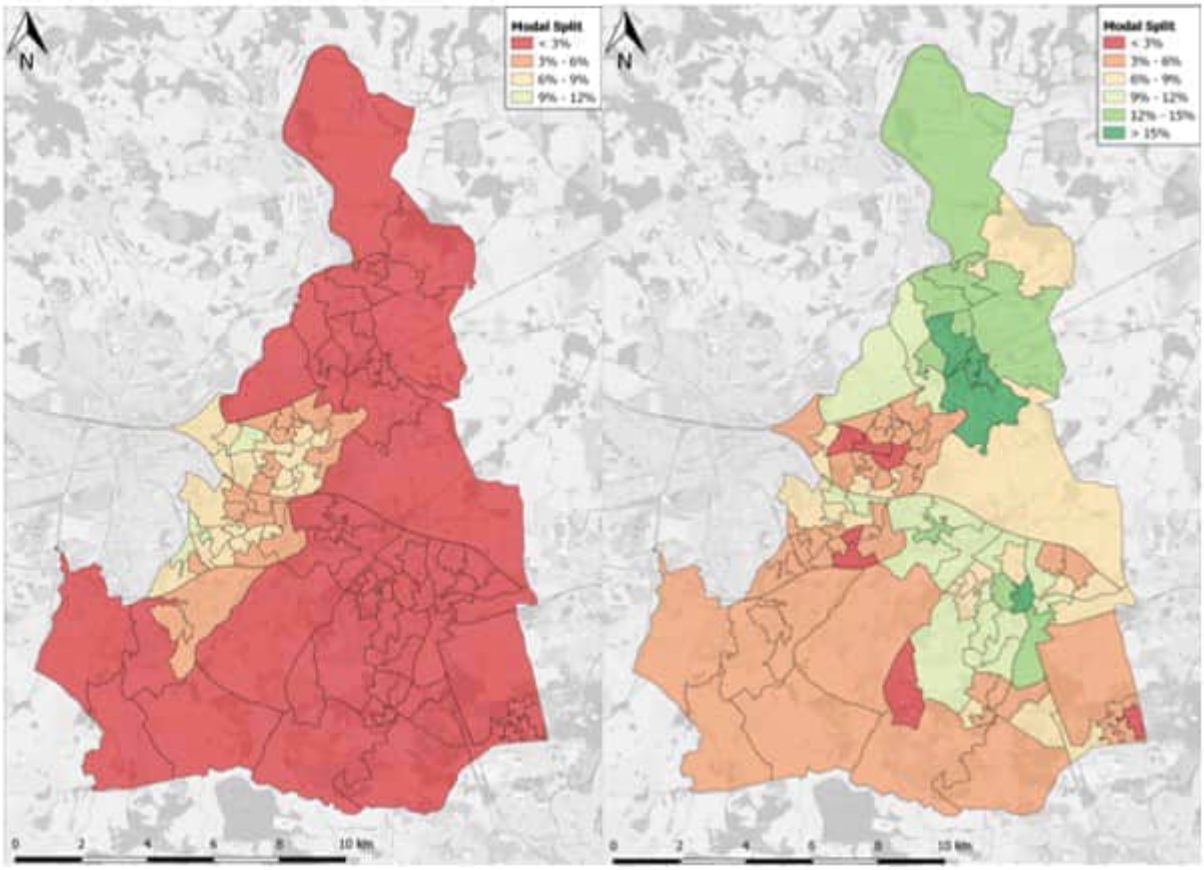
Source: DfT Local Bus Passenger Journeys 2019 (BUS0109a)

13.7.3. Both Figure 13-5 and Table 13-4 above show a greater increase in bus patronage from 2013/2014 and again from 2017/2018. The change from 2013/2014 is likely part of general annual increase in bus patronage that was further accelerated from 2015 with the opening of both Mereoak Park and Ride

and Winnersh Triangle Park and Ride. The second increase in 2017/2018 is likely attributed to the introduction of electronic ticket purchasing on Reading bus services. Reading bus services cover most of the Borough and operate along the A329, A327, part of the A4, across most of Woodley and Earley and both park and ride services.

13.7.4. Figure 13-6 shows the mode share to bus on the left-hand side and the mode share to rail on the right-hand side.

Figure 13-6 - Bus and Rail Modal Split Comparison



13.7.5. Figure 13-6 This highlights that bus usage above more than a few percent only occurs in the areas closest to Reading, such as Woodley, Earley and Shinfield. By comparison, rail usage more dispersed across the Borough, with the highest concentration of rail trips observed in and around Twyford and Wokingham town centre.

13.8 Community Transport

13.8.1. The main provider of community transport services across Wokingham and Bracknell Forest is Keep Mobile. They operate a fleet of vehicles capable of transporting those in wheelchairs or who have difficulty in negotiating steps found on other forms of public transport. They provide a door-to-door service

and enable over 14,000 passenger trips covering 1115,000km annually[13]. Fares for Borough residents start at £1.90 for a single 3km trip and increase with distance.

13.8.2. Additional community transport services are provided by other local operators including Readibus, EarleyBus, Wokingham Community Transport Scheme, and Twyford, Wargrave and District Volunteer Centre.

13.9 Taxis and Private Hire Vehicles

13.9.1. Taxis and private hire vehicles (PHVs) play an important role in enhancing accessibility for people without access to a car to get to places not served by public transport. They are used in Wokingham Borough to transport small numbers of school pupils and social services clients as they can prove more economical than deploying a bus.

13.9.2. Taxis are also important for disabled people, younger people and for providing transportation during the evening and overnight period. As well as during periods when the alternative public transport service does not operate in parts of the Borough, such as Sundays.

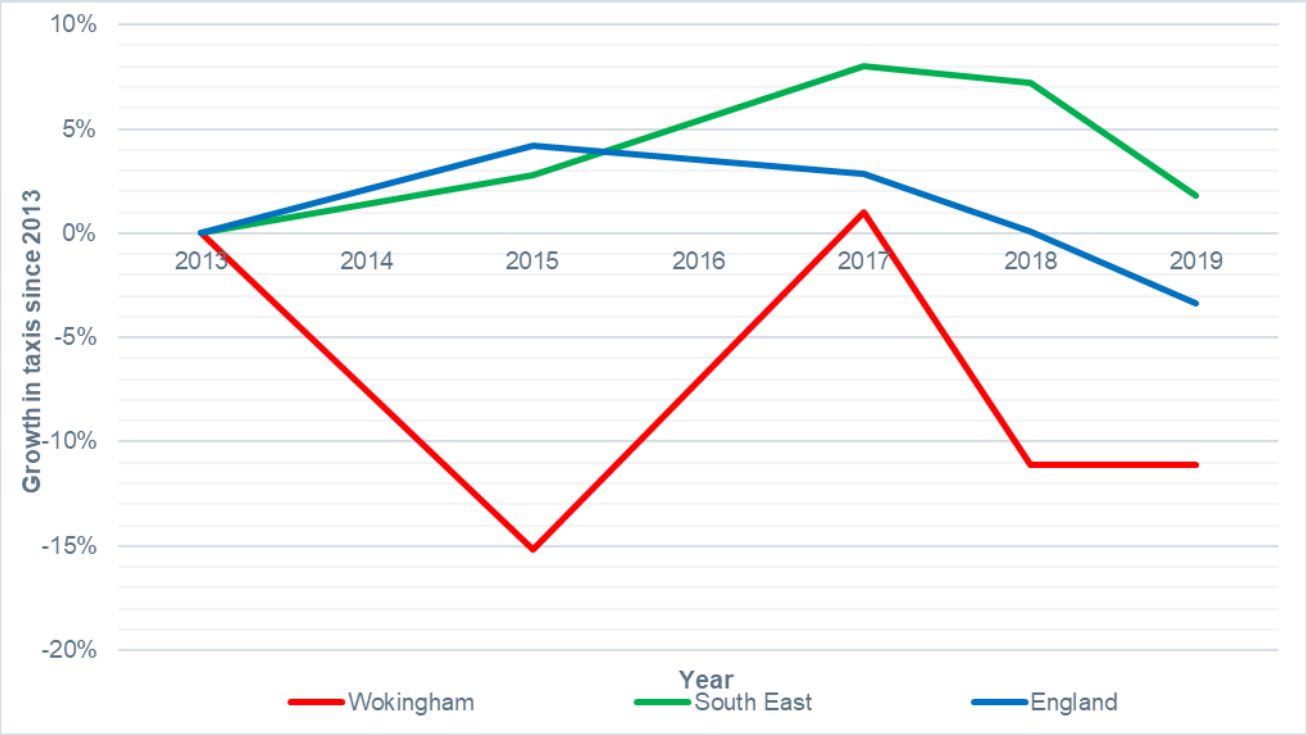
13.9.3. Taxis and PHVs in Wokingham Borough are governed by the Wokingham Borough Private Hire School and Community Services Licensing Policy and the Hackney Carriage and Private Hire Licensing Policy, which sets out requirements for vehicle standards and disabled access.

13.9.4. Figure 13-7 and Figure 13-8 present the change in the number of taxis and PHVs in Wokingham Borough, the South East and England since 2013. They show that taxi and PHV numbers in Wokingham Borough have not followed regional or national growth trends.

13.9.5. The number of taxis in Wokingham Borough has decreased by more than 10% since 2013 compared with a slight increase regionally and a slight fall nationally. The number of PHVs in the Borough has decreased by more than 30% since 2013, compared with an increase of almost 25% regionally and 50% nationally. The total number of taxis and PHVs in the Borough in 2019 was 217, compared with 286 in 2013.

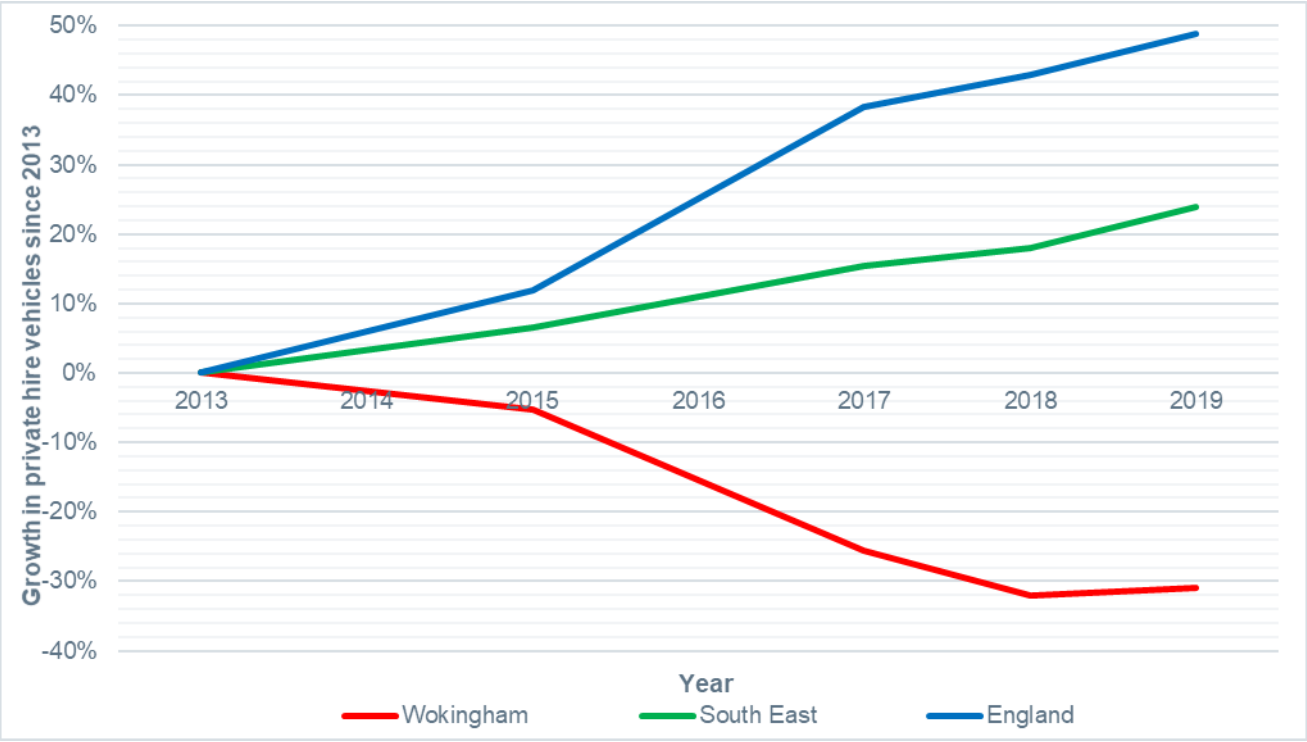
[13] http://www.keep-mobile.org.uk/

Figure 13-7 - Growth in taxis



Source: DfT Taxi and Private Hire Vehicle Statistics 2019 (TAXI0105)

Figure 13-8 - Growth in registered private hire vehicles



Source: DfT Taxi and Private Hire Vehicle Statistics 2019 (TAXI0105)

13.10 Air

13.10.1. Heathrow Airport is approximately 40km from Wokingham town and is the main airport serving the Borough. It is easily accessible by road via the M4 or by coach from Mereoak Park and Ride, Thames Valley Park and Ride or Reading station. By rail it can be accessed from Earley, Winnersh, Winnersh Triangle and Wokingham stations by changing at Staines onto the airport bus link. It can also be accessed from Twyford Station changing onto connecting bus or rail services at Hayes and Harlington station. Because of its proximity, Heathrow is an important employment site as well as destination for further onward travel.

13.10.2. Gatwick airport is approximately 75km from Wokingham town. It is easily accessible by road via the M4, M25 and M23 or by coach from Mereoak Park and Ride. By rail it can be accessed directly from Wokingham station with an hourly service provided.

13.10.3. Birmingham and Southampton Airports are also both accessible from the Borough by rail with hourly services to both provided from Reading station.

14 Shared and Future Mobility

14.1 Transport for the South East Future Mobility Strategy

14.1.1. Transport for the South East (TfSE) have published their Future Mobility Strategy which sets out an action plan for the area to take advantage of new and developing technologies. The strategy has been developed around a place-and-people based approach accounting for how different communities vary across the area. In terms of place, four broad types of places have been identified across the Southeast, these are:

- Major Economic Hubs (MEHs)
- Urban Areas
- Rural Settlements, and
- Remote Rural Areas

14.1.2. Areas have then been subdivided further based on their geographic position, scale, relationship to London and relationship to the coast. For each of the four place types listed above, bundles of future mobility modes, services and infrastructure have been developed. These bundles are flexible based on the unique characteristics of an area.

14.1.3. Parts of Wokingham Borough sit within each of the four areas: MEH including London Commuter and London Orbital Towns (Wokingham), Urban (Twyford), Rural (Finchampstead), and Remote Rural (Arborfield).

14.1.4. The Future Mobility Bundles relevant to Wokingham are shown below in Table 14-1. This shows the list of interventions against each place and the level of priority for the intervention within the area (Very High to Very Low).

Table 14-1 - Transport for the South East Future Mobility Place-Based Bundles for Wokingham

Interventions	Wokingham (MEH Bundle)	Twyford (Urban Bundle)	Finchamp-stead (Rural Bundle)	Arborfield (Remote Rural Bundle)
Hubs (mobility / community asset / service)	VH	VH	VH	VH
Digital-as-a-mode communications / services	H	VH	VH	VH
Shared mobility – digital demand responsive transport (DDRT)	H	H	VH	VH
Shared mobility - business to customer vehicle sharing (e.g., car clubs)	H	H	H	H
Shared mobility - peer to peer vehicle sharing / ride-sharing platforms	H	H	H	M
Shared mobility – ride sourcing – 'on-demand private hire/taxi'	H	H	M	M
Business to business freight capacity exchanges	H	H	M	M
Business to customer freight capacity exchanges	H	H	M	M
MaaS platform (mobility credits / gamification)	H	H	M	L
Shared mobility – e-cargo bikes	H	H	L	L
Shared mobility - powered two-wheeler	H	M	M	L
EV charging infrastructure (all modes)	H	M	M	L
Shared mobility - e-bike / e-scooter	H	M	L	L
Consolidation Centres (regional / urban / micro)	H	M	L	VL
Flexible streetscape	H	M	L	VL
Road space reallocation to future mobility modes e.g., lanes, kerb space	H	M	L	VL

Source: TfSE Future Mobility Strategy, 2021

14.1.5. Social population segments have been established that reflect the key characteristics of an area. A total of 11 segments are evident with Wokingham Borough, the most common are as follows:

- Traditional Towns – People that are more likely to have older, non-dependent children and live in semi-detached or terraced properties. Their level of qualifications tends to be lower than average with jobs typically in wholesale and retail, energy and transport related industries.
- Village Life – People that live in areas that are less densely populated, typically in a village or small town. They tend to be older, well-educated, and live in owned detached properties, although an above average proportion live in retirement homes. Households have multiple cars, with these being the most common method of transport to places of work.
- School-Run Suburbia – a growing segment of suburban families who, within their means, try to take action to reduce their environmental impact including reducing the impact of their travel choices.

14.2 Wokingham Borough Low Emission Transport Strategy

14.2.1. A low emission Transport Strategy is being developed by Wokingham Borough Council in response to the DfT's 'Decarbonising Transport: A Better, Greener Britain' in July 2021. The strategy sets a list of potential measures to decarbonise transport within the Borough at a greater level of detail than typically provided in the LTP. The report is currently on hold and will be finalised once the LTP is completed and adopted and further information regarding the governments guidance around Quantifying Carbon Reduction from Transport is available.

14.2.2. A key measure is to decarbonise road vehicles and cleaner vehicles. Since the government announced the 2030 deadline to end the sale of new petrol and diesel cars / van, this has sent a clear message to local governments, markets and consumers to shift to EVs. The provision of EV charge points is key for both the public and industry to be able to shift to EVs. Some of this provision will come through home and workstations, however 20-30% of motorists do not have access to off-street parking which creates a gap in the infrastructure available to charge EVs.

14.2.3. Table 14-2 below shows the potential measures identified to decarbonise road vehicles and the timescales associated with their delivery.

Table 14-2 - Identified Measures and Timescales to Decarbonise Transport in Wokingham Borough

Measure	Timescale (Years)
Define requirements for EV charge points in new developments to ensure high levels of charging provision	0-3
Establish EV awareness through social media, delivery webinars/forums, set up an EV experience centre or recurring event	0-3
Transition the council vehicle fleet over to low emission vehicles	0-3
Develop a long-term EV uptake strategy (see section below)	0-3
Establish low emission car club scheme	0-3
Introduce requirements for low emission vehicles as part of construction and logistics implementation plans	0-3
Comprehensive on-street charging infrastructure on origin, at key destinations and on strategic routes	4-7
Introduce a phased requirement for low emission vehicle taxis and private hire with supporting charging infrastructure	4-7
Support the introduction of low emission buses	4-7
Introduce emissions-linked parking charges and other EV incentive measures	4-7
Introduce low/zero emission zones	8-9
Explore the introduction of hydrogen refuelling stations	8-9
Introduce local scrappage scheme for older, more polluting vehicles	8-9
Ensure low emission vehicle requirements are mandated as part of procurement exercises	0
Establish a framework for business with ‘try before you buy’ scheme	0
Review local barriers to charge point deployment and undertake targeted enabling works	0
Secure and sheltered bike parking provisions as part of planning permission	0

Source: Low Emission Transport Strategy, 2022

14.3 Wokingham Borough Council Shared Mobility and Car Clubs Strategy

14.3.1. A car club strategy is being developed that considers demand, car club models, current usage in the Borough and stakeholder feedback.

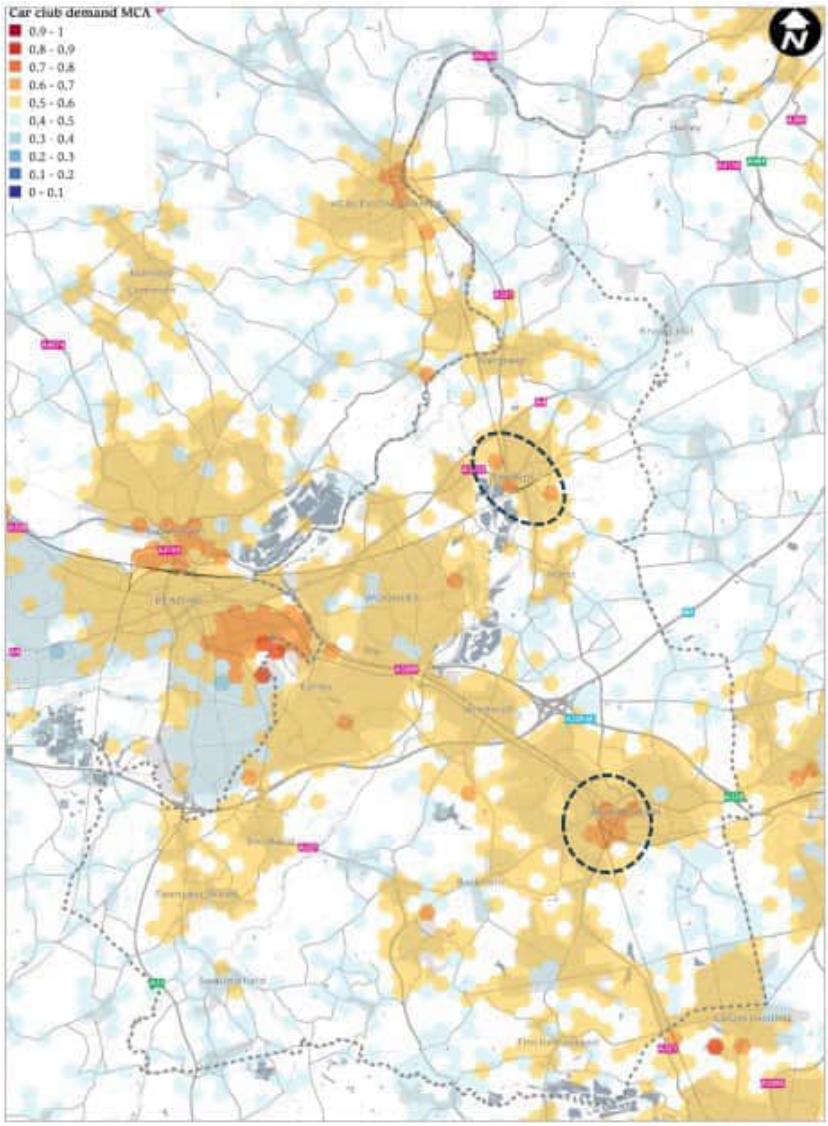
14.3.2. In recent times car club and car share schemes are becoming a more common. This is shown by the growing increase in memberships at UK car clubs, in 2020 there was more than 630,000 members which is more than double than in 2018.

