



Tunbridge Wells Borough
Council

*Town Centre Study:
Transport & Carbon
Baseline Report*



CITY SCIENCE
delivering decarbonisation

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Executive Summary

Overview

Tunbridge Wells Borough Council (TWBC) has commissioned LDA Design, Knight Frank and City Science to develop a Town Centre Study that will inform future work on the Royal Tunbridge Wells Town Centre Plan. This study will undertake an update of the evidence base required to support the Plan development, undertake stakeholder engagement to account for the views and experiences of local groups so that they can be incorporated into the Plan, and to develop a vision for Tunbridge Wells Town Centre as a whole.

This Transport & Carbon Baseline Report consolidates the initial evidence base across policy and data to provide an overview of the current transport provision and carbon emissions relevant to the study area. The analysis mainly considers the town centre study area but also considers the wider strategic context.

Policy Background

There has been a significant policy shift over the last few years, particularly at a national level. The government has set a binding target of the UK having net zero emissions by 2050. It aims to do this through increasing clean energy production, investing in carbon capture, funding retrofit programmes to decarbonise the UK's domestic and commercial heating systems, and delivering major reform in the transport sector.

In terms of transport, focus is being put on delivering high quality walking and cycling schemes which encourage people out of their cars. Simultaneously the government has invested in public transport through the National Bus Strategy and has committed to ending the sale of new petrol and diesel cars by 2030.

Locally, Tunbridge Wells Borough has also put a focus on active travel and public transport as a catalyst for social change as well as decarbonisation. The delivery of a Local Cycling & Walking Infrastructure Plan (LCWIP) underpins improvements to walking and cycling networks, while the Tunbridge Wells Borough Transport Strategy seeks to reduce congestion, improve safety and air quality, and support economic activity within the borough through the provision of high-quality transport infrastructure.

Transport & Movement Baseline Summary

Active Travel

Royal Tunbridge Wells Town Centre has some examples of a pleasant environment in its core for walking and cycling (e.g. The Pantiles and the Common), however, there are notable pedestrian severance issues encircling the town centre which constrains the walking and cycling environment. This includes highly trafficked and overly vehicle dominated routes such as the A264, the A26 and the Grosvenor Road gyratory at the northern end of the town centre. There is also an absence of traffic free cycle route infrastructure in and around the town centre.

Some data (e.g. Strava Metro) indicates that there has been a significant increase in the number of recorded journeys both for walking and cycling between 2019 and 2021, and there is an opportunity presented by the new LCWIP to encourage more people to choose to walk or cycle to the town centre.

Public Transport

There is relatively good bus connectivity from Royal Tunbridge Wells to main regional centres including Sevenoaks, Maidstone and East Grinstead, as well as frequent local services to the hospital and between Rusthall and High Brooms.

However, services have been reduced since COVID-19 due to service viability pressures and much of the rural area surrounding Royal Tunbridge Wells has very limited or an absence of bus services to access the town centre. There are also infrastructure provision challenges within the town centre itself with local bus companies like Arriva Southern Counties identifying there is a lack of layover space for buses; particularly considering future development planned for the town.

In terms of rail, there is good connectivity between Royal Tunbridge Wells and London and Hastings, with journey times to London Bridge at 55 minutes from Tunbridge Wells Station. However, there is a lack of natural wayfinding, or a sense of arrival at the station which makes it less attractive for people to walk from the station to the town centre.

Increased Park and Ride (P&R) presents a strategic opportunity for the town centre. A P&R Feasibility Study was carried out in 2018 which recommended that options for a P&R at both Eridge Road and Pembury Road should be pursued further to determine site-specific factors.

Highways & Parking

There are several key arterial routes that pass through or adjacent to the town centre including the A26 and A264 whilst the A21 to the east of the study area is the only strategic road managed by National Highways in the borough. Congestion is a key issue which impacts upon the town centre, contributing to air quality and safety issues and a poor amenity; underlined by the designated Air Quality Management Area on the A26 to the west of the town centre. Increased travel demand from new housing developments identified in the emerging Local Plan will need to maximise sustainable transport opportunities and reduce the threat of increased congestion impacting the town centre.

There is plentiful, cheap parking within the town centre alongside many opportunities for free on-street parking which reduces the attractiveness of sustainable modes for journeys to and from the town centre. There is also a lack of Electric Vehicle charging infrastructure either on-street or within council-owned car parks at present.

Carbon Baseline Summary

Decarbonisation progress in the town centre of Tunbridge Wells has been similar to the rest of the UK – total CO₂e emissions in 2018 were 35.2 ktCO₂e which represents a 16.6% reduction compared to 2011 (the national average reduction for over same period for the domestic and transport sector was 12.5%). Domestic emissions which include electricity, gas and other heating consumption represented 64% of the town centre's emissions, of which gas consumption equated to 15.4 ktCO₂e and electricity consumption 6.7 ktCO₂e.

Town centre transport emissions (car, van and public transport) reduced by 14.3% since 2011, compared to a 2.2% rise nationally. 81.3% of transport emissions in the town centre are car-related, and this figure has not changed significantly between 2011 and 2018. The key to decarbonising the city centre is investing in decarbonising domestic buildings, which accounted for 22 ktCO₂e in 2018. Within this around two thirds of emissions were attributed to gas.

The main opportunities for decarbonisation in Royal Tunbridge Wells town centre exist around renewable heat course potential (e.g. heat pumps or district heat network) which reduce reliance on gas, rooftop solar PV potential, and modal shift to active and sustainable modes for those visiting the town centre.

1 Introduction

1.1 Background

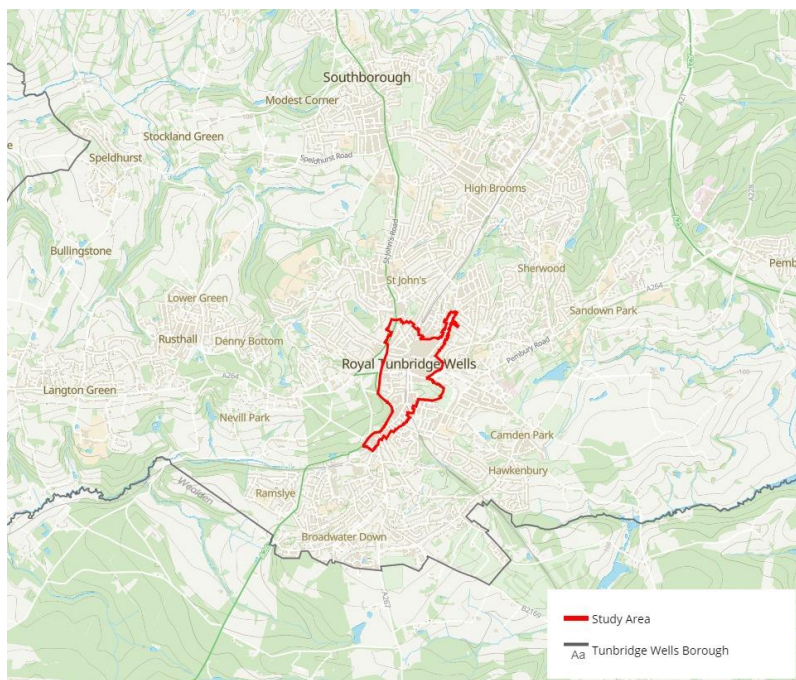
TWBC has commissioned LDA Design, Knight Frank and City Science to develop a Town Centre Study that will inform future work on the Royal Tunbridge Wells Town Centre Plan.

It is understood that the Town Centre Plan will be a Supplementary Planning Document attached to the emerging Tunbridge Wells Local Plan (TWBC, 2021) which was submitted for examination in November 2021. In the emerging Local Plan (TWBC, 2021), Policy STR/RTW 2: Royal Tunbridge Wells Town Centre refers to the development of a Town Centre Area Plan which will determine a vision for the town centre as the primary retail, leisure, tourism, cultural and employment focus within the borough.