14.3.3. Baselining work was carried out to assess and understand the car club market and how effectively car clubs align with local and national policy. Based on this, six objectives for car clubs have been identified as follows:

- To widen travel choice and improve connectivity with public transport.
- To reduce emissions in the borough, ensuring that operators use low emission vehicles, or have a percentage of the fleet that is low emission.
- To provide affordable and flexible transport to areas of lower-than-average incomes, improving equality and opportunities for all.
- To support mode shift away from private car use and reduce dependency on private cars. The aim is for car clubs to be a ‘steppingstone’ away from private cars, and second cars.
- To provide alternatives to private car ownership, particularly targeting areas where there is high car ownership in relation to the on-street parking capacity.
- To future proof Wokingham borough, ensuring that they are integrated with parking-limited developments and transport hubs.

14.3.4. To better understand car club demand in the borough, a multi-criteria approach was used, this included nine factors such as: (i) population density per hectare, (ii) distance to town centre, and (iii) car / van availability. The spatial analysis split the borough into hexes, and each was coloured with low scores for car clubs in blue (0-0.5), an average score in yellow (0.5-0.6) and a higher score in orange / red (0.6-1). This figure is shown below in Figure 14-1. The strategy notes that demand is challenging to predict and therefore a small pilot of car clubs could be a better approach.

Figure 14-1 - Predicted Car Club Demand in Wokingham Borough



14.3.5. Figure 14-1 above shows that Twyford and Wokingham town Centre are two areas where predicted demand is higher. This algins with the TfSE Future Mobility Strategy that identifies Wokingham town, Twyford, Finchampstead and Arborfield as areas where car clubs are a high priority.

14.3.6. Operator feedback suggests that providing car club parking bays in on-street locations is more desirable than being incorporated into new developments. This is because on-street parking bays are more visible and secure which helps increase awareness of the car club scheme.

14.3.7. The strategy identified three recommendations that should be taken forward in order to achieve the objectives identified above. There are:

- Collaboratively develop the business case for a Wokingham Borough Council subsidised trial, open to the public and Wokingham Borough Council staff with neighbouring authorities.
- Consider what disincentives could be used to reduce reliance upon personal car use.
- Raise customer awareness of car clubs in the area and continue to engage with operators to understand how they can be incentivised to operate in Wokingham Borough.

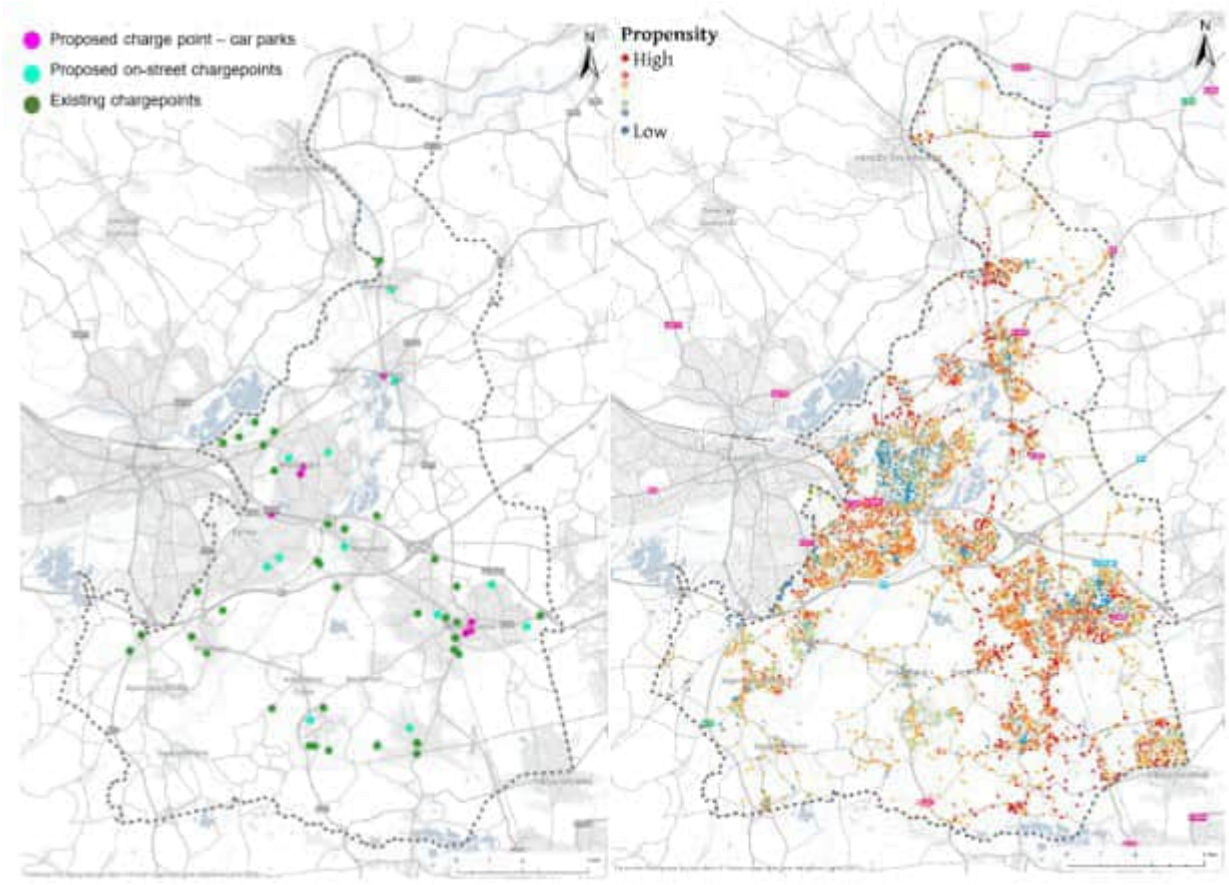
14.4 Wokingham Borough Council Electric Vehicle Strategy

14.4.1. The strategy is being developed by the council in order to help ensure there is adequate electric car charging facilities available to facilitate the growth in the EVs in the borough. The information below has been extracted from the draft strategy.

14.4.2. Wokingham Borough Council currently has 70 publicly available charge points, 35 of which are rapid chargers. This equates to approximately one publicly accessible charge points for every 26 EVs – this is the same as the national average (1:26) and above the UK average (1:25). The council is currently planning to expand its network with more charge points available in car parks and some on-street charge points.

14.4.3. Figure 14-2 below shows the known locations of the existing and planned charge points on the left and the forecast of the propensity for residents to switch to EVs on the right. This is based on socio-demographic factors such as income, education and lifestyle.

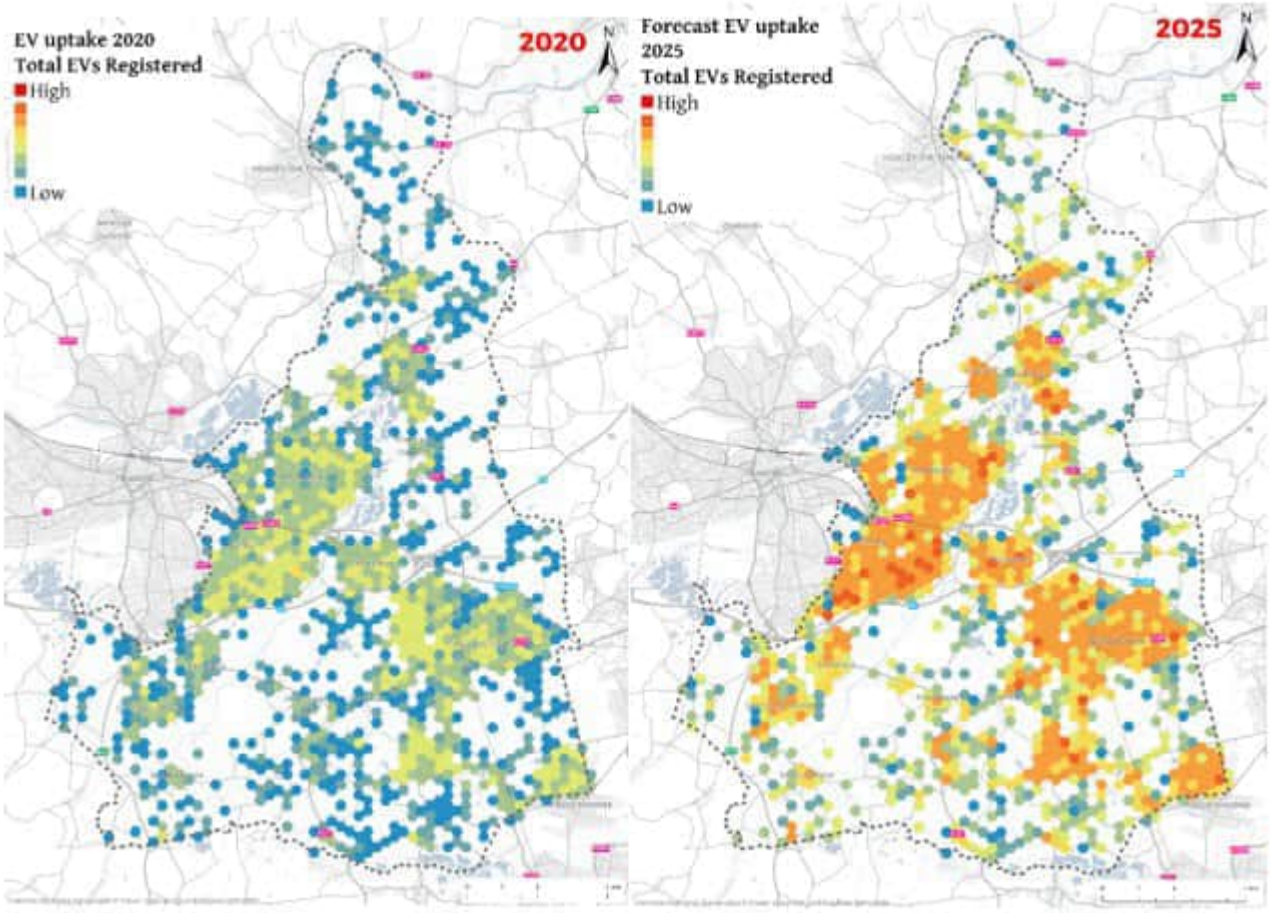
Figure 14-2 - Existing and Planned Electric Vehicle Car Parking Spaces (left) and Forecast of the Propensity for Residents to Swith to EVs (right) across Wokingham Borough



14.4.4. The figure shows that there is a higher propensity to change to EVs in all major hubs including Wokingham town, Winnersh and Earley. The exception to this is Woodley, Shinfield and Arborfield which reflect a lower propensity to switch.

14.4.5. There are other factors that can influence this transition public transport provision and off-street parking availability. Therefore, when comparing the existing and forecasted uptake of EVs that factor in all these different elements is shows a slightly different output as shown below in Figure 14-3. This shows that by 2025, a larger proportion of the borough will have a higher propensity to switch to an EV in both urban and rural areas.

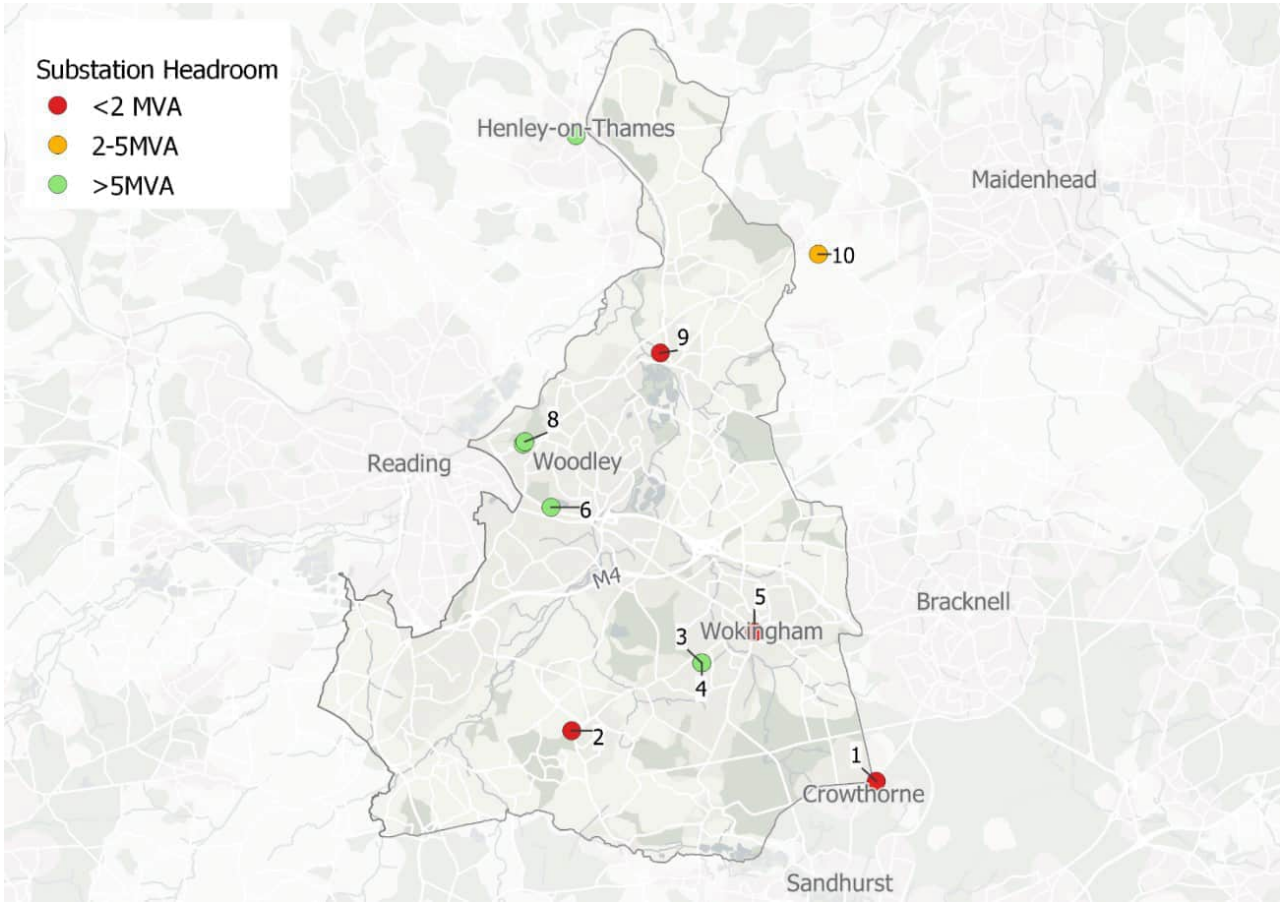
Figure 14-3 - Existing and Forecast Uptake of Registered EVs in Wokingham Borough



14.4.6. The electricity distribution operator local to Wokingham Borough Scottish and Southern Electricity Networks (SSEN). There are 11 substations in or within close proximity to the borough with power the local electricity grid.

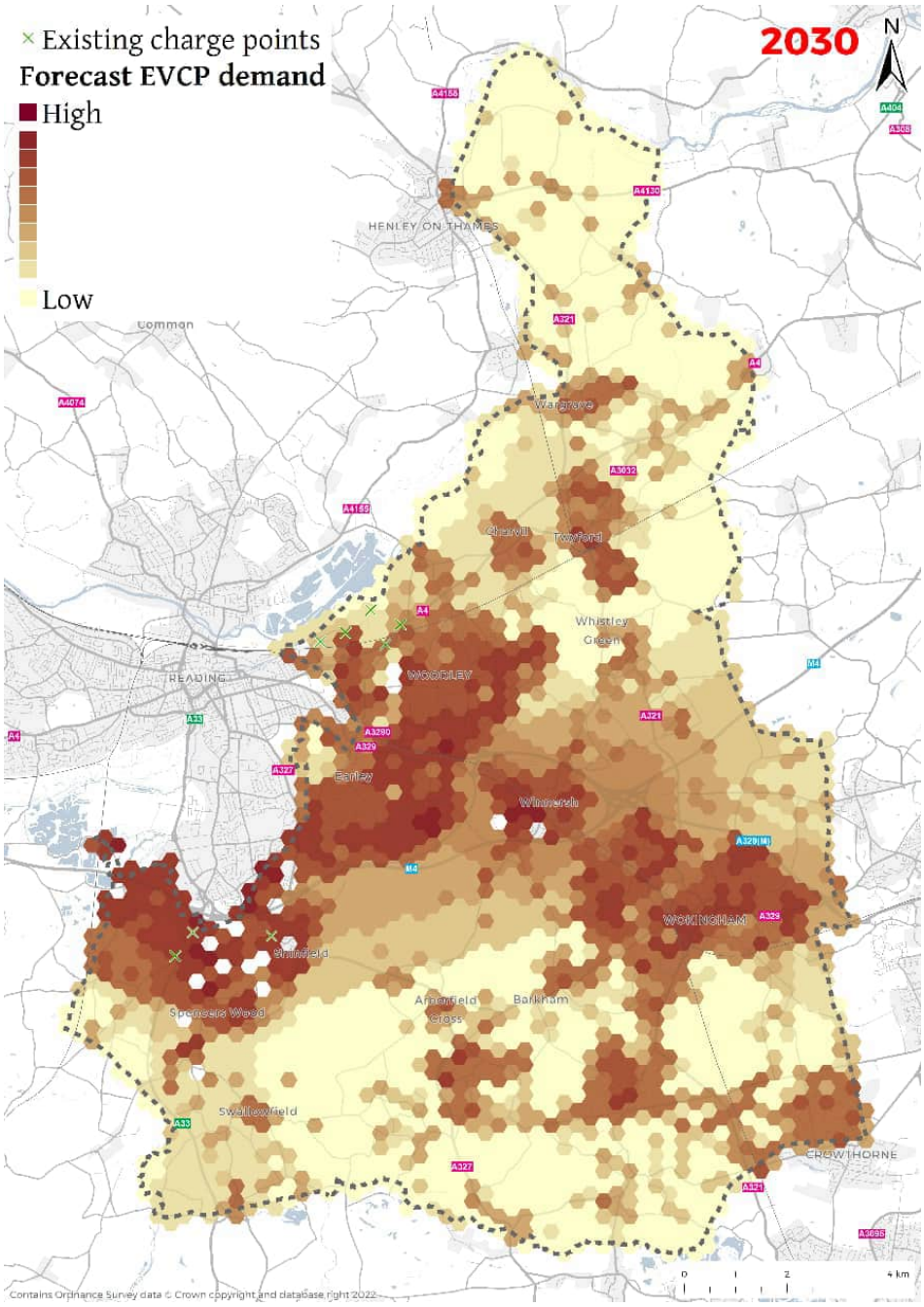
14.4.7. Figure 14-4 shows a heatmap of the network capacity of these substations in terms of their additional headroom availability. This information gives an indication of the capacity on the local network for additional EV chargers. The figure shows that all the substations that have more the 5MVAs capacity and suitable for additional EV chargers. The substations in orange have 2-3MVAs and the red substations have less than 2MVAs so minimal capacity to deal with additional EV chargers.

Figure 14-4 - SSEN Network Capacity at Substations in / near to Wokingham Borough



14.4.8. Based on supply and demand forecasts around EVs, this can be used to determine where there will be high demand for EV charging. Despite this, the private sector is unlikely to provide chargers and therefore a gap analysis was done to determine where infrastructure gaps are likely to occur. Figure 14-5 below shows this gap analysis with dark red points showing where there are mostly likely to be gaps in infrastructure availability and yellow shows where this is least likely. This shows that the urban areas, especially towards Reading, are more likely to have gaps.

Figure 14-5 - Gap Anaylsis of EV Charging Provision across Wokingham Borough



14.4.9. EV charging also needs to be included within new developments, both for residents and visitors. Wokingham Borough Council have already detailed this need within their policies; however, it is key that provision is installed in line with future forecasts and building regulations for EV charging.