This study will undertake an update of the evidence base required to support the Plan development, undertake stakeholder engagement exercises to account for the views and experiences of local groups so that they can be incorporated into the Plan, and to develop a vision for Tunbridge Wells town centre as a whole. The Town Centre Study therefore covers a suite of topic areas such as future redevelopment opportunities, landscape, culture and tourism and economic development. City Science have been commissioned to provide specific input relating to transport, movement and decarbonisation, which this report relates to.

1.2 Study Area

The Borough of Tunbridge Wells is in south west Kent, bordering East Sussex. Royal Tunbridge Wells is the main centre within the borough, with notable shopping, leisure and employment opportunities.



Much of the town centre is within a conservation area, and it is home to several listed buildings and distinctive architectural features. Other nearby centres include Tonbridge, Paddock Wood, Crowborough and Maidstone.

Figure 1-1 shows the boundary of the town centre and the borough, as well as the wider Tunbridge Wells urban area. The scope of the study mainly focuses on the study area shown, however, consideration is also given to the wider strategic transport and accessibility context.

Figure 1-1: Study Area and Wider Geographical Context

1.3 Purpose of Report

This Baseline Report consolidates the initial evidence base across policy and data to provide an overview of the current transport provision and carbon emissions relevant to the study area. The analysis considers the town centre study area both locally and within a wider strategic context. The findings are summarised in a SWOT analysis.

The key objective of this report are:

- To provide an up-to-date review of the key national, county-wide and local Tunbridge Wells policies relevant to transport and decarbonisation that will shape the Town Centre Plan
- To summarise the current travel behaviour within Tunbridge Wells town centre and the wider urban area
- To summarise the carbon emissions baseline of the town centre area
- To structure the findings in the form of a SWOT analysis relevant to transport and decarbonisation applicable to the study area

1.4 Report Structure

Following this chapter, the report is structured as follows:

- **Chapter 2:** Policy & Studies Review
- **Chapter 3:** Transport Baseline
- **Chapter 4:** Carbon Baseline
- **Chapter 5:** SWOT Analysis
- **Chapter 6:** Next Steps

2 Policy & Studies Review

Chapter at a Glance

This chapter gives an overview of recent policies and strategies relevant to transport and decarbonisation at a national, regional, and local level which the Town Centre Plan is required to account for.

2.1 Overview

This chapter summarises the key policies from a national, county-wide and local perspective, including new planning policy from TWBC and a wealth of transport and decarbonisation policy released at a government level in response to the declaration of a climate emergency in 2019.

Each of the policies shown in Figure 2-1 have been considered in terms of their impact on the vision and the options which could be considered for the Town Centre Plan.

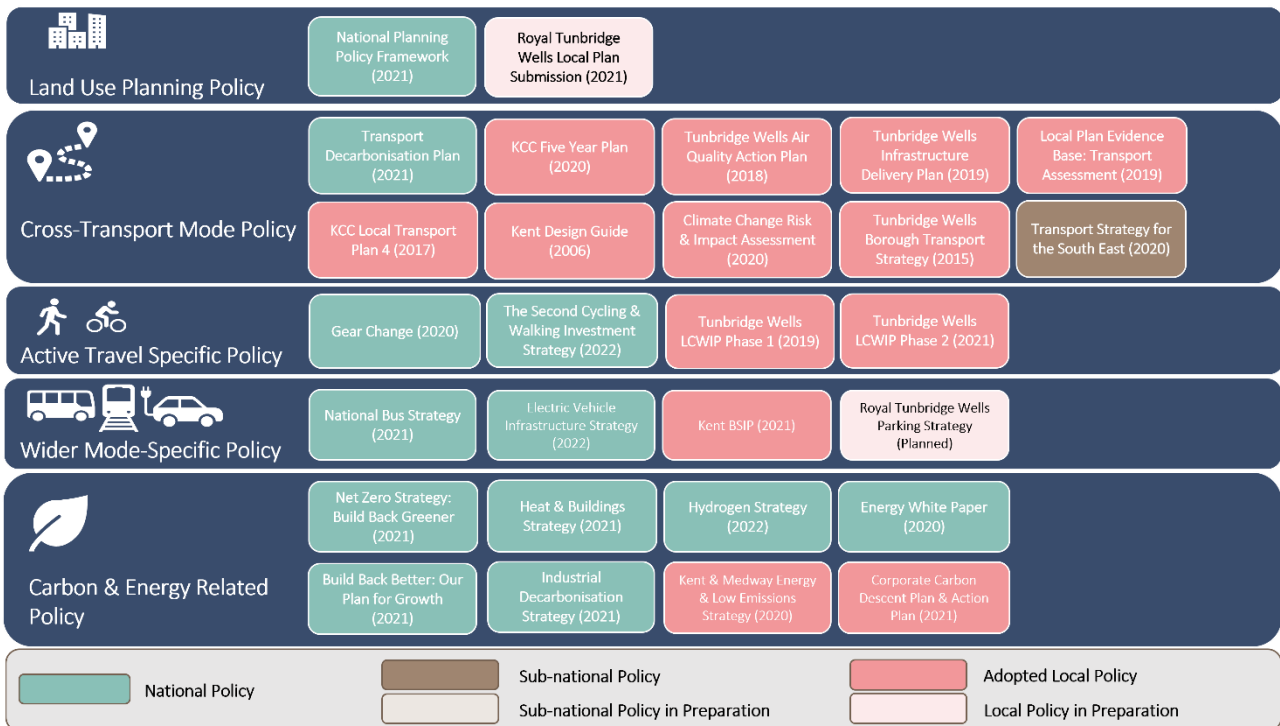


Figure 2-1: Summary of Key Policy Documents

2.2 National Policy

2.2.1 Net Zero Strategy: Build Back Greener (2021)

The Net Zero Strategy: Build Back Greener (BEIS, 2021) sets out the UK Government’s overarching approach to achieving net zero carbon emissions by 2050 as enshrined by the Climate Change Act 2008. The Strategy sets out an emissions reduction pathway to 2037 by sector including transport, industry and energy. The key policies included are summarised in Table 2-1.