15 Freight

15.1 Introduction

15.1.1. Freight is key for delivering goods and services and is it key that they are delivered in a safe, reliable and efficient way into urban centres whilst reducing the air quality and carbon impacts on the area. The following section covers the national policy relating to freight as well as the existing conditions around road and rail freight movement within the borough.

15.2 National Policy

Future of Freight: a long-term Plan, 2022

15.2.1. In June 2022, the Department for Transport (DfT) published 'Future of Freight: a long-term plan'. This sets out the plan to overcome the challenges and opportunities relating to transitioning to a net-zero future as well as contributing to levelling-up and strengthening the UK's global impact. This plan helps to build an enhanced partnership between government and industry to set the direction and strategic priorities for the sector. In working together, a vision, set of priorities, actions and themes to meet the challenges and opportunities have been identified.

15.2.2. The vision of this plan is "a freight and logistics sector that is cost-efficient, reliable, resilient, environmentally sustainable and valued by society". The five priorities of the plan are as follows:

- **Cost efficient –** supporting the sector to deliver globally competitive costs and support the broader UK economy with access to low-cost goods transport.
- **Reliable –** facilitating the sector delivering consistently good performance for its customers, providing reliable access to the goods that businesses and consumers need.
- **Resilient –** Bolstering the freight network's capacity to anticipate absorb, resist or avoid disruption and recover when disruption does occur. Maintaining the smooth flow of goods throughout.
- **Environmentally sustainable –** Achieving a net zero freight and logistics sector by 2050, whilst supporting broader environmental objectives of air quality and noise reduction.
- **Valued by society –** Ensuring freight is valued by the public and decision makers across sectors reflecting its critical importance to the wider economy, and the lives of everyone in the UK.

15.2.3. Five key themes are identified within the plan that have challenges, goals and actions associated to them. These key themes are: (i) a National Freight Network, (ii) Transition to Net Zero, (iii) Planning, (iv) People and Skills, and (v) Data and Technology.

15.3 Regional Policy

Transport for the South East Freight, Logistics and Gateways Strategy, May 2022

15.3.1. This strategy sets out a vison for developing the sector going forward up to 2040. It identifies investment to help better connect ports, airports and rail links within the region to help support sustainable economic growth both in the region and across the UK. Following on from this, the strategy includes an action plan that details how the strategy will be delivered.

15.3.2. Whilst developing the strategy, a Freight Forum between many key stakeholders, including Wokingham Borough Council, has been created. Key actions of the Freight Forum are as follow:

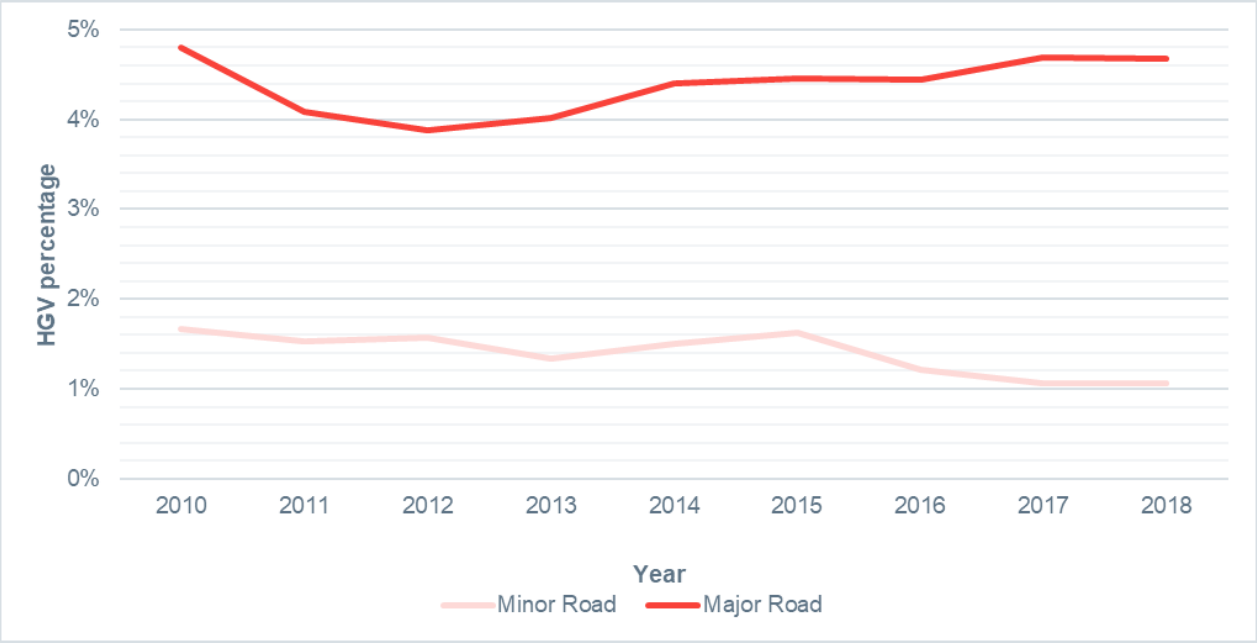
- Help develop the strategic vision and goals for the strategy.
- Develop guidance for businesses on best practice approaches to procurement achieving cost savings and reducing environmental impacts.
- Develop guidance for individuals on online purchasing explaining the impact it can have on the local environment.
- Create a green purchasing programme to incentives sustainable behaviour.
- Create subgroups within the forum – including Local Authority Office Subgroup
- Develop guidance from the subgroups for local authorities on the industry needs and how local authority policies and process can help achieve this.

15.3.3. In terms of specific freight corridors recognised within the strategy, the M4 is a key corridor that runs through Wokingham. In particular, junction 11 is recognised as in need of upgrade in order to improve access to Heathrow Airport.

15.4 Road Freight

15.4.1. Road freight is the most dominant method for transport freight. As a result, heavy good's vehicles (HGVs) are a common means of transport freight within the area. Figure 15-1 below shows the percentage of HGVs on Wokingham Borough's major and minor road network between 2010 and 2018. Over the time period shown, freight movement has reduced on the minor road network and steadily increased on the major road network. According to the 2018 DfT Road Freight Statistics, 52% of all inbound freight to the Berkshire, Buckinghamshire and Oxfordshire area originated from within these three counties. Similarly, 59% of all outbound freight from the Berkshire, Buckinghamshire and Oxfordshire area was delivered to destinations within these three counties. This reflects the predominantly short-haul nature of road freight in the local area.

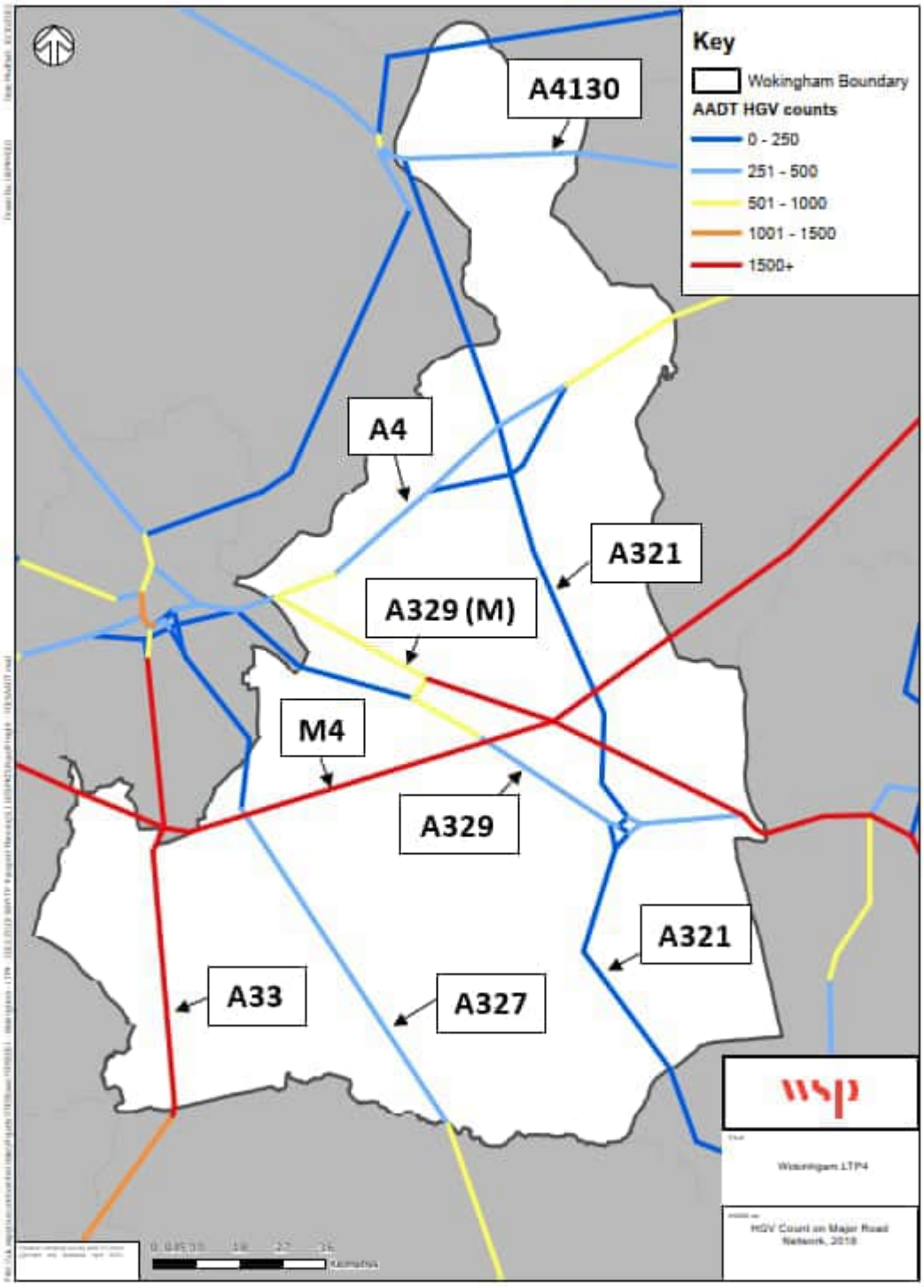
Figure 15-1 - Percentage of HGVs on Wokingham Borough's major and minor road networks



Source: DfT Road Traffic Counts, 2018

15.4.2. Figure 15-2 below shows the annual average daily traffic (AADT) flow for HGVs on the major network in 2019. This gives an indication of the most common freight corridors used within the Borough. Based on this, the busiest routes other than the motorways the A329 (Winnersh to Wokingham), A327 and the A4. The A321 and the A329 (Reading to Winnersh) are less common routes.

Figure 15-2 - 2019 AADT for HGVs on Major Roads in Wokingham



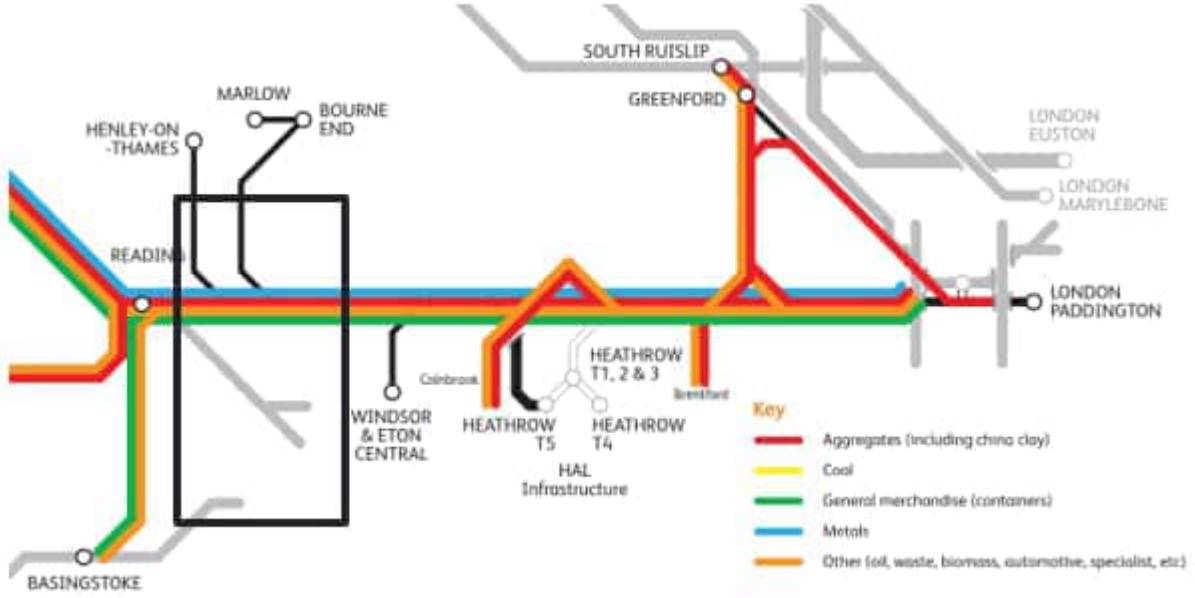
15.4.3. Light goods vehicles (LGVs) are the only motor vehicles that have seen an increase in flows within the borough over the last 15 years. This is likely attributed to the growth in online shopping and individual trips being replaced by a single van making multiple deliveries. It is likely that flows in LGVs are unlikely to be reduced as a result of increased digital accessibility.

15.5 Rail Freight

15.5.1. There are two rail freight routes that pass-through Wokingham Borough. These are the Western route and the Wessex route.

15.5.2. The Western route is the second busiest route into London for UK freight and significantly contributes to the UK economy and major industries. Across the route there are approximately 45 freight terminals which handle at least 12 different commodities. The major commodities are aggregates, coal, containers and steel. Freight forecasts have been produced for this route and show a substantial growth in intermodal freight from ports, a gradual decline in coal traffic and a modest growth in other commodities. However, it is worth noting that the aggregate market is currently growing faster than previous forecasts due to government policy, so the forecasts are relative. Figure 15-3 below shows the 2019 forecast freight flows and the black box indicates the Wokingham area.

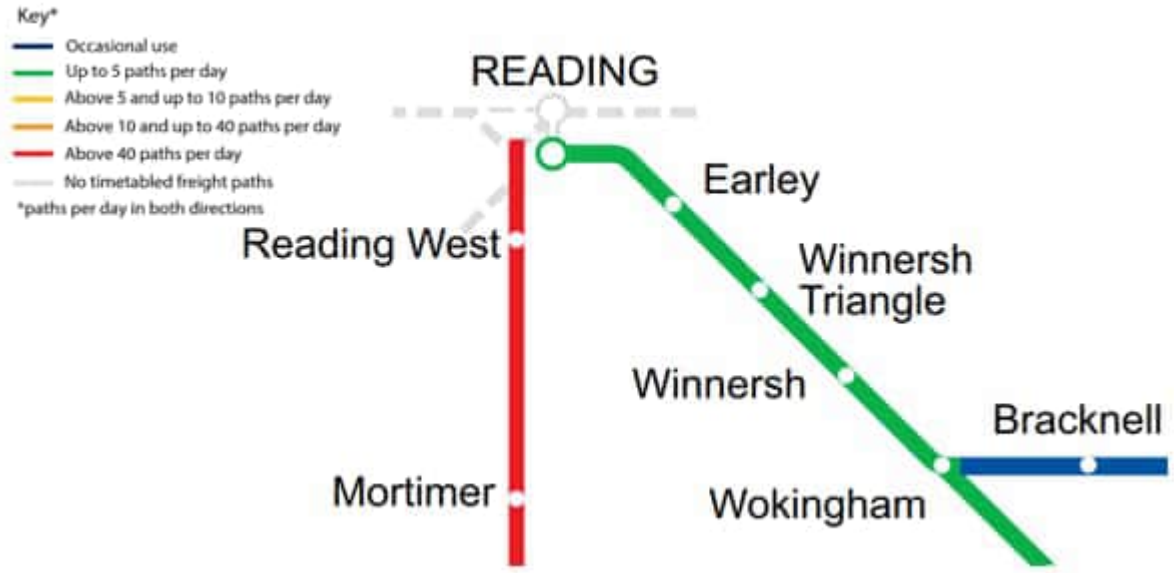
Figure 15-3 - Western Route through Wokingham - 2019 Forecast Freight Flows



15.5.3. There are proposals for a new freight terminal being considered on the Western Route near Theale.

15.5.4. The Wessex route is a very busy and commonly congested route on the railway network and covers areas between Reading and London Waterloo, and down to the south to Weymouth, Southampton and Portsmouth. There are significant freight flows across the Wessex route and the route handles different commodities from Southampton docks, Southampton Maritime Terminal and Millbrook Freightliner Terminal. Commodities transferred along this route include automotive, aggregates and petroleum. Figure 15-4 below shows the freight routes running through Wokingham and how often the route is used on a daily basis. This shows that the line through Wokingham a low level of freight movements compared to mainline.

Figure 15-4 - Key Freight Routes through Wokingham and along the Wessex Route



16 Traffic and Road Network

16.1 Road Network

16.1.1. Wokingham Borough Council is responsible for managing 8.2km of principal motorway, 76.4km of 'A' roads, 59.1km of 'B' roads and 627.2km of 'C' and unclassified roads[14]. Wokingham Borough is criss-crossed by the following key roads. In addition, 12.7km of trunk roads (M4) are managed by Highways England.

16.1.2. Prominent routes in the borough include.

- The M4 motorway crosses east to west through the centre of the Borough, linking it with London, Heathrow Airport, the Southwest and South Wales.
- The A329(M) runs north-west to south-east providing links to Reading, Bracknell and the M3 via the A322. It is one of the few sections of motorway in England that are managed by the local highway authority.
- The A4 runs largely parallel to the M4 linking it with London, Heathrow Airport, Bristol.
- The A33 runs north to south along the western edge of the Borough, linking Reading with Basingstoke and the M3.
- The A321 runs north to south along the eastern edge of the Borough, linking Henley-on-Thames with Blackwater and the M3.
- The A327 runs north to south through the centre of the Borough, linking Reading with the M3 and Farnborough; and
- The A329 runs north-west to south-east linking Wokingham town with Ascot, Bracknell, Reading, Wallingford and the M40.

16.2 Road Maintenance

16.2.1. The Borough has over 300 traffic-sensitive streets, 30,000 road gullies and 61 pedestrian crossings. It also has responsibility for 249 structures, including 166 bridges. The Borough also has responsibility for 16,000 streetlights. Between 2016 and 2019 the Borough, 70% funded by the DfT Challenge Fund, replaced 8,000 ageing streetlight columns and installed over 13,000 LED lanterns across the Borough.

16.2.2. Table 16-1 indicates that the number of roads requiring maintenance in Wokingham Borough is significantly below the English average. Furthermore, and unlike the national trend, the number has reduced in all categories since 2015/16.

[14] Total road length (kilometres) by road type and local authority in Great Britain, DfT 2019 (RDL0202a)

Table 16-1 - Percentage of network where maintenance should be considered.

Road type	15/16 A	15/16 B&C	15/16 U	16/17 A	16/17 B&C	16/17 U	17/18 A	17/18 B&C	17/18 U	18/19 A	18/19 U	18/19 U
Wokingham	5%	5%	Not applicable	4%	5%	13%	3%	4%	13%	2%	3%	10%
England	3%	6%	16%	3%	6%	17%	3%	6%	16%	3%	6%	16%

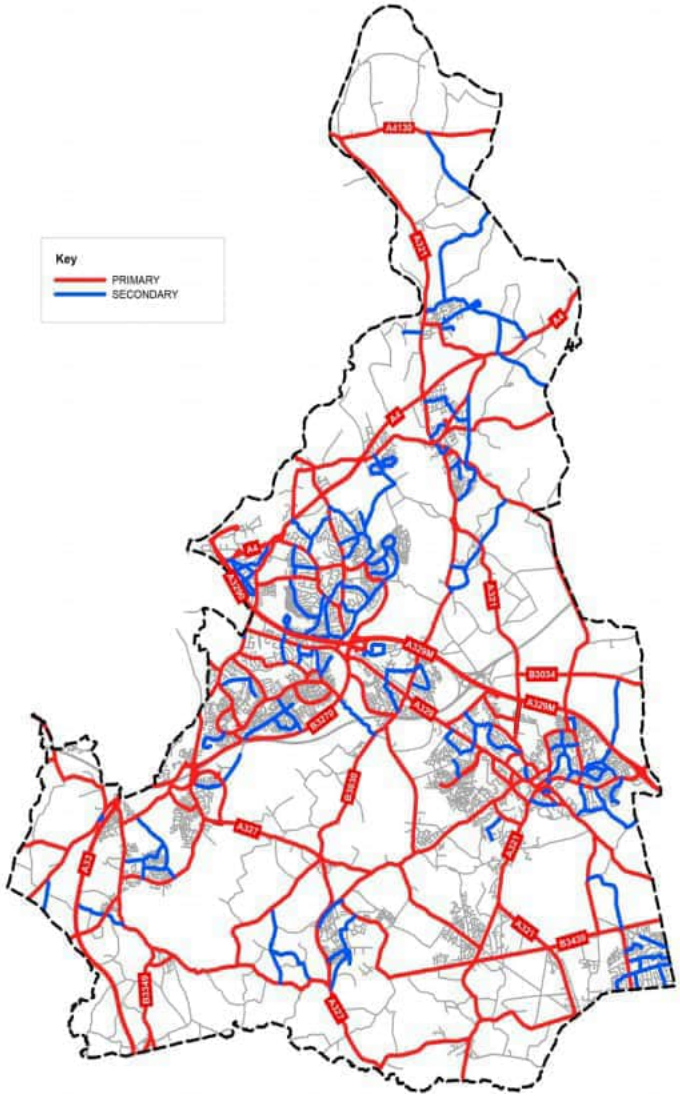
Source: DfT Road Conditions in England: 2019 (RDC0120 and RDC0130)

16.2.3. As maintenance budgets are tightened, preventative maintenance is focussed primarily on the A and B roads and so C roads and unclassified roads, in general, are not routinely maintained. This could lead to lower classified roads road deteriorating faster and eventually requiring more significant measures.