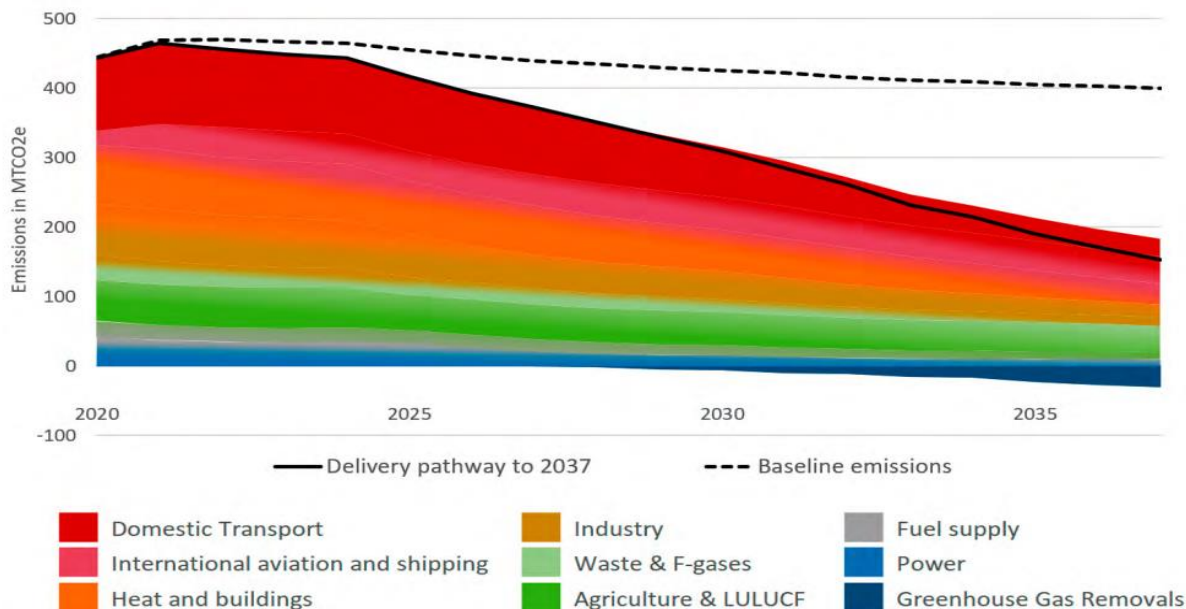


Figure 2-2: Decarbonisation Pathway to 2037 (BEIS, 2021)

Policy Area	Key Policies
Power	<ul style="list-style-type: none"> Commitment to fully decarbonise power system by 2035, including 40GW of offshore wind by 2030 and investment in nuclear power generation
Fuel Supply & Hydrogen	<ul style="list-style-type: none"> Deliver of 5GW of hydrogen production capacity by 2030 and reducing emissions by 50% in the oil and gas sector
Industry	<ul style="list-style-type: none"> Capture 20-30 MtCO2 per year by 2030 through investment in Carbon Capture and Storage Investment in industrial sectors to support net zero transition
Heat & Buildings	<ul style="list-style-type: none"> An ambition to ban the sale of new gas boilers by 2035 Funding including the Heat Pump Read programme to achieve 600,000 new heat pumps installed every year by 2028
Transport	<ul style="list-style-type: none"> See Transport Decarbonisation Plan (Section 2.2.2)
Natural Resources, Waste & Fluorinated Gases	<ul style="list-style-type: none"> Restoration of 280,000 hectares of peat by 2050 and trebling woodland creation rates to increase rates of 30,000 hectares per year by 2024
Greenhouse Gas Removal	<ul style="list-style-type: none"> Investment in innovation to explore feasibility of removal of greenhouse gases directly from atmosphere
Cross-Cutting Action	<ul style="list-style-type: none"> Increase skills and funding availability such as through the UK Infrastructure Bank

Table 2-1: Summary of Key Policies in Net Zero Strategy: Build Back Greener (BEIS, 2021)

2.2.2 Transport Decarbonisation Plan (2021)

The Transport Decarbonisation Plan entitled '*Decarbonising Transport: A Better, Greener Britain*' (DfT, 2021) sets out plans to deliver net zero transport by 2050. The Transport Decarbonisation Plan has six strategic priorities as shown below:

Transport Decarbonisation Plan (2021) Strategic Priorities:

- **Accelerating modal shift to public and active transport:** supporting fewer trips made by car
- **Decarbonisation of road vehicles:** accelerating the transition to zero emission road vehicles
- **Decarbonising how we get our goods:** influencing future consumer demand and transforming 'last-mile' deliveries to develop an integrated, clean, and sustainable delivery system
- **Place-based solutions:** consideration of the locational context of carbon emissions
- **UK as a hub for green transport technology and innovation**
- **Reducing carbon in a global economy**

The Transport Decarbonisation Plan establishes several strategic future commitments including:

- A policy ambition that half of all journeys in towns and cities will be cycled or walked by 2030
- Ban on the sale of new petrol and diesel cars by 2030 and a requirement for all new cars and vans to be fully zero emissions at the tailpipe by 2035 alongside a commitment to introduce similar phase out dates applicable for buses, HGVs and powered two wheelers
- Delivery of 4,000 new zero emission buses and a commitment to deliver the first all-electric bus town or city
- Action will be implemented to increase average road vehicle occupancy by 2030

2.2.3 National Planning Policy Framework (2021)

The National Planning Policy Framework (NPPF) (MHCLG, 2021) constitutes the overarching policy framework underpinning the planning process in England. Planning legislation dictates that the preparation of locally prepared development plans for housing such as Local Plans must comply with NPPF.