16.2.4. The 2019/20 Wokingham Borough Highway Maintenance Management Plan contains its Winter Service Plan which aims to ensure, as far as is reasonably practical, the safe movement of traffic on all Borough managed motorways, all strategic routes, the majority of the main distributor roads and other well-trafficked roads. This Primary precautionary salting network comprises approximately 260km of roads and represents 37% of all the boroughs publicly maintained highways.

16.2.5. In addition, a Secondary salting network has also been defined by the Borough comprising the main routes leading to schools, bus routes, some residential roads and lightly trafficked rural roads which become hazardous if left untreated during prolonged periods of particularly severe weather conditions. Figure 16-1 shows the Primary and Secondary salting networks.

Figure 16-1 - Wokingham Borough Resilient Road Network

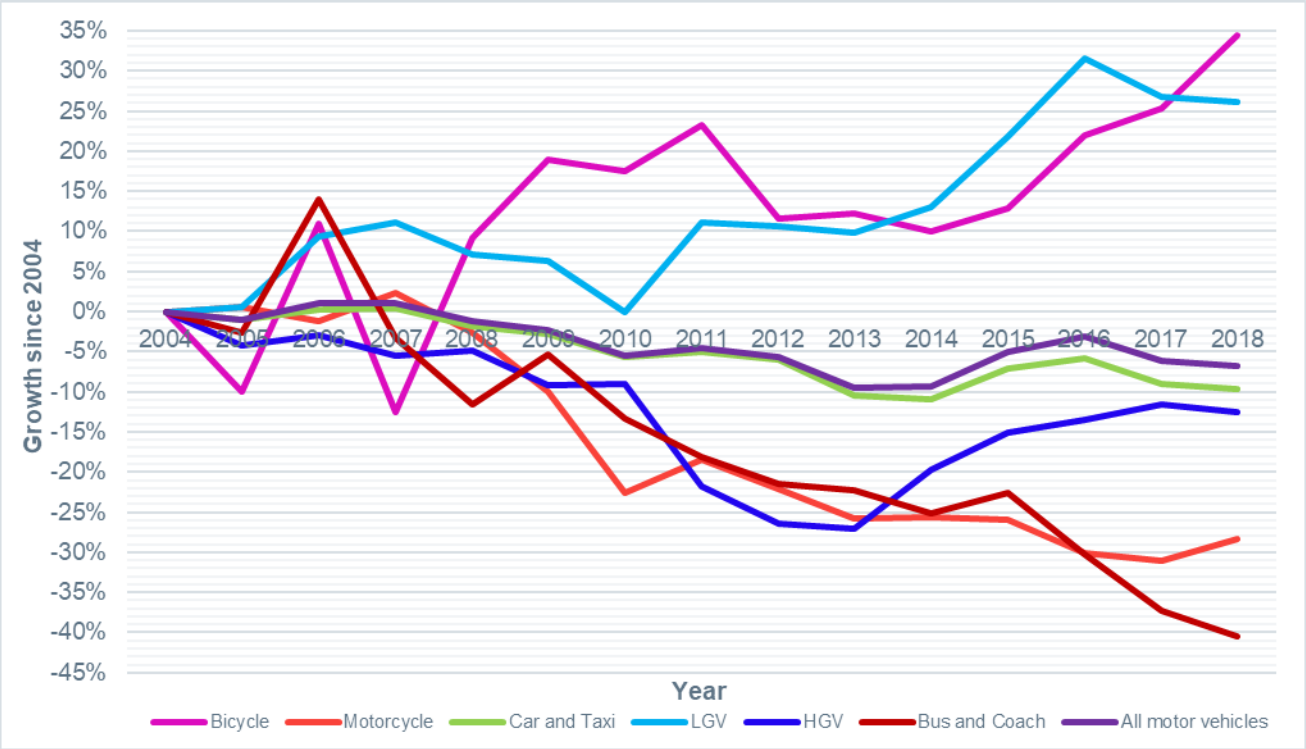


16.2.6. This Secondary network is 94km and represents 14% of all the boroughs publicly maintained highways and will be cleared when deemed necessary, following completion of the clearance of the Primary network.

16.3 Changes in Traffic Volume by Vehicle Type

16.3.1. The Department for Transport collects traffic data annually from 46 count sites located on major roads throughout Wokingham Borough. Figure 16-2 presents the growth, by vehicle type, of the combined annual average daily flow (AADF) passing through these 46 sites since 2004.

Figure 16-2 - Traffic growth on Wokingham Borough's major roads since 2002, by mode



Source: DfT Road Traffic Counts 2018

16.3.2. The figure above shows that only bicycles and Light Goods Vehicles (LGVs) have shown any growth in 2017/2018. In 2018 34% more bicycles passed the 46 sites compared to 2004. Similarly, with LGVs, 26% more LGVs passed through the 46 sites than in 2004. The strong growth in LGV flows could reflect the growth in online shopping and home delivery, particularly given parts of Wokingham Borough have limited local facilities nearby.

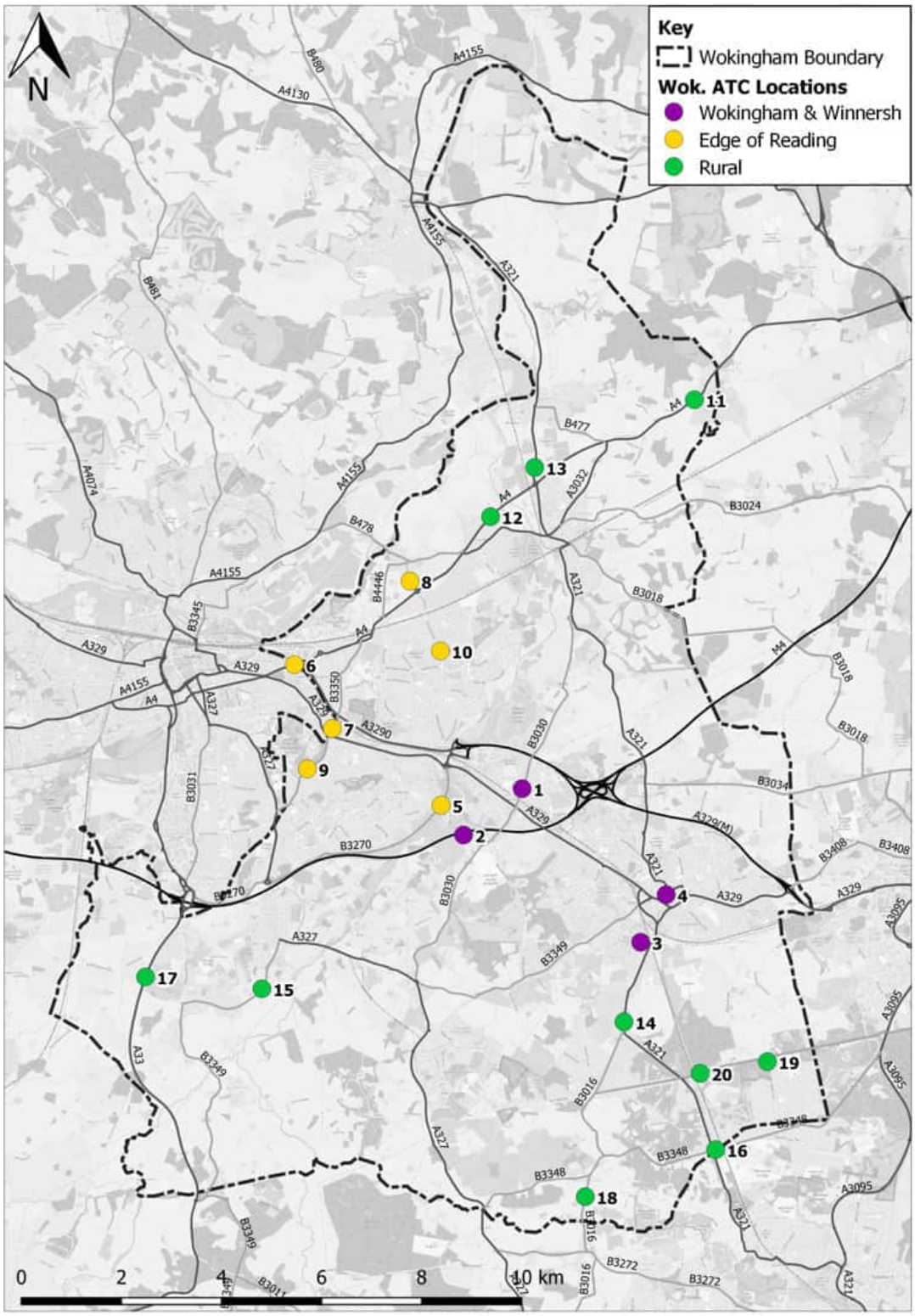
16.3.3. The modes experiencing the biggest falls since 2004 were buses and coaches and motorcycles with flows in 2018 passing the 46 sites being 40.5% and 28.4% lower respectively.

16.3.4. Heavy goods vehicle (HGV) flows also experienced a significant decline between 2004 and 2013 falling 27.1%. However, since 2013 flow levels have recovered somewhat and in 2018 were only 12.6% below 2004 levels.

16.4 Changes in Traffic Volumes Across the borough

16.4.1. Data has been collected from a range of automatic traffic counters across the borough to identify how traffic volumes have been changing over the last 10- 20 years. Where data is available, analysis has been undertaken to identify annual trends and traffic flow profiles for different types of routes. Figure 16-3 below shows the automatic traffic count (ATC) locations within Wokingham Borough.

Figure 16-3 - Location of the ATC counters in Wokingham Borough



16.4.2. The traffic analysis carried out below has been split into the following groups for the for better identification of the traffic characteristics of the roads across the borough:

- Wokingham and Winnersh (noted Wok & Win below)

- Edge of Reading
- Rural (North and South)
- Rural (North)
- Rural (South)

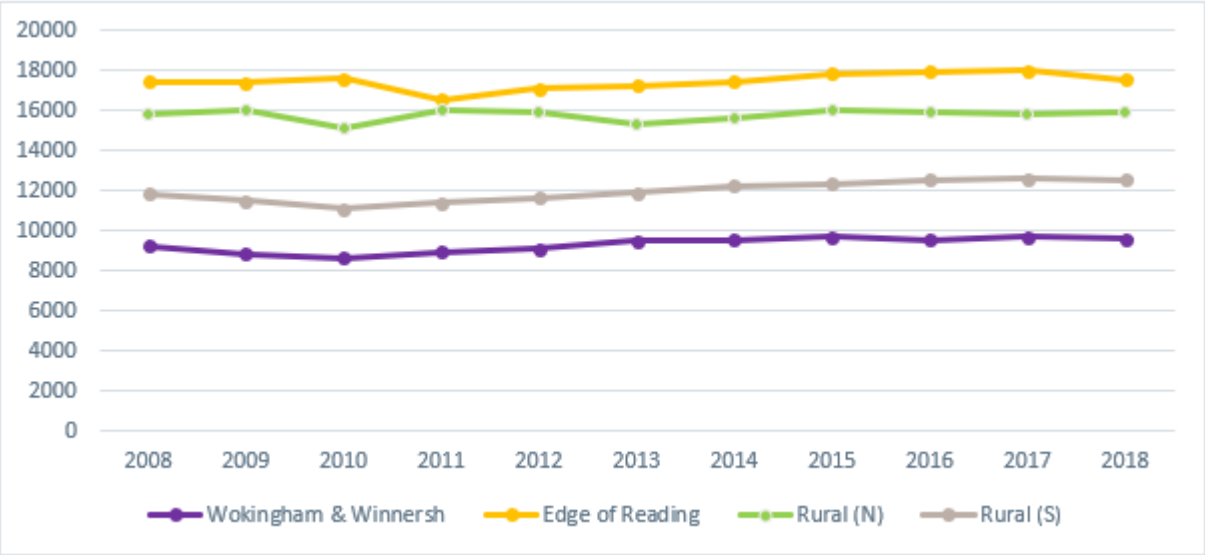
16.4.3. Figure 16-4 below shows that despite a steady increase in population growth in recent years, traffic volume has been largely flat. Overall, there has been an increase between 2008-2018 of 2.8%, although from 2003 to 2018 flows fell by 1.9%.

Figure 16-4 - Change in AADT Flows between 2003 – 2018

No.	Typology	Description	Annual Average Daily Traffic (AADT) Flows				Overall Change
			2003	2008	2013	2018	(2008 -2018)
1	Wok & Win	B3030 Robin Hood Lane, Winnersh	7776	7747	7531	7340	-5.30%
2	Wok & Win	Mill Lane, Sindlesham	-	10163	10088	9933	-2.30%
3	Wok & Win	Molly Millars Lane, Wokingham	-	10118	11527	11757	16.20%
4	Wok & Win	A329 Rectory Road, Wokingham	-	8912	8898	9377	5.20%
	Wok & Win	**Typology Average – Wok & Win**	-	**9235**	**9511**	**9602**	**3.50%**
	Wok & Win	A329 (M)	-	-	-	33356	
5	Reading	B3270 Lower Earley Way North,	24653	24567	24321	25809	5.06%
6	Reading	Sutton Seeds West	34624	30861	34397	32521	5.38%
7	Reading	B3350 Church Road, Earley	14242	14204	12212	12427	-12.51%
8	Reading	Pound Lane, Sonning	-	5984	6105	6658	11.26%
9	Reading	B3350 Wilderness Road, Earley	-	19167	16846	18419	-3.90%
10	Reading	Butts Hill Road, Woodley	-	9838	9436	9294	-5.53%
	Reading	**Typology Average – Edge of Reading**		**17437**	**17220**	**17521**	**-0.04%**
11	Rural (N)	A4 Knowle Hill, Knowle Hill	21727	19909	18735	19200	-3.56%
12	Rural (N)	A4 Bath Road, Charvil	21218	19419	18676	19919	2.57%
13	Rural (N)	A321 Wargrave Road, Twyford	8601	8183	8648	9288	13.50%
	Rural (N)	**Typology Average – Rural (N)**		**15837**	**15353**	**16136**	**4.17%**
14	Rural (S)	A321 Finchampstead Road,	18364	17759	17109	16616	-6.44%
15	Rural (S)	B3349 Hyde End Road, Spencers Wood	-	6922	6083	7490	8.21%
16	Rural (S)	B3348 Dukes Ride, Crowthorne	9416	8978	9463	9350	4.14%
17	Rural (S)	A33 Swallowfield Bypass, Reading	27465	27194	28460	31369	15.35%
18	Rural (S)	B3016 Eversley Cross, Eversley	4840	4560	4725	4885	7.13%
19	Rural (S)	New Wokingham Road, Crowthorne	5971	6443	6193	6061	-5.93%
20	Rural (S)	B3430 Nine Mile Ride, Crowthorne	12112	11136	11041	11892	6.79%
	Rural (S)	**Typology Average – Rural (S)**		**11856**	**11868**	**12523**	**4.36%**
	Rural	**Typology Average – Rural**		**13847**	**13610**	**14329**	**4.27%**

16.4.4. Figure 16-5 below also indicates the slight change in traffic flows within the borough. This shows the average AADT flow for each typology and there is a steady annual increase in traffic flows. Between 2008 and 2018 there has been a change of 6% in flows.

Figure 16-5 - Average AADT flow for each typology area



16.5 Daily ATC Traffic Profile by Typology

16.5.1. There are two typical traffic flow profiles, these are a flat profile or an M profile and are shown below in Figure 16-6. Both of these profiles are evident within the daily profiles that have been produced and analysed for each of the typologies.

Figure 16-6 - Typical traffic flow profiles

16.5.2. A flat profile rises during the morning peak and stays at similar levels throughout the day until flows decrease after evening peak. An M profile has distinctive peaks in the morning typically at around 08:00 or 09:00 and again in the evening at around 16:00 or 17:00 with lower flows during the day between the peaks.

16.5.3. From Figure 16-7 below, it is observed that the average workday profile for most of the typologies can be categorised as M type with distinct peaks between 07:00 – 09:00 and 16:00 – 19:00. This is most distinct for A329 (M). The traffic profile for Edge of Reading appears to be almost flat between 07:00 – 19:00 with traffic flowing at capacity throughout the day. This is a similar trend observed Wokingham town and Winnersh to a lesser extent.

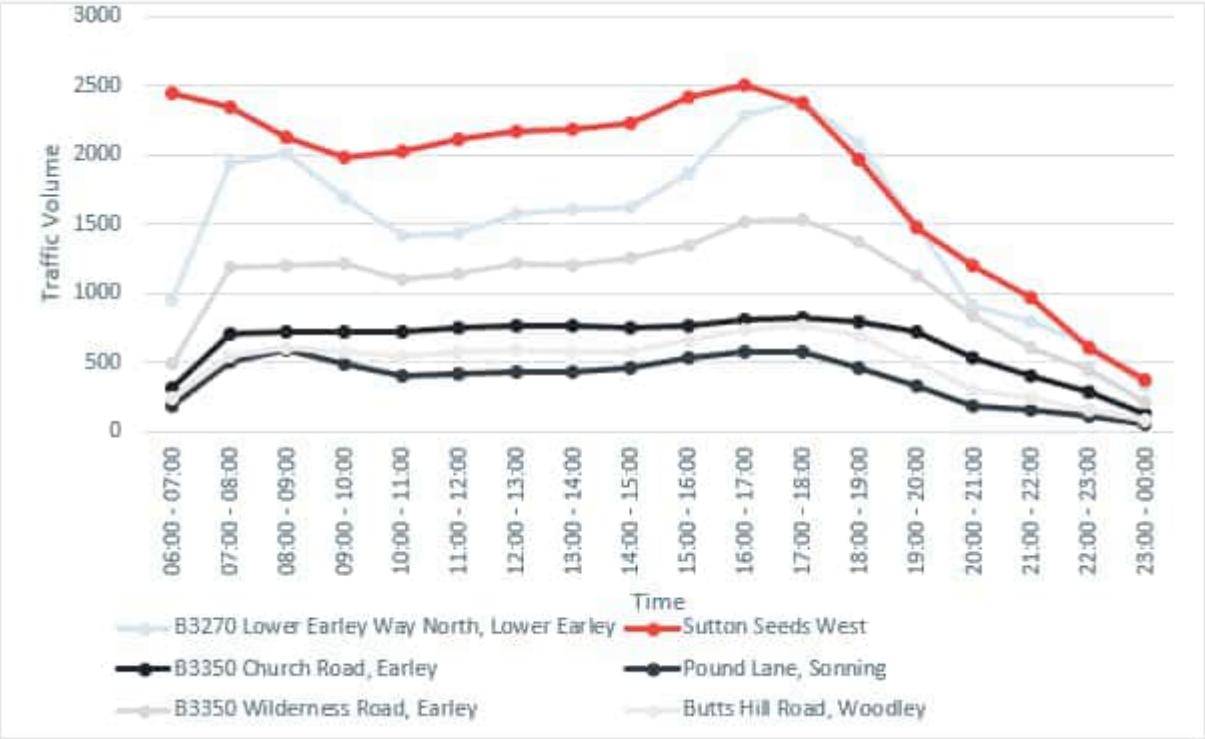
Figure 16-7 - Average workday profile for each typology

16.5.4. Figure 16-8 shows that all the ATC counters within Wokingham and Winnersh show typical M profile. However, the A329 Rectory Road Wokingham show the traffic increasing between 07:00 – 18:00 before subsiding. Molly Millars Lane in Wokingham shows an increase in traffic volume between 12:00 – 14:00.