2.2.4 Build Back Better: Our Plan for Growth (2021)

The Build Back Better Strategy (HM Treasury, 2021) sets out future economic growth aspirations and recovery from COVID-19 through significant investment in green infrastructure, skills and innovation.

The Build Back Better plan is split into three core pillars of growth: Infrastructure, Skills and Innovation:

- **Infrastructure:** this sets out short-term economic improvements via investment in broadband, roads, rails and cities to boost productivity. Funds such as the Levelling Up Fund, the UK Shared Prosperity Fund and the Towns funds will invest in local areas to enable capital expenditure
- **Skills:** Including a plan for productivity growth through the transformation of Further Education to align post-16 technical education with Employer demand. A Lifetime Skills Guarantee is proposed to support learning and employer-led skills bootcamps to ensure that employees have the skills required in the changing technological landscape
- **Innovation:** this sets out reforms in finance to incentivise investment in innovation, continued government support for start-ups and a Future Fund to address the scale-up gap for the most innovative businesses

2.2.5 Gear Change: A Bold Vision for Walking & Cycling (2020)

Gear Change (DfT, 2020) is a visionary strategy which identifies how walking and cycling will be revolutionised across England. It aspires that 50% of all journeys in towns and cities will be made by active modes by 2030 which has been reinforced in the Second Cycling and Walking Investment Strategy (2022) (see Table 2-2). The objectives of Gear Change are as follows:

- **Healthier, happier and greener communities:** Through reducing the number of short journeys by car and improving peoples' health and quality of life
- **Safer Streets:** Fear of cycling is eliminated
- **Convenient and accessible travel:** Active travel modes recognised as the most attractive way to travel by being affordable and allowing everybody to have opportunities to walk or cycle
- **At the heart of transport decision-making:** Placing walking and cycling infrastructure as a priority consideration rather than an afterthought

2.2.6 Bus Back Better: The National Bus Strategy for England (2021)

The National Bus Strategy (DfT, 2021) is aimed at improving bus services. The central aim of this strategy is to increase bus patronage, exceeding pre-COVID levels by making buses more frequent, reliable, easier to understand and use, better coordinated and cheaper. Another key outcome of the National Bus Strategy is the move towards a franchise model for all services and for all Local Transport Authorities to begin the process of establishing an Enhanced Partnership.

2.2.7 Taking Charge: The Electric Vehicle Infrastructure Strategy (2022)

Electric Vehicles (EVs) are becoming an increasingly mainstream option, and with the government's ban on the sale of new petrol and diesel cars after 2030, there is a need to ensure that infrastructure is available. The vision in the EV Infrastructure Strategy (DfT, 2022) is for around 300,000 charge points to be available to the public by 2030. The Strategy also commits to several actions to support local authorities in rolling out EV charging networks in their area.

TWBC is currently engaged in a project to install 36 electric vehicle charge points in 14 car parks across the Borough, partly funded through the government's On-Street Residential ChargePoint Scheme.

2.2.8 Heat & Buildings Strategy (2021)

The purpose of the Heat and Buildings Strategy (BEIS, 2021) is to set out the immediate whole system long-term plan to reduce emissions from buildings. This presents a major challenge, as the cost of low-carbon heat technology is currently high, but also an opportunity in terms of economic growth that will be generated as the UK retrofits its housing stock.

The strategy outlines five core principles:

Heat and Buildings Strategy (BEIS, 2021) Core Principles

- Take a whole-buildings and whole-system approach to minimise costs of decarbonisation
- Innovation is essential to driving down costs, improving options and informing future decisions
- Need to accelerate 'no- and low-regrets' action now
- We will balance certainty and flexibility to provide both stability for investment and an enabling environment to be taken to address different buildings
- Government will target support to enable action for those in most need

The government's key commitments as a result of this strategy centre around the delivery of various Ten Point Plan agreements, including developing the markets and consumer choices, developing hydrogen for heating and committing to the delivery of greener buildings through improving the performance of existing housing stock.