Figure 16-8 - Average workday profile for Wokingham and Winnersh Typology

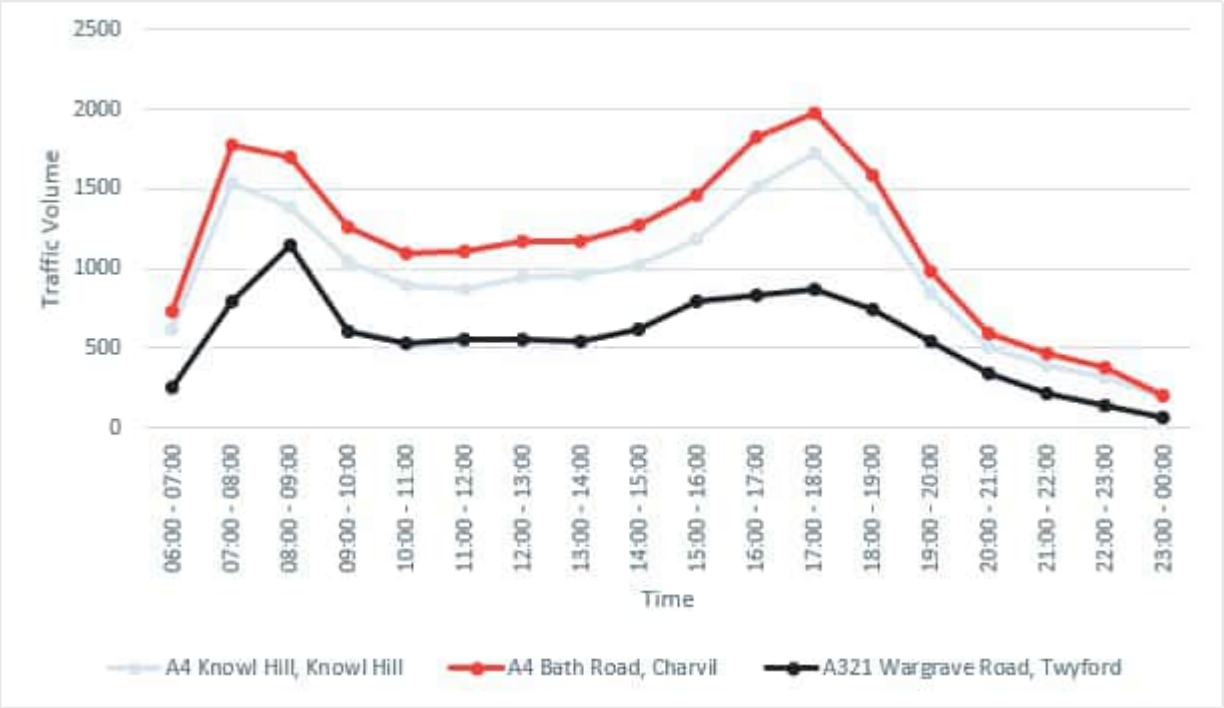
16.5.5. Figure 16-9 shows the traffic profiles within the Edge of Reading typology area. This shows a mixed pattern with most of the roads showing almost flat profile except the B3270 Lower Earley Way North.

Figure 16-9 - Average workday profile for Edge of Reading Typology



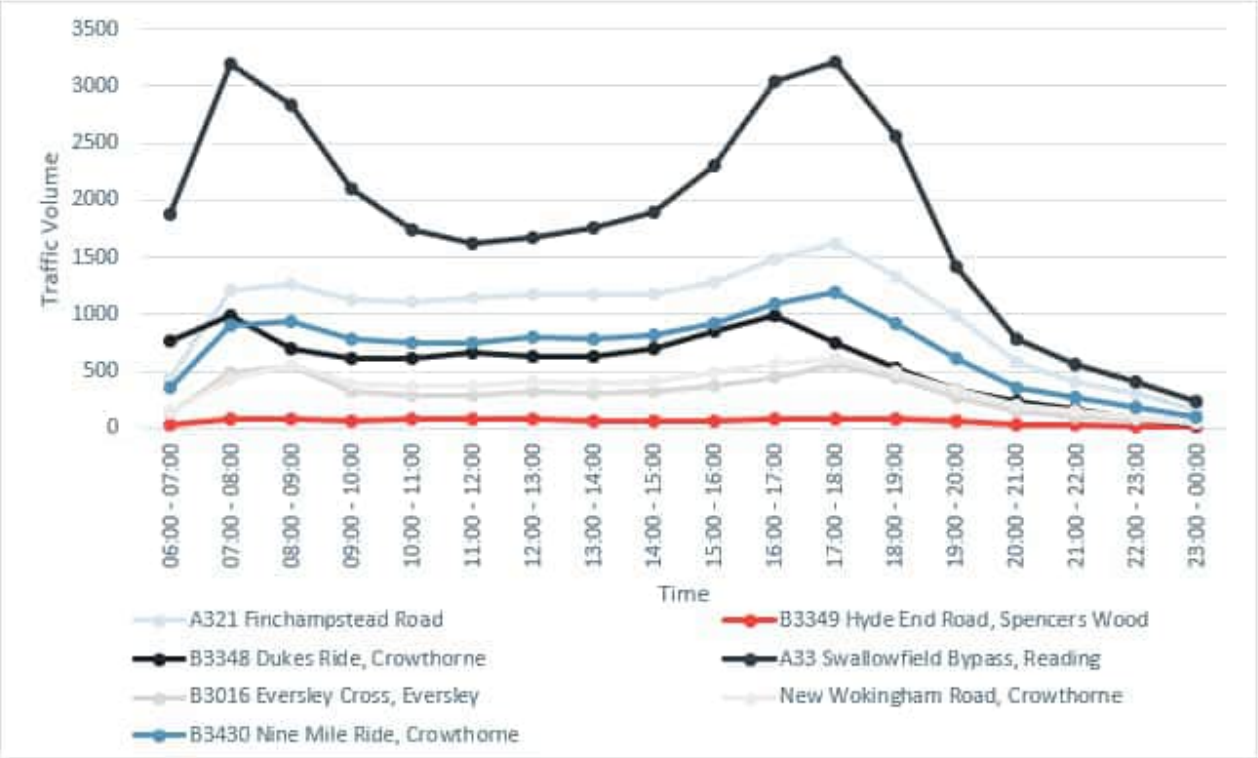
16.5.6. Figure 16-10 shows the traffic profiles within the Rural North. The A4 Knowle Hill Road, A4 Bath Road in Charvil and A321 Wargrave Road in Twyford show typical M profiles with a flatter PM peak for A321 Wargrave Road as compared to the other two roads.

Figure 16-10 - Average workday profile for Rural (N) Typology



16.5.7. Figure 16-11 shows the traffic profiles for the Rural South area. Similar to Edge of Reading typology, Rural (South) also exhibits a mix of M and flat profiles. Among all the roads under this typology, the most conspicuous profile is exhibited by A33 Swallowfield Bypass connecting M4 & Reading to Basingstoke. A33 Swallowfield Bypass serves as an important link for travel to work between Spencer's Wood, Swallowfield and Grazeley in southwest Wokingham to south and central Reading.

Figure 16-11 - Average workday profile for Rural (S) Typology



16.6 Congestion and Delays

16.6.1. Table 16-2 below shows that, whilst average delays on locally managed A roads in the South East and England have increased every year since 2015, on locally managed A roads in Wokingham Borough average delays increased from 2015 to 2016 but decreased from 2016 to 2018. Average delays on locally managed A roads in Wokingham Borough, however, remain above regional and national levels.

16.6.2. Average speeds on locally managed A roads in the South East and England have generally been slowly falling since 2015 and in 2018 were 28.0mph in the South East and 24.9mph across England. In Wokingham Borough, however, average speeds have been rising since 2016 and in 2018 were 28.4mph, which was above both the regional and national levels.

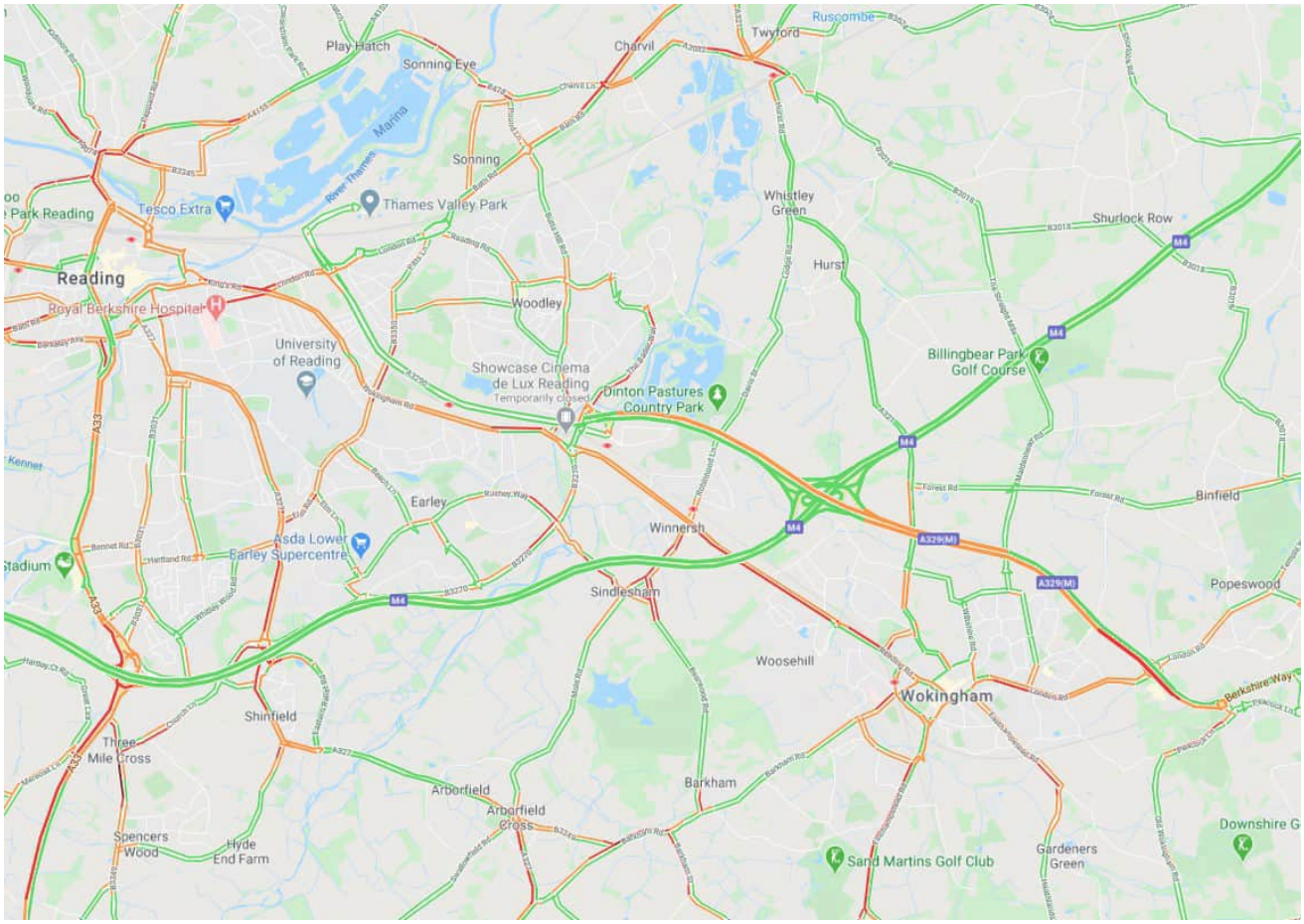
Table 16-2 - Average delays (seconds per vehicle per minute) and speeds (mph) on locally managed A roads

Area	Delay 2015	Delay 2016	Delay 2017	Delay 2018	Speed 2015	Speed 2016	Speed 2017	Speed 2018
Wokingham	38.8	41.3	42,1	40,5	28.6	27.8	28.0	28.4
South East	35.4	36.6	37.5	37.6	28.5	28.1	28.2	28.0
England	44.6	45.9	46.9	47.1	25.5	25.2	25.2	24.9

Source: 2018 DfT Road Congestion Statistics (CGN0501b and CGN0502b)

16.6.3. Figure 16-12 shows the congestion levels across the Borough on a typical Tuesday during the AM peak, as reported by Google Traffic.

Figure 16-12 - Map showing AM peak congestion levels across Wokingham Borough



Source: Google Maps traffic data (typical Tuesday 08:30)

16.6.4. Figure 16-12 above shows that, during a typical AM peak, very slow-moving traffic can be expected in the following locations:

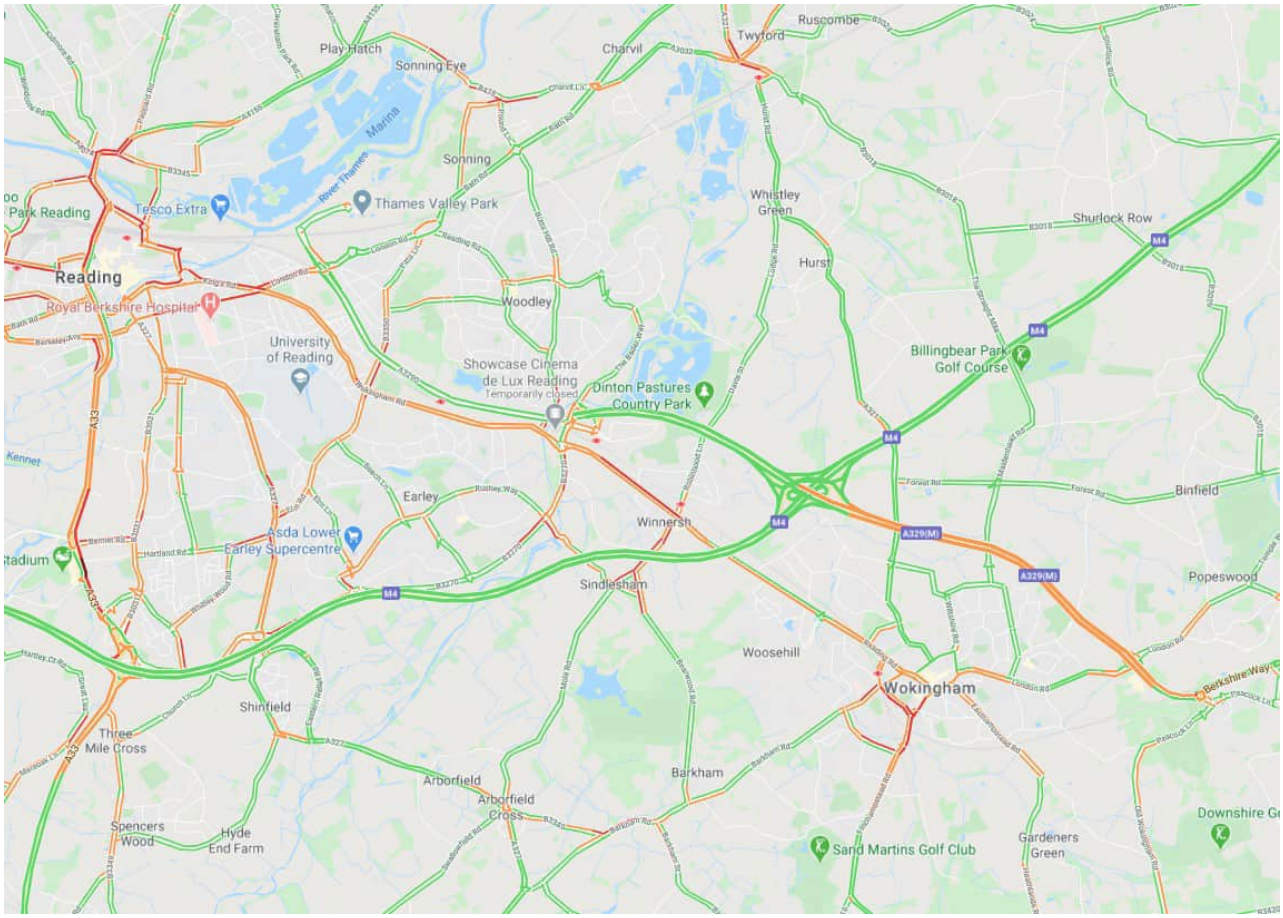
- Approaching Wokingham town centre on the A321 Finchampstead Road, A329 Reading Road, B3349 Barkham Road, A329 London Road and Easthampstead Road.
- The A329 northbound approach to the A329/Binfield Road and Winnersh Crossroads.
- Southbound/westbound approaches to the A329 Reading Road/Loddon Bridge junction.
- The A329(M) northbound in vicinity of the Coppid Beech Roundabout.
- All routes passing through Sindlesham, Arborfield Cross, Black Boy Roundabout in Shinfield and Twyford crossroads.
- The B3270 Lower Earley Way eastbound and Rushey Way southbound approaches to the B3270/Rushey Way/Mill Lane roundabout.
- The Bader Way southbound towards Winnersh Triangle.
- The B3350 Church Road southbound approach to Three Tuns crossroads in Earley.
- The northbound A327 Shinfield Road approaching the junction with Whitley Wood Road.

- The northbound A33 and northbound B3349 Basingstoke Road approaching Three Mile Cross.
- The westbound B3349 approaching the A33 roundabout in Riseley.
- The B478 Playhatch Road in both directions at Sonning Bridge; and
- The A3032 Old Bath Road/A4 Bath Road/B478 Charvil Lane roundabout.

16.6.5. In addition, one other location (not shown on Figure 16-12 above) where very slow-moving traffic can be expected is at the junction of the A321 Wargrave Road and the A4130 White Hill near Henley-on-Thames.

16.6.6. Figure 16-13 below shows the congestion levels across the Borough on a typical Tuesday during the PM peak period, as reported by Google Traffic.

Figure 16-13 - Map showing PM peak congestion levels across Wokingham Borough
Map showing PM peak congestion levels across Wokingham Borough



Source: Google Maps traffic data (typical Tuesday 17:30)

16.6.7. Figure 16-13 above shows that congestion during the PM peak is generally not as severe as during the AM Peak, although very slow-moving traffic can be expected in the following locations:

- Approaching Wokingham town centre on the B3349 Barkham Road.

- Leaving Wokingham town centre on the A321 Finchampstead Road.
- Both directions of Wellington Road in Wokingham town centre, between Finchampstead Road and Barkham Road.
- Eastbound along Molly Millars Lane approaching the Finchampstead Road roundabout.
- The A329 Reading Road southbound and the B3030 Robinhood Lane westbound approaching Winnersh crossroads.
- The B3350 Church Road southbound and A329 Wokingham Road eastbound approaches to Three Tuns crossroads in Earley.
- All routes passing through Sindlesham and Twyford crossroads.
- The B3270 Lower Earley Way eastbound and Mill Lane northbound approaches to the B3270/Rushey Way/Mill Lane roundabout.
- Beeston Way southbound in Lower Earley, approaching the B3270 roundabout.
- The southbound and westbound approaches to the A329 Reading Road/Loddon Bridge Road junction.
- The northbound A327 Shinfield Road approaching the junction with Whitley Wood Road.
- The westbound B3349 and the southbound A33 approaching the A33 roundabout in Riseley; and
- The B478 Playhatch Road in both directions at Sonning Bridge.

16.6.8. As in AM peak, one other location (not shown on Figure 16-13 above) where very slow-moving traffic can be expected is at the junction of the A321 Wargrave Road and the A4130 White Hill near Henley-on-Thames.

16.6.9. In addition, in September 2019 Reading Buses provided the Borough with their top ten congestion locations affecting bus routes in the Borough which support the Google Traffic data.

16.6.10. Away from the areas of congestion highlighted above, significant journey delays can still occur due to temporary factors such as road traffic accidents, road works, poorly parked vehicles and slow-moving vehicles.

16.7 Wokingham Borough Council Permit Scheme

16.7.1. To improve management of roadworks and reduce unnecessary disruption to road users, Wokingham Borough Council implemented a permit scheme in January 2015. The scheme allows the Borough greater control over works taking place on its network and ensure that works are expedited and are undertaken in the most efficient manner. The increased discipline required under permitting has improved existing processes within works promoter organisations, which has enhanced the quality of information relating to proposed works received by the permit authority.

16.7.2. The permitting rules have also served to highlight the importance of providing early and detailed information concerning planned works to assist in the coordination process. The permit authority has made effective use of the new powers and have worked closely with the utility companies and their own highway authority promoters to ensure that those

powers have been applied in a reasonable and competent manner. The combined effect of these powers has contributed to improved network coordination and reduced disruption, key to the Borough fulfilling its Network Management Duty.

16.7.3. In addition, there was increased discipline amongst highway promoters, improved planning and scheduling of works, a shift to larger scale works, improved public perception and an improved relationship between the Council and all activity promoters.

16.8 Parking

16.8.1. Wokingham Borough currently have responsibility for managing and enforcing all on-street parking, and off-street parking in Council owned off-street car parks and Park & Ride sites. It also has a level of influence over privately owned and operated off-street car parks through planning controls.

16.8.2. Currently, across the Borough, there are 23 public car parks run by the Council providing up to

- 1,223 spaces with 70 spaces specifically designated for Blue Badge holders in Wokingham town centre.
- 547 spaces in Woodley (12 spaces for Blue Badge holders).
- 50 spaces in Finchampstead (2 spaces for Blue Badge holders)
- 40 spaces in Shinfield without any designated spaces for Blue Badge holders.
- 45 spaces in Earley (2 spaces reserved for Blue Badge holders)
- 39 spaces in Twyford (2 spaces specifically designated for Blue Badge holders), and
- 32 spaces in Wargrave and 1 space is reserved for Blue Badge holders.

16.8.3. The Borough also has four Park & Ride sites.

16.8.4. Winnersh Park & Ride was recently expanded to 378 spaces and is located on the edge of Winnersh Triangle Business Park; since the expansion a bus service has not been provided by the bus operator as, following the pandemic, they have not been confident in providing a commercial service; WBC and the bus operators are continuing to work together to assess when a new service will come into operation.

16.8.5. Mereoak Park & Ride has 573 parking spaces and two rapid vehicle electric charging points. It is located off the A33, just south of M4 Junction, and provides a bus service to Reading approximately every 15 minutes. The £1 daily parking cost is included as part of the bus ticket.

16.8.6. A third Park & Ride site provides 258 parking spaces located south of the River Thames and west of the Thames Valley Business Park at Thames Valley. Again the lack of demand following the pandemic has mean that the original plans for the site have changed; this site currently serves Reading Hospital, providing parking for both staff and visitors as well as an additional service serving Heathrow Airport.

16.8.7. Lastly, Coppid Beech Park and Ride was completed in 2022. Since completion, the site has yet to open due to the demand issues described above.

17 Road Safety

17.1 Overall Collision Trends

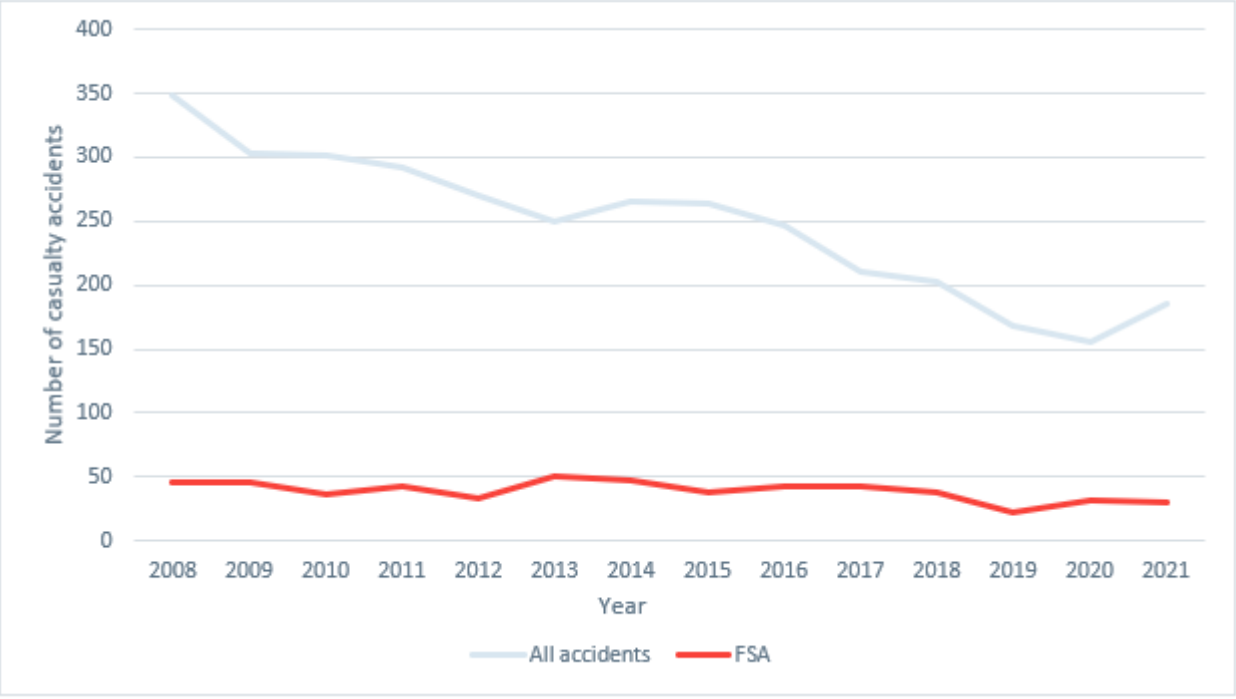
17.1.1. The number of casualties of any severity and the number of casualties involving death or serious injury (KSI) in Wokingham Borough since 2008 are plotted in Figure 17-1.

17.1.2. This figure shows that the number of road traffic collisions resulting in casualties of any severity on Wokingham Borough roads has generally been falling year-on-year. In 2008 there were 349 accidents involving casualties of any severity, but in 2021 this number had fallen to 186, a drop of 47%.

17.1.3. The number of traffic accidents on Borough roads that resulted in a fatality or serious injury (FSA) has fallen, albeit with at a slower rate, with 30 FSA in 2021 compared with 45 in 2021.

17.1.4. The number of collisions tends to fluctuate, with a low of 22 in 2019 and a high of 50 in 2013. The number of fatalities has been between 1 and 5 for each of the last 10 years.

Figure 17-1 - Number of casualty road traffic accidents in Wokingham Borough

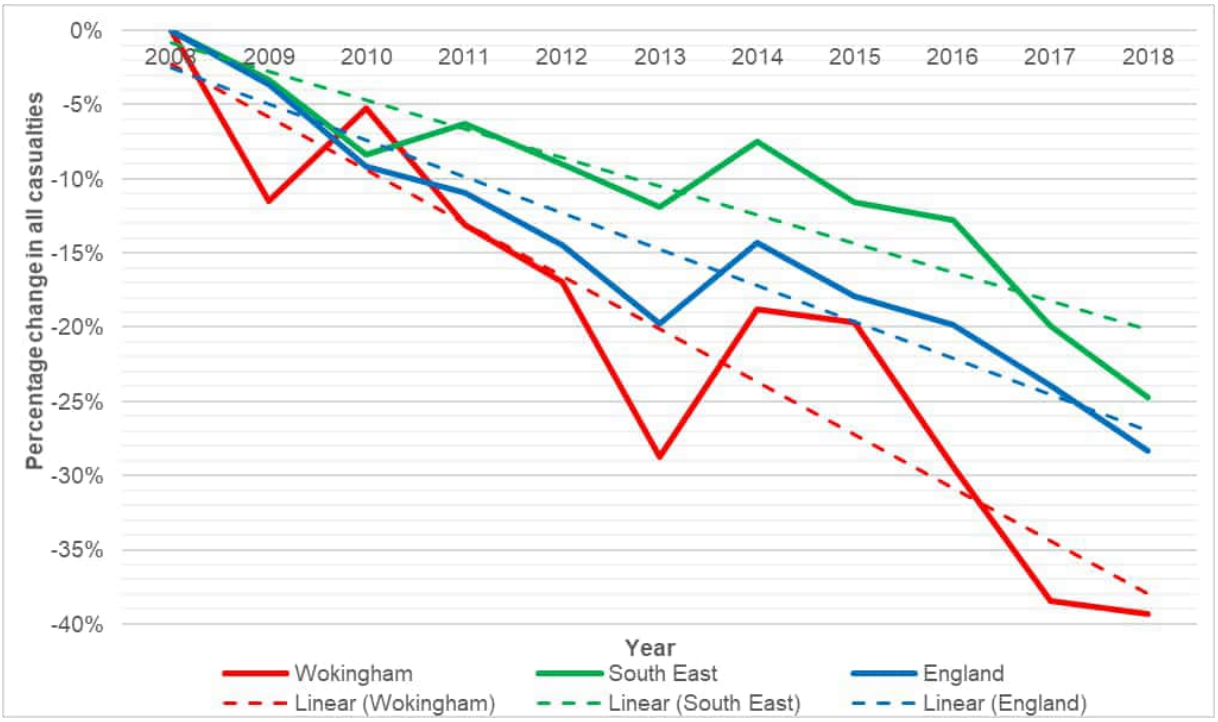


Source: DfT Road Safety Data 2021

17.1.5. Figure 17-2 below provides a comparison of the casualty reduction rates achieved for all casualties and KSI casualties since 2008 in Wokingham Borough compared with the South East and England, respectively. This shows that rate of reduction in all casualties on Wokingham Borough roads since 2008 was greater than both the regional and the national

rate, with the 39% reduction achieved in Wokingham exceeding the 25% and 28% reductions achieved regionally and nationally respectively.

Figure 17-2 – Comparison of percentage change in all casualties since 2008



Source: DfT Road Safety Data 2019 (RAS30038)

17.1.6. Table 17-1 compares the 2018 road casualty data for Wokingham Borough with regional, national and the five other unitary authorities that govern Berkshire. The Borough comes in the top three in all eight measures with Wokingham Borough at or below the regional and national average.

Table 17-1 - 2018 casualty rates for the six unitary authorities that govern Berkshire

Unitary authority	Casualty rate per billion vehicle km	Casualty rate per million population	Casualty rate per thousand licensed vehicles	Km of road per casualty	Km of road per fatality	Km of road per serious casualty	Km of road per slight casualty	Fatalities as % of all casualties
Reading	605	2,016	15.1	1.2	396.3	8.8	1.4	0.3%
Slough	422	2,455	3.9	0.9	46.3	7.0	1.0	1.9%
Bracknell Forest	172	1,044	4.9	3.7	157.0	33.6	4.3	2.4%
Wokingham	**163**	**1,595**	**8.0**	**2.9**	**257.1**	**21.4**	**3.4**	**1.1%**
Windsor and Maidenhead	156	1,895	9.5	2.4	137.2	15.6	2.9	1.7%
West Berkshire	93	1,836	7.1	4.9	177.2	27.8	6.1	2.7%

Unitary authority	Casualty rate per billion vehicle km	Casualty rate per million population	Casualty rate per thousand licensed vehicles	Km of road per casualty	Km of road per fatality	Km of road per serious casualty	Km of road per slight casualty	Fatalities as % of all casualties
South East	285	2,786	13.3	1.9	187.0	11.1	2.3	1.0%
England	321	2,616	14.1	2.1	200.1	13.3	2.5	1.0%

Source: DfT Road Safety and Traffic Data 2019 (RAS30038, RAS30040, RAS30045, RDL0202 and VEH0105)

17.1.7. Long term casualty trends are influenced by a number of factors, some outside the control of the Council (including vehicle technology, in car safety features and weather conditions) and factors where the Council can exert more influence including:

- Driver behaviour - targeted education, publicity and training work targeted at both high-risk groups (i.e., motorcyclists and young drivers) and high-risk behaviours (drink driving).
- Road conditions - maintenance practices such as road surface quality/traction, drainage, vegetation impacting visibility and time to react to faults.
- Highway design and speed limits – changes to road character/design, lower speed limits, or new facilities such as pedestrian crossings or enhanced street lighting.

Change in Casualty Reporting System

17.1.8. In January 2018, Thames Valley Police introduced online reporting of collisions through the Single Online Home project. This is also being progressively adopted by some other forces. Following the adoption of online reporting, Thames Valley Police saw a 48% increase in the number of casualties in self-reporting accidents from 742 in 2017 to 1,099 in 2018.

17.1.9. This suggests that online reporting is leading to more accidents being reported in the Thames Valley. Whilst it is too early to draw firm conclusions on its impact, the potential influence on collision statistics of online reporting should be borne in mind.

17.2 Casualties by Age and Gender

17.2.1. Figure 17-3 shows the breakdown of casualties from road traffic accidents in Wokingham Borough by gender and age grouping in 2008 and 2018 respectively.

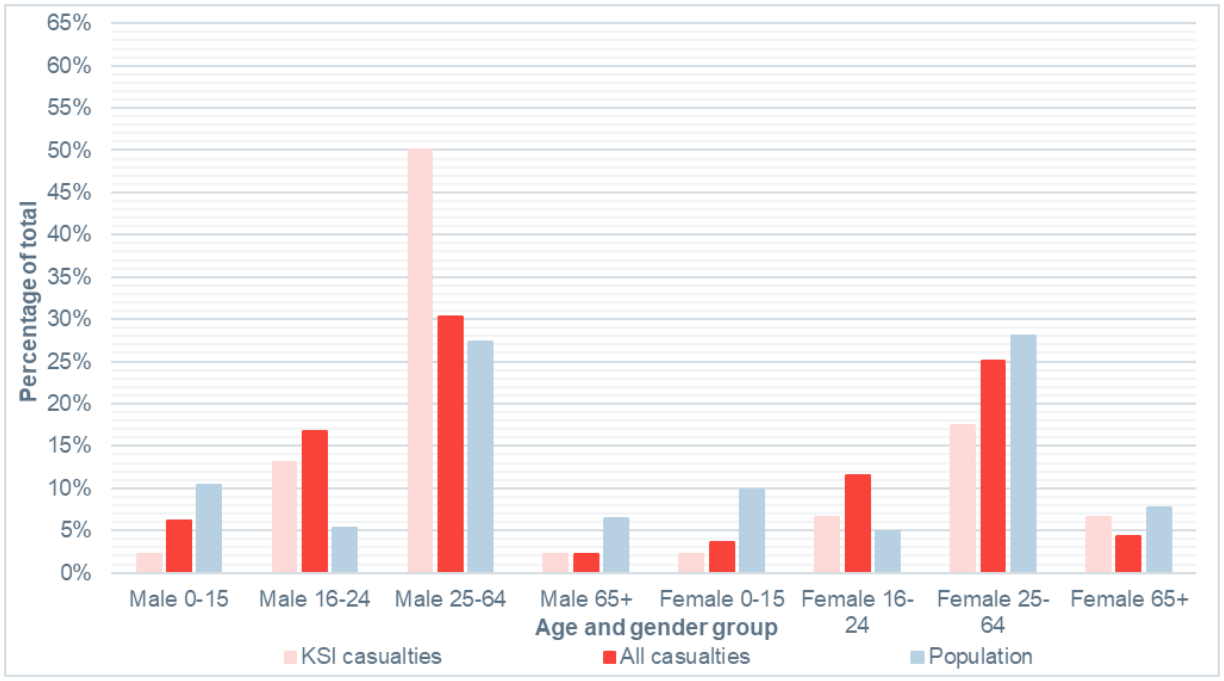
17.2.2. Analysis of all road accident casualties by gender and age group shows that since 2008, between 55% and 62% of all casualties have been male. The proportion of males in that are KSI casualties is even higher, at between 63% and 84% of all KSI casualties.

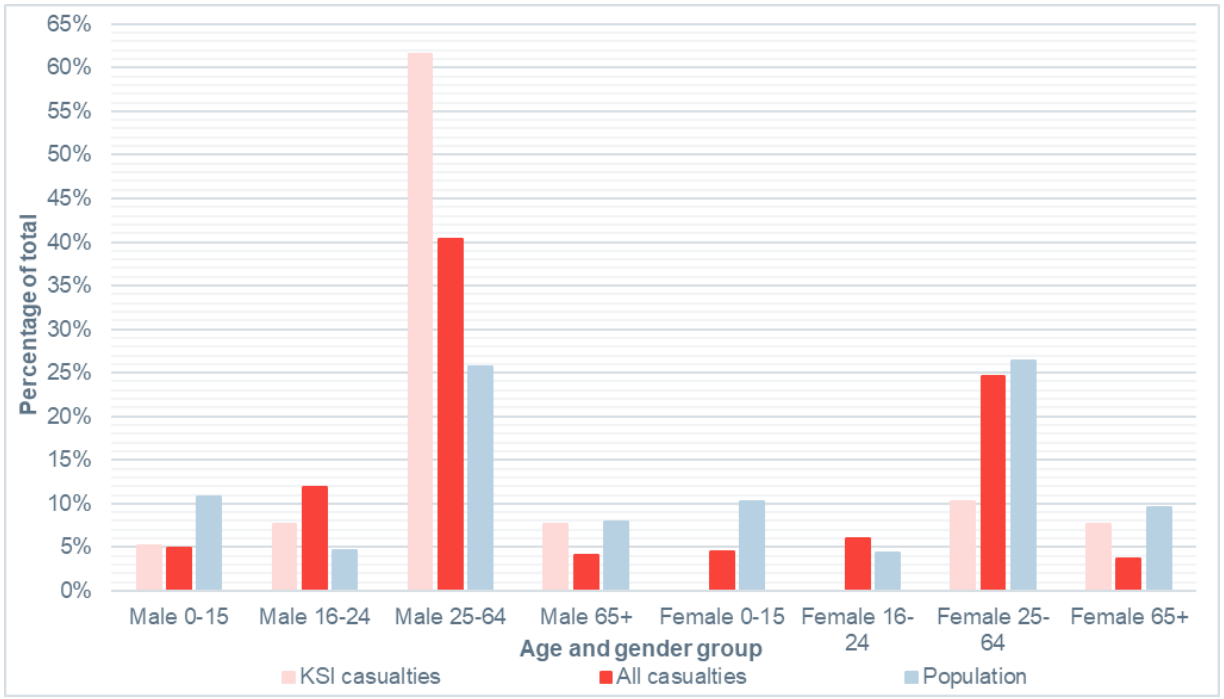
17.2.3. The figure also shows that males aged 25 to 64 experienced the highest proportion of all and KSI casualties of any age and gender group in both years. In 2008, 50.0% of KSI casualties and 30.3% of all casualties were male aged 25 to 64. In 2018, these figures rose significantly to 61.5% of KSI casualties and 40.3% of all casualties, despite the percentage of the population in this age and gender group falling from 27.3% to 25.7%. Conversely, there were approximately 5% falls in the proportion of all and KSI casualties in males aged 16 to 24 between 2008 and 2018, despite the population in this age and gender group falling less than 1%.

17.2.4. The proportion of all casualties in females aged 25 to 64 showed little change between 2008 and 2018 and the proportion of KSI casualties fell from 17.4% in 2008 to 10.3% in 2018. There were also falls in the proportion of all and KSI casualties in females aged 16 to 24 with the proportion of all casualties falling from 11.5% in 2008 to 6.0% in 2018 and the proportion of KSI casualties falling from 6.5% in 2008 to zero in 2018.

17.2.5. People aged 65 and over accounted for 7.8% of all casualties and 15.4% of KSI casualties in 2018. This represents an increase compared with 2008, when they accounted for only 6.6% of all casualties and 8.7% of KSI casualties. However, this is a lower increase than the increase in the population of people over 65 from 14.1% in 2008 to 17.6% in 2018.

Figure 17-3 - Casualties by age and gender group from collisions in Wokingham Borough in 2008 (above) and 2018 (below)





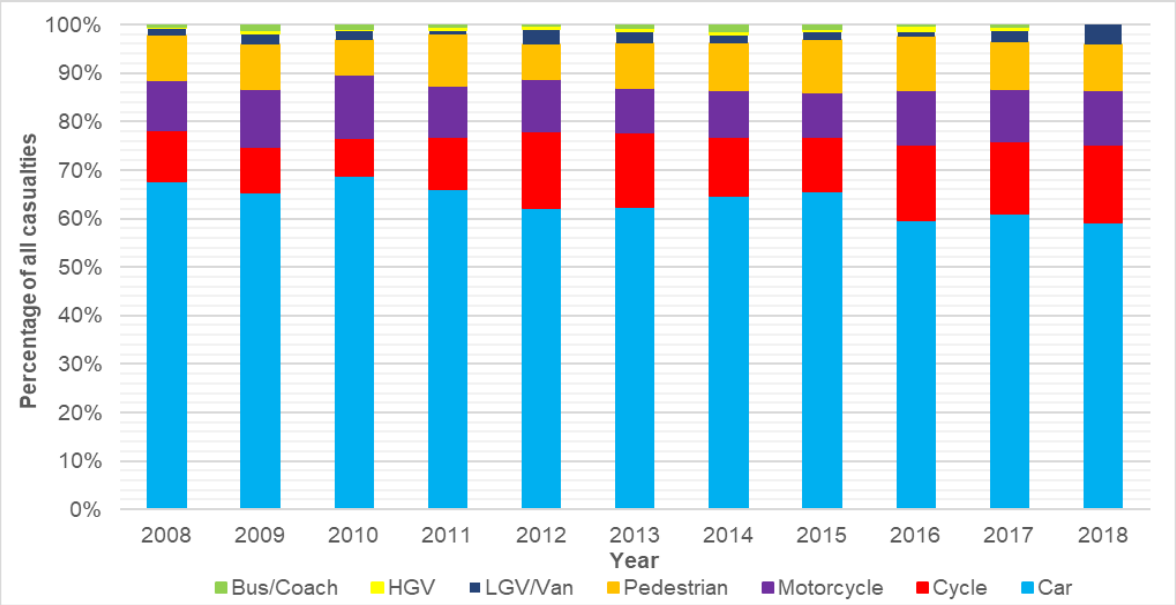
Sources: DfT Road Safety Data 2019 and ONS 2018 mid-year population estimates, Crown Copyright 2019

17.3 Casualties by Mode

17.3.1. Figure 17-4 below shows the breakdown by road user type of all casualties from road traffic accidents in Wokingham Borough between 2008 and 2018.

17.3.2. Whilst total casualty numbers have fallen significantly since 2008, the proportion of all casualties by road user type has generally shown little change. The two exceptions are car user casualties which have fallen from 67.7% of all casualties in 2008 to 59.2% in 2018 and cycle casualties which have risen from 10.5% of all casualties in 2008 to 16.1% in 2018.This is broadly consistent with the change in car and cycle trips observed over the period.

Figure 17-4 - All casualties from collisions in Wokingham Borough by user type

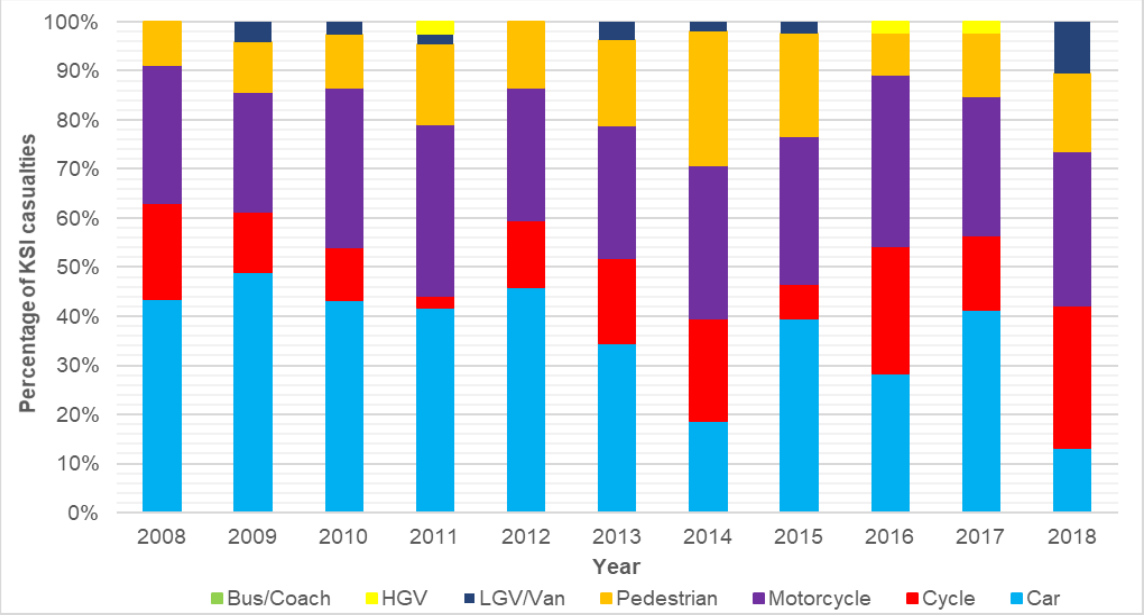


Source: DfT Road Safety Data 2019 (RS30043)

17.3.3. Although car users experience the highest proportion of all casualties, approximately 82% of all traffic in the Borough is by car and so car is not the highest risk mode.

17.3.4. Figure 17-5 below shows the breakdown by road user type of KSI casualties from road traffic collisions in Wokingham Borough between 2008 and 2018.

Figure 17-5 - KSI casualties from collisions in Wokingham Borough by user type



Source: DfT Road Safety Data 2019 (RS30043)

17.3.5. The proportion of KSI casualties attributed to car users was 43.5% in 2008 and fell to its lowest level in 2018 of 13.2%. Conversely, the proportion of KSI casualties attributed to cyclists was 19.6% in 2008, and this rose to its highest level in 2018 of 28.9%.

17.3.6. In 2018, approximately 75% of KSI casualties were pedestrians, cyclists or motorcyclists. The highest risk mode is motorcycle, as although less than 1% of traffic is by motorcycle, motorcyclists accounted for 11.2% of all casualties and 31.6% of KSI casualties.

17.3.7. There were no bus or coach user KSI casualties in any year and HGV user KSI casualties were only recorded in 2011, 2016 and 2017.

17.4 Vulnerable Road Users

17.4.1. Table 17-2 presents a comparison between 2008 and 2018 of the key pedestrian, cyclist and motorcyclist casualty statistics in Wokingham Borough.

17.4.2. It shows that whilst the number of all pedestrian casualties has fallen significantly since 2008, the proportion of the total in each of the groupings above has shown little change. The exception to this is for the fall in the proportion of all pedestrian casualties on non-dry roads which more than halved from 25% to 12%. The casualties split by gender is broadly even.

17.4.3. Between 2008 and 2018, the number of all cyclist casualties fell slightly from 46 to 43. There was again a reduction in the proportion of all cyclist casualties on non-dry roads which fell from 26% in 2008 to 16% in 2018. The biggest change was in the proportion of all cyclist casualties affecting children under 16, which fell from 35% in 2008 to just 9% in 2018.

17.4.4. The number of all motorcyclist casualties has also fallen since 2008. The only significant fall was in the proportion of all motorcyclist casualties on non-dry roads which more than halved from 63% in 2008 to 27% in 2018.

Table 17-2 - Comparison of pedestrian, cyclist and motorcyclist casualty statistics

All casualties	Pedestrian 2008	Pedestrian 2018	Cyclist 2008	Cyclist 2018	Motorcycle 2008	Motorcycle 2018
Total number	40	25	46	43	46	30
Male	21 (53%)	13 (52%)	37 (80%)	37 (86%)	36 (78%)	29 (97%)
Children under 16	9 (23%)	6 (24%)	16 (35%)	4 (9%)	0	0
In urban areas	33 (83%)	19 (76%)	30 (65%)	29 (67%)	21 (46%)	11 (37%)
On roads with speed limit over 40mph	3 (8%)	2 (8%)	5 (11%)	2 (5%)	14 (30%	8 (27%)
On slip roads or at junctions or entrances	15 (38%)	8 (32%)	36 (78%)	32 (74%)	29 (63%)	21 (70%)
In dark and unlit locations	1 (3%)	1 (4%)	0	2 (5%)	4 (9%)	4 (13%)
On non-dry roads	10 (25%)	3 (12%)	12 (26%)	7 (16%)	19 (63%)	8 (27%)
In roadworks	1 (3%)	3 (12%)	1 (2%)	2 (5%)	1 (2%)	4 (13%)

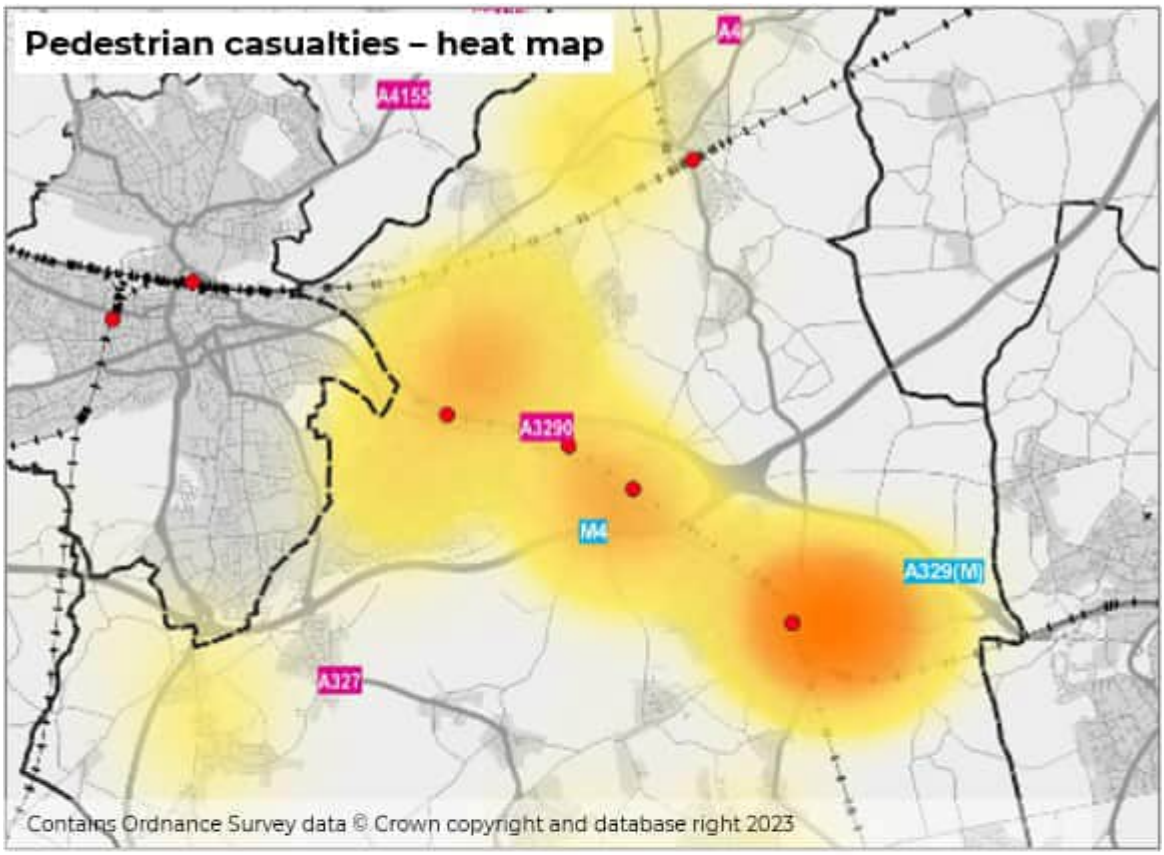
Source: DfT Road Safety Data 2019 (STATS19)

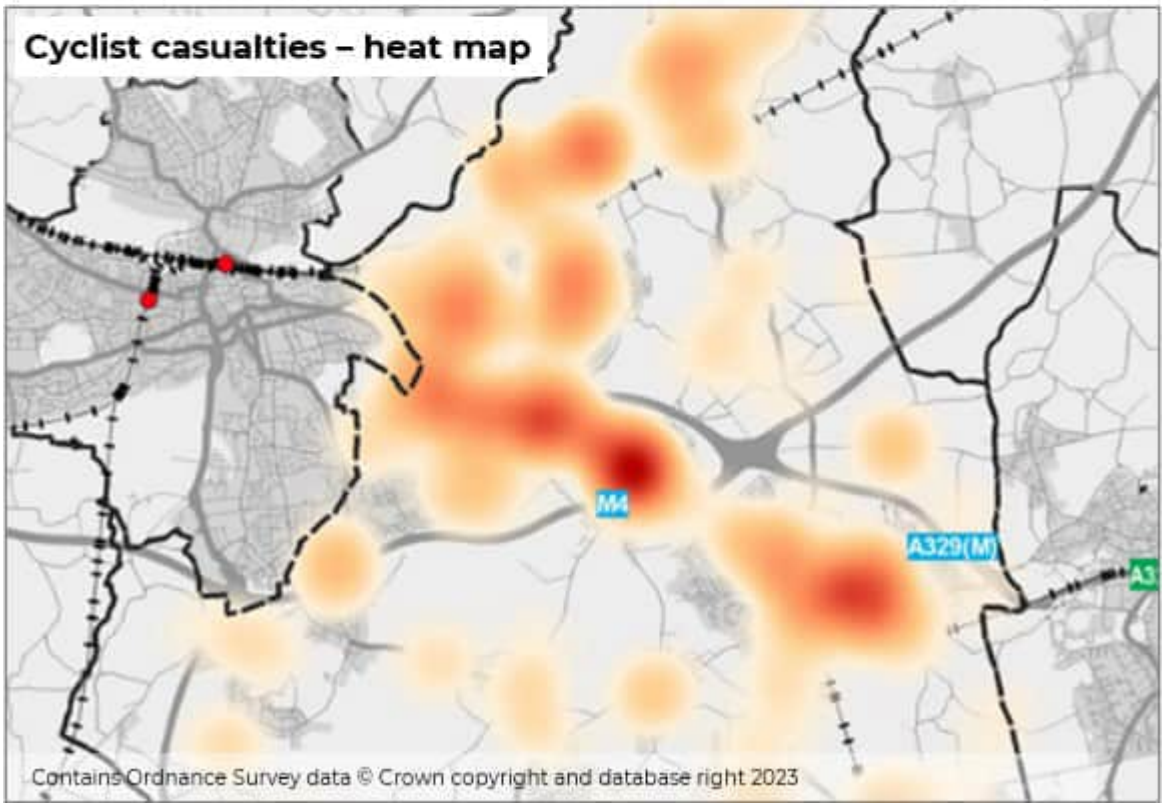
17.4.5. An overview of the areas of higher density of collisions involving pedestrians and cyclists is shown in Figure 17-6.

17.4.6. This figure highlights the highest number of pedestrian collisions being focused around Wokingham Town Centre, Winnersh (A329 Winnersh Crossroads area and Robin Hood Lane), Lower Earley (A329 Showcase roundabout area), Charvil, Shinfield and within Woodley and Lower Earley. Cyclist casualties are also prevalent in Twyford (B3018) and the B3290 Black Boy Roundabout

17.4.7. This typically, but not exclusively, reflects the higher level of pedestrian and cycle activity in these areas.

Figure 17-6 - KSI casualties from collisions in Wokingham Borough by user type





17.5 Route Analysis

17.5.1. Analysis of the comparative performance of different routes for the period from 2016 to 2021 has also been undertaken to identify the relative collision performance of different routes in Wokingham Borough. The routes were assessed by considering:

- Overall number of collisions
- Number of KSIs
- Fatally weighted injury (FWI) scoring
- Distance weighted FWI score (taking account length of route)

17.5.2. The Fatality weighted Injury (FWI) score is derived from the severity of each casualty in a collision, where a fatal collision I s 10, a serious casualty a 5 and a slight casualty a 1. Considering the metrics above, routes are given a distance weighted FWI score, summarised in Figure 17-7 below.

Figure 17-7 - Comparison of road safety performance by route

Route	Fatal	Serious	Slight	Total	KSI	FWI	Length (km)	Col/km	KSI/km	FWI (Distance-weighted)
A329	0	21	104	125	21	244	12.4	10	2	20
B3350	1	0	28	29	1	48	3.8	8	0	13
A4	1	6	61	68	7	135	14.8	5	0	9
B478	1	2	3	6	3	23	1.7	4	2	14
B3270	0	3	13	16	3	33	5.2	3	1	6
B3030	0	3	18	21	3	42	8.7	2	0	5
B3430	0	2	14	16	2	28	6.7	2	0	4
A3032	0	2	8	10	2	21	4.3	2	0	5
A327	0	8	19	27	8	68	11.7	2	1	6
A321	0	8	47	53	8	97	23.1	2	0	4
B3349	0	8	21	29	8	162	12.7	2	1	13
A4130	0	4	5	9	4	28	4.4	2	1	6
A329M	0	6	27	33	6	64	19.4	2	0	3
A3290	0	4	14	18	4	47	11.1	2	0	4
B3348	1	1	5	7	2	22	4.7	1	0	5
B3016	0	1	2	3	1	10	2.1	1	0	5
B3034	0	0	5	5	0	6	3.6	1	0	2
A33	0	3	10	13	3	29	12.7	1	0	2
B4446	0	0	1	1	0	1	1.2	1	0	1
B3024	0	0	2	2	0	2	2.7	1	0	1
B3018	0	0	1	1	0	2	2.2	0	0	1

17.5.3. Based on the results above, the following with the highest risk to road safety have been identified:

- A329 Winnersh to Reading
- A329 Wokingham to Winnersh
- B478

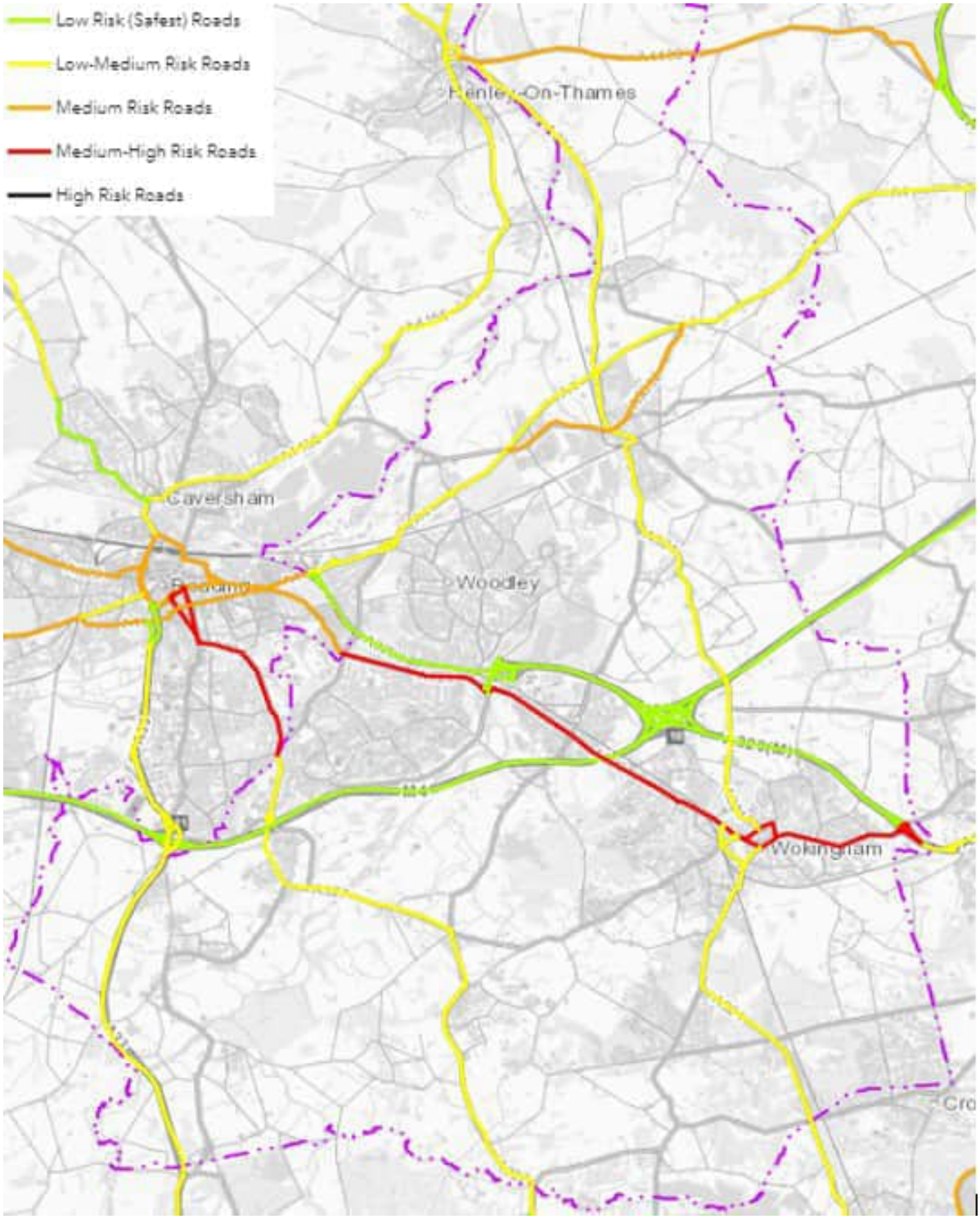
- A329 Coppid Beach Roundabout to Wokingham
- B3349
- A4 Charvil to Hare Hatch

17.5.4. The B3350 was identified as a high-risk route at the summary level, however the lower number of serious incidents gives it a lower collision severity.

17.5.5. A further indication is provided by the Road Safety Federation European Road Assessment Programme (EuroRAP). Within this, all motorways and A roads are given a risk rating representing the statistical risk of death or serious injury occurring by comparing the frequency of road crashes resulting in death and serious injury on every stretch of road with how much traffic each road is carrying. Figure 17-7 below shows the EuroRAP rating for the motorways and A roads in Wokingham Borough (2015-2017).

17.5.6. Figure 17-7 shows that Wokingham Borough has no high-risk road sections, but the entire section of the A329 within the Borough is classified as a medium-high risk road. In addition, the Borough has two medium risk road sections. These are the entire section of the A4130 within the Borough and the A3032 which passes through Twyford.

Figure 17-8 - EuroRAP risk rating of motorways and A roads in Wokingham Borough for 2015-2017



Source: RSF EuroRAP 2019 Results Data Portal and OS Data, Crown Copyright 2019

18 Summary

18.1 Location and Demographics

18.1.1. Wokingham Borough is an inland unitary authority located between the urban areas of Reading and Bracknell. It is made up of fourteen parish councils and three town councils.

18.1.2. In 2021, Wokingham Borough had a total population of 177,500. The population had increased by 15% since 2011 (23,000 extra people), more than double the national average. Net migration was a significant contributor to this, with approximately 1000 people per year migrating from Reading into Wokingham.

18.1.3. There are 992 people per square km in the borough, more than double the national average of 430 people per square km.

18.1.4. The population of the borough is centred around three main urban areas – Wokingham town Centre, Earley and Woodley and a large rural area including smaller settlements, such as Twyford, Finchampstead and Arborfield Green.

18.1.5. Wokingham town Centre is the largest urban settlement containing over a quarter of the total population of the borough and is the commercial, cultural and administrative centre.

18.1.6. The English Index of Multiple Deprivation (IMD) shows that Wokingham Borough is the second least deprived local authority in England (ranked 316 of 317). There are however some areas with greater levels of deprivation, with four LSOAs within the 4th most deprived decile in England.

18.2 Transport Emissions

18.2.1. Based on government data and estimated using the Department for Energy Security and Net Zero (DESNZ) method, Wokingham Borough's carbon footprint is 505 $ktCO_2$. These figures exclude sectors outside the council's control, such as the M4 which creates 100.02 $ktCO_2$ and diesel rail trains which contribute 6.19 $ktCO_2$.

18.2.2. Transport emissions contribute 162.93 $ktCO_2$ to the overall carbon footprint of the Borough in 2020 (32.2%). A roads account for 61.2 $ktCO_2$, minor roads account for 94.15 $ktCO_2$ and other modes of transport account for the least at 7.55 $ktCO_2$.

18.2.3. Air quality has a negative impact on the health of those who live within close proximity to areas of poor air quality. Within Wokingham Borough and across the UK, vehicle emissions are the primary reason for air quality breeches and the two components of exhaust gases of most concern for human health are nitrogen dioxide (NO_2) and particulate matter (PM).

18.2.4. There are three Air Quality Management Areas (AQMAs) in Wokingham Borough; Wokingham town Centre (Peach Steet, Broad Street, Shute End, Denmark Street and London Road), Twyford Crossroads (A321) and Wokingham M4 (either side of the M4).

18.2.5. Significant changes to the road layout around the M4 AQMA have taken place in the last 3 years and no tubes on the M4 corridor exceeded the legal limit. However, the NO_2 legal requirement of 40 µg/m3 was exceeded at Shute End in Wokingham town Centre and at Twyford Crossroads in 2019, with highest volumes recorded on the A3032 eastbound approach to the junction.

18.2.6. For 2020 and 2021, when traffic levels had been reduced through lockdowns in the COVID-19 pandemic, and the most recent 2022 data, emissions levels at all locations in Wokingham Borough are below annual NO_2 limit.

18.3 Environment

18.3.1. The quality of streets and highway space in all towns and villages is important to quality of life and makes Wokingham Borough an attractive place for people to live in, work in, or visit. Wokingham Borough's historic environment is one of the county's greatest assets and Historic England's (HE) National Heritage List for England (NHLE) highlights some 650 listed buildings in the Borough.

18.3.2. Within the borough there are 5 sites of special scientific interest, 2 Regionally Important Geological and Geomorphological Sites (RIGS), 11 registered commons and 11 National Nature reserves. Together this covers approximately 180 hectares, 1% of the total area of the Borough.

18.3.3. There are a number of different types of flooding that does or could affect Wokingham, and in 2010 Wokingham Borough Council became a Lead Local Flood Authority, responsible for managing local flood risk from surface water, groundwater and ordinary watercourses in Wokingham.

18.3.4. There only navigable waterway in Wokingham Borough is the River Thames which runs from Lechlade near Swindon through Reading and London into the sea to the south of Essex. Paths adjacent to the River Thames offer excellent opportunities for cycling and walking, with the 294km Thames Path forming part of the National Trail network.

18.3.5. Traffic and transport have a significant impact upon the built and natural environment. Transport infrastructure is a key determinant of the form of our towns and villages and roads are often the only modern man-made features in large areas of open countryside and design of these, levels of traffic and parking affects the quality of streetscapes and local amenity.

18.4 Health

18.4.1. Transport plays a significant role in people's health. This can include enabling access to services, enabling physical activity and the impact of emissions and noise on health.

18.4.2. According to the Office for Health Improvement and Disparities (OHID) Wokingham Borough has lower than average levels of health inequality. In the men the variation in life expectancy across the social gradient is 6.1 years and in women it's 4.5 years. This

compares with 9.7 years for men and 7.9 years for women at the national level for 2018-2020.

18.4.3. Wokingham Borough was one of the top 20 local authorities in England for physical activity (73.5% of adults considered physically active). However, the borough was one of the bottom 20 for physical activity in children and young people (43.9% considered physically active).

18.4.4. Obesity is however a growing issue in England and within Wokingham Borough. In particular, obesity levels in year six aged children (14.7%) have also seen a dramatic increase compared to reception aged children (7.2%). Inequalities do also exist, with those living in the more deprived areas of the borough more likely to be obese than average.

18.5 Economy and Employment

18.5.1. In 2022 in Wokingham Borough, 84.8% of the population were considered economically active people (Aged 16-64), of those 83% were employed. Since 2015 the number of economically active people (aged 16-64) has increased more than regional and national changes. and in 2022 unemployment rates fell to its lowest yet with 2.2% of the Wokingham Borough working aged population being unemployed.

18.5.2. The ONS annual population survey shows that the working age residential population of Wokingham Borough are highly qualified and only 3.8% of the population have no qualifications. This aligns with the affluence of the borough as well as how economically prosperous it is. This is further highlighted in terms of occupations with Wokingham having a higher percentage of people in management / director / senior roles, professional occupations and associate professionals / technical occupations than the national and regional averages.

18.5.3. Workplace and resident earnings are broadly similar within the borough, this shows that the borough provides high paid jobs for its residents as well as attracts highly paid workers into the borough. Average salaries are higher in Wokingham compared to the bordering local and unitary authorities and are significantly higher compared to national and regional averages.

18.5.4. The two main sectors in Wokingham Borough's economy are information and communication and real estate. People working in professional, scientific and technical, information and communications, business administration and education make up 50% of all jobs in the borough. This reflects the highly skilled nature of the borough.

18.5.5. There is a relatively high level of retention of people living and working within the borough. Of those that travel elsewhere for work, the most common areas are Reading and Bracknell.

18.6 Accessibility

18.6.1. Local facilities within Wokingham Borough are concentrated around the urban areas of Wokingham, Winnersh, Woodley, Earley and Shinfield. Outside of the main towns within Wokingham Borough, there are a more limited number of facilities in the rural parts of the Borough. 20 of the 99 LSOAs within Wokingham Borough are ranked within the top 10%

most deprived nationally in terms of travel distances by road from selected facilities and services.

18.6.2. The majority of residents in the borough, particularly those living within Wokingham, Winnersh, Woodley, Earley and Twyford are typically within close walking distance of schools.

18.6.3. However, there are parts of the Borough, such as Remenham and Aston in the north of the borough and Riseley in the south of the borough, where some residents are outside typical walking distance from the nearest school.

18.6.4. There are very high levels of car ownership across the Borough, with only 9.0% of households in the borough without access to a car compared to 16.9% regionally and 23.5% nationally. Car ownership within the borough reflects household types, with 60% of privately owned houses having two or more cars and vans but only 18% of socially rented households owning two or more cars and vans.

18.7 Digital Accessibility

18.7.1. The growth in digital access has led to significant changes in travel. The National Travel survey shows that each individual now made 13% less trips in 2019 than they did in 2000.

18.7.2. Digital access has particular significant impact on certain trip purposes. For example, there has been a large decrease in visiting friends and shopping ships, representing 1 in 4 shopping trips and 1 in 3 trips to visit friends.

18.7.3. The change in 2019 to 2020, reflecting the COVID-19 pandemic was even more stark, with commuting and business showing the largest change of any trip purpose. It is too early to tell the long-term impacts of those changes, although the drop in distance was greater than the drop in number of trips – possibly inferring that longer distance trips are those that are most likely to be being made digitally.

18.8 Travel Patterns

18.8.1. Overall, the following trend was broadly observed across all wards in the borough

- **35% within the borough.** For trips originating within the same area as residence, in towns the majority of trips are made on foot or by cycle with car dominant in more rural areas.,
- **35% to key destinations within 10 miles,** including Reading, Bracknell, Slough, Maidenhead and Windsor.,
- **30% elsewhere,** compromising 10% working in London, typically travelling by public transport and 20% work elsewhere, with private car used for over 90% of these trips.

18.8.2. In terms of mode of travel to work across Wokingham Borough, it is worth noting:

- A higher percentage of urban residents in Wokingham drive to work than nationally
- There is a higher car split for those in urban areas than rural areas

- The proportion of residence using public transport is higher in rural areas than urban areas,
- Driving is the most common mode for all the different trip distances
- For journeys to work under 2km in length, despite the short distance, walking only accounts for just over a third of trips, compared to almost half of trips being made by private car.

18.8.3. In terms of average distance travelled to work for residents within Wokingham Borough, this shows:

- 50% of people within the borough either work from home or travel less than 10km to work
- The most common distance to travel to work is 2-5km (17%)
- Over 1 in 4 commutes is less than 5km (28%)
- The Borough has significantly less very short (less than 2km) and very long (60km and over) distance commuters when compared with regional and national levels.

18.8.4. There is a relatively high level of self-containment of 15-20% in larger towns such as Wokingham and Woodley, and to a lesser extent Earley. A large proportion of these trips are made by walking or cycling, for example in Wokingham town Centre and Woodley almost 50% of commuter trips starting and ending in the town are made by walking or cycling.

18.8.5. Rail provides a relatively good level of service from Wokingham town Centre and within other more rural parts of the borough. There is a much lower percentage of people travelling by rail to Bracknell compared to Reading. For example, 32% of commuter trips to Reading from Wokingham town Centre are made by rail, this compares to 8% to Bracknell. Although there is an adequate rail service to both locations, car is still the dominant mode choice (60% to Reading, 84% to Bracknell). For travel to Slough, Maidenhead and Windsor car accounts for over 80% of trips.

18.8.6. Based on analysis of the travel patterns throughout the borough, three key typologies with different travel patterns have been identified. These are Wokingham town Centre, Reading facing towns (Woodley, Earley and Shinfield) and Market Towns & Rural Areas

18.8.7. For Reading facing towns, there is a relatively high level of walking and cycling of those that do work within the local town. In terms of travel to the rest of the borough, private car is the main mode making up 78% of trips, despite sustainable modes providing a feasible alternative. There is a large draw to Reading from Earley, Woodley and Shinfield with approximately 30% working in Reading. Although Reading is in close proximity and there is good public transport links to Reading, just 10% of trips are made by walking or cycling and approximately 20% are made by public transport.

18.9 Regional and Neighbouring Authority Transport Plans

18.9.1. Transport for the South East (TfSE) is the Sub-National Transport Board (STB) that covers Wokingham Borough and surrounding areas in the South East.

18.9.2. TfSE have produced a draft 30-year Strategic Investment Plan (SIP) for the South East which sets out 24 regional packages of complementary, multi-modal interventions. Schemes related to Wokingham include:

- Interurban cycleways
- Reading to Waterloo rail service enhancements
- M4 Mass Rapid Transit
- Reading/Wokingham/Bracknell A329 bus enhancements
- M4 J3 to J12 smart motorway
- M4 J10 safety enhancements
- A329 (M) smart corridor

18.9.3. The draft Reading Transport Strategy sets out aspirations for Reading and improving links into the town. Schemes relating to Wokingham within the strategy include:

- High quality bus and cycle corridors
- Green Park Station
- Winnersh Triangle, Mereoak and Thame Valley Park and Rides
- South Reading fast track public transport
- Third Thames Crossing

18.10 Future Development

18.10.1. Future development within the borough outlined in the adopted Core Strategy (January 2010) and sets most proposed new development of the borough until March 2026. The strategy planned for at least 13,230 new dwellings being delivered over the plan period (2006 – 2026). Most of the development sites within this sit just outside of the Reading facing towns / Wokingham town Centre or within the rural areas and Market Towns.

18.10.2. Wokingham Borough Council is currently updating the Local Plan which will also help to shape the future of Wokingham. It will give guidance on how and where growth will take place in the years up to 2038. The latest draft included a proposed strategic development in the Hall Farm / Loddon Valley area. It also identifies the location of the four existing SDLs, these are: Arborfield Garrison, South of the M4, North Wokingham and South Wokingham which will continue to deliver housing and infrastructure during the new plan period. It should be noted that the Local Plan Update is a draft document and subject to change.

18.11 Active Travel

18.11.1. Highest levels of active travel in the borough are in Wokingham town and the Reading facing towns such as Earley, Woodley and Shinfield. There are also relatively high levels in smaller settlements such as Twyford whereas in rural areas, where the distance between origins and destinations is much greater and facilities for pedestrians are inconsistent, walking levels are typically lower.

18.11.2. Cycling provision varies through the borough with a mixture of on and off carriageway facilities available. This includes existing greenways, public rights of way and National Cycle Network Routes. Again, there is a high demand for cycling in the larger town centres, albeit unlike walking it is less common in the smaller urban areas.

18.11.3. Active travel directly aligns with the goals of the Climate Emergency Action Plan (CEAP) which includes a target to increase active travel by 10% to assist in reducing carbon emissions. Initial steps have been made to begin producing a Local Cycling and Walking Investment Plan (LCWIP) for the borough. The initial stage of this work has included beginning to identify core walking zones, with Wokingham town Centre being the first, and a primary and secondary active travel network between the major development, employment and retail hubs within the borough.

18.11.4. Through the LCWIP development respective walking and cycling heat maps identify different corridors within the borough with highest demand for walking and / or cycling. The key corridor identified with the highest level of walking and cycling demand is the A329 which links Wokingham to Reading via Winnersh and Earley. Other key corridors include:

- A321 Finchampstead Road
- B3270 Lower Earley Way
- A4 Bath Road
- B3349 Barkham Road

18.11.5. There is a large network of Public Rights of Way (PRoW) which make up a large proportion of the walking and cycling facilities available outside of the town centres. Plans and strategies to help improve walking and cycling facilities, including PRoW, include the Public Rights of Way Improvement Plan, adopted March 2020, and the Greenways Strategy Plan.

18.12 Public Transport – Provision and Use

18.12.1. Public transport use varies across the borough. The 2011 Census Data suggests that rail accounts for the vast majority of public transport trips for residents in Wokingham town centre and within rural communities, especially Twyford and Wargrave. However, in the Reading facing towns such as Winnersh, Earley and Shinfield bus is a more dominant choice in terms of public transport over rail.

18.12.2. There are six railway stations located through the borough. These are Twyford (on Paddington line with links to London and South West), Wargrave (on branch line between

Twyford and Henley-on-Thames), and Earley, Winnersh Triangle, Winnersh and Wokingham on the London Waterloo to Reading line. There are also stations close to the borough border at Crowthorne and Reading Green Park.

18.12.3. Rail patronage has decreased across the Borough over the last 10 years, with an average decrease across all railway stations of 46% between 2010 and 2021. However, there have been significant reductions in the last 2 years following the COVID-19 pandemic. Wokingham Station and Twyford Station are the busiest stations and had shown a steady annual increase in patronage up until 2019.

18.12.4. Wokingham Station has local services running to Reading and Bracknell, as well as services to Guildford and London Waterloo. Services from Wokingham also link to Guildford and Gatwick Airport. Reading Station offers interchange to destinations across England and a key employment destination for the borough. The opening of the new Elizabeth Line in May 2022 has further improved the level of service between Twyford and London.

18.12.5. Local train services run between Wokingham Winnersh Triangle, Winnersh, Earley and Reading approximately every 15 minutes. Bracknell Station, on the London Waterloo line, is another key employment destination outside of the borough and services run approximately every 30minutes from Wokingham to Bracknell.

18.12.6. Rail mobility plans have been produced for all stations in the borough to improve access and interchange to the stations. These plans include promoting and supporting the improvements outlined in the LCWIP as well as creating micro-mobility hubs, demand responsive transport and improved infrastructure at the stations such as secure cycle parking.

18.12.7. The level of bus service is varied, with high frequency services on the A327, A329, A33/B££$9 and A4/A421 corridors. There are also local town services in Woodley, Earley and Wokingham. Throughout the rest of the borough there is a much lower level of service with most routes having a frequency of 1-2 buses per hour. The Council has an important role in delivering bus services as many services require subsidies to be operational.

18.12.8. Bus patronage within the borough had been growing at a much greater rate than the regional and national increases, with particularly large increases in 2013/2014 and again 2017/2018.

18.12.9. National express is the main coach provider throughout the borough and provides regular services to Brighton, London Gatwick Airport, Heathrow Airport and many other locations. Mereoak Park and Ride is the main location where the coaches depart from in the borough.

18.12.10. Taxis and Private Hire Vehicles (PHVs) enhances accessibility for people without access to a car. Although nationally their usage has been growing, there has been a 10% decrease in the number of taxis and 30% decrease in the number PHVs operating in Wokingham Borough between 2013 and 2019.

18.12.11. Heathrow Airport is approximately 40km east from Wokingham town Centre and accessible by car, coach and rail from the Borough. Gatwick Airport is approximately 75km

from Wokingham town Centre, it can also be accessed by car, coach and rail. Birmingham and Southampton airports are also accessible by rail from Wokingham.

18.13 Shared and Future Mobility

18.13.1. Transport for the South East have published their Future Mobility Strategy which divides the region into four key areas each with a set of intervention 'bundles' attached to each order from high to low priority. High priority intervention bundles within the Borough include:

- Hubs (mobility / community asset / service)
- Digital-as-a-mode communications and services
- Shared mobility – digital demand responsive transport (DDRT)
- Shared mobility – business to customer vehicle sharing (e.g., car clubs)

18.13.2. Wokingham Borough Council have published a low emission transport strategy which sets out a list of measures to decarbonise transport within the Borough. Key measures include increase EV uptake through defining the requirements for EV charge points in new developments, increasing awareness and developing a long-term EV uptake strategy. The strategy also identifies creating a low emission car club scheme as an intervention that can be delivered in the short term.

18.13.3. Demand for a car club is likely to be highest in Twyford and Wokingham town Centre. Operator insight goes on to suggest that car clubs are more effective and secure in on-street parking bays than in new developments / car parks.

18.13.4. An electric vehicle strategy is also being developed for the borough. This shows that by 2025, EV uptake is predicted to be highest in Wokingham town and Winnersh, in the Reading facing towns, Finchampstead and Twyford. However, gap analysis in EV charging infrastructure shows that there is currently not enough EV charging infrastructure to provide for the predicted growth in demand.

18.14 Freight

18.14.1. Road freight is the dominant method for transporting freight in Wokingham, within the majority of freight trips originating and ending within the local counties. In Berkshire, Buckinghamshire and Oxfordshire, 52% of the inbound freight into these areas originated from within these three counties. Similarly, 59% of all outbound freight from the Berkshire, Buckinghamshire and Oxfordshire area, was delivered to destinations within these three counties.

18.14.2. The three busiest road freight corridors through the borough are the M4, A329 (M) and the A33 with more the 1500 HGV flows per day. This significantly reduces on the local road network to below 500 HGV flows per day.

18.14.3. Rail freight also plays a role within the borough with significant amounts of rail freight movements on the Reading to London Paddington Line and Reading to Basingstoke line.

There are however limited paths available to transport freight on the Reading to Waterloo line that runs through the Borough.

18.14.4. A freight forum has been created as part of the Transport for the South East Freight, Logistics and Gateways Strategy. This forum includes key stakeholders including Wokingham Borough Council. Key actions of this forum include developing guidance for individuals, businesses and local authorities on best practice for the industry.

18.15 Traffic and Road Network

18.15.1. Wokingham has access to many key routes including the M4 (links to the South West and London), the A239(M) (links to Reading and Bracknell), the A4 (runs mostly parallel to the M4), the A329 (linking Ascot, Bracknell, Reading, Wallingford and the M40) as well as other key routes.

18.15.2. National data show that between 2004 and 2018 there was a 6% decrease in traffic volumes through 46 sites across the borough. Bicycles (26%) and Large Goods Vehicles (LGVs) 34% are the only modes that have seen a growth since 2018. Alongside reducing traffic volumes, there has also been a decrease in average delays by 1.6 seconds per vehicle per minute since 2016.

18.15.3. Local Traffic counters however show traffic levels to have been broadly flat over the last 15 years, with a small increase of 2.8% from 2008 to 2018 and a small decrease from 2003-2018 (1.9%).

18.15.4. Across the different typologies, routes within Reading have shown the smallest change, and reflecting this they typically have a flatter flow profile through the day. Rural routes and roads within Wokingham and Winnersh have more typical M profiles, indicating capacity for large parts of the day. Some of these routes, show highest flow volumes in the middle of the day, likely to reflect the greater amount of leisure and shopping trip purposes.

18.15.5. The 2018 DfT Road Traffic Forecasts (Using TEMPro version 7.2b) suggest future traffic is likely to grow at approximately 6% every five years for both principal and minor roads in the borough, with higher forecast rates are predicted for both trunk roads and motorways. These forecasts are however contrary to current local traffic trends and falling individual trip rates.

18.15.6. The borough is currently responsible for all on-street and off-street parking in Council owned off street car parks and Park & Ride (P&R) sites. There are currently 23 car parks providing 1223 spaces in Wokingham town Centre, 632 spaces in Reading facing towns of Woodley, Earley and Shinfield and 121 in the smaller market towns / rural areas. There are four P&R sites in the borough, Winnersh P&R located on the edge of Winnersh Triangle Business Park, Mereoak P&R located off the A33, south of the M4, Thames Valley Park and Ride, close to Thames Valley Park Business Park and Coppid Beech Park and Ride which is close the Bracknell boundary.

18.16 Road Safety

18.16.1. The number of traffic collisions resulting in personal injury has generally been declining year-on-year, from 349 collisions in 2008 to 186 in 2021 (47% decrease), and the number of fatality or serious injury collisions falling by 50% over the same period (30 in 2021). These reductions in Wokingham are greater than the national and regional trends.

18.16.2. Approximately 60% of all causalities were male, rising to 75% for fatal or serious injury collisions. People aged 65 and over accounted for 7.8% of all causalities and 15.4% of KSI casualties in 2018.

18.16.3. In relation to vulnerable road users, since 2008 there has been a significant fall in the number of pedestrian casualties. There has also been a slight fall in the total number of all cyclist and motorcyclist casualties, albeit the proportion of total collisions for involving cycles has grown.

18.16.4. The highest number of pedestrian collisions being focused around Wokingham Town Centre, Winnersh (A329 Winnersh Crossroads area and Robin Hood Lane), Lower Earley (A329 Showcase roundabout area), Charvil, Shinfield and within Woodley and Lower Earley. Cyclist casualties are also prevalent in Twyford (B3018) and the B3290 Black Boy Roundabout.

18.16.5. Between 2016-2021, routes were analysed to identify the relative collision performance of different routes within the borough. Based on this analysis, the worst performing routes were the A329, B478, A4 and B3349.

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