2.2.9 Wider National Policies

National Policy	Relevance to Tunbridge Wells Town Centre Study
<p>Ten Point Plan for a Green Industrial Revolution (BEIS, 2020)</p>	<p>The Plan provides a pre-cursor to several decarbonisation focused national policies. Of specific relevance is:</p> <ul style="list-style-type: none"> • Future Homes Standard: This will be a key consideration in the rejuvenation of the town centre. Any development will need to ensure a high level of energy efficiency in new buildings from the design stage, and other factors such as biodiversity net gain • Vehicle Electrification: The Ten Point Plan introduces bans on the sale of new petrol and diesel cars by 2030 and 2035 which amplifies the importance of the town centre accommodating suitable EV charging provision • Modal Shift: The Plan acknowledges that vehicle electrification will not solve town centre problems such as congestion and air quality issues associated with particulate matter and therefore a wider suite of measures associated with mode shift will be required
<p>Energy White Paper (BEIS, 2020)</p>	<p>The Energy White Paper (BEIS, 2020) sets out further detail in relation the Government’s upcoming energy policies and commitments to meet their net zero targets:</p> <ul style="list-style-type: none"> • Domestic Gas Grid Connections: For domestic properties the Paper sets out the intention to consult on ending gas grid connections to new homes from 2025 and to grow the installation of heat pumps • Renewable Energy Generation: The white paper sets out bi-annual Contract for Difference auctions to meet the targeted 40GW of offshore wind by 2030
<p>Second Cycling & Walking Investment Plan (CWIS2) (DfT, 2022)</p>	<p>CWIS2 builds on the target originally set in Gear Change that 50% of all short journeys should be made on foot or by bike by 2030 including the introduction of a 55% target by 2035. This ambition will be required to be reflected in the future Town Centre Plan.</p>
<p>Hydrogen Strategy (BEIS, 2021)</p>	<p>The Strategy sets out the ambitions for 5GW of low carbon hydrogen production capacity to be established by 2030 to position the UK as a global leader in green hydrogen production. While the research and development of hydrogen power may not presently affect daily life in Turnbridge Wells, it should be noted that the government has ambitions for a potential pilot hydrogen town by 2030. Consideration of the future potential and impacts of hydrogen power should be made in the Town Centre Plan.</p>
<p>Industrial Decarbonisation Strategy (BEIS, 2021)</p>	<p>The Strategy identifies how all sectors of UK industry will decarbonise by 2050. Whilst there is no major industry or production factories in the study area, key areas with relevance to Tunbridge Wells include:</p> <ul style="list-style-type: none"> • Low Carbon Investment: There is a potential for the future Town Centre Plan to attract investment and encourage growth of low carbon economic sectors • Business Decarbonisation Programmes: As suggested by the Strategy, there is an opportunity for TWBC to support businesses to make greener choices and decarbonise in the town centre • Green Economy Skills Transition: There is an opportunity for TWBC to accelerate programmes aimed at upskilling local people in the green economy to attract inward investment in the town centre

Table 2-2: Summary of wider national policies related to transport and decarbonisation relevant to Royal Tunbridge Wells

2.3 Sub-National & County-Wide Policy

2.3.1 Transport Strategy for the South East (2020)

Transport for the South East (TfSE) is a sub-national transport body, of which Kent County Council is a constituent transport authority. The inaugural Transport Strategy for the South East (TfSE, 2020) sets out an overarching vision: *‘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.’* Three strategic goals are identified focused on the economy, society and the environment.

2.3.2 Local Transport Plan 4: Delivering Growth without Gridlock (2016 – 2031)

In advance of a new version being prepared, LTP4 remains KCC’s current Local Transport Plan (LTP) (KCC, 2017) which sets out the overarching transport policies for the county. Its core focus is on *‘Delivering Growth without Gridlock.’* LTP4 states five strategic outcomes which are supported by a set of policies as shown in Table 2-3.

Outcome	Policy
Economic growth & minimised congestion	Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population
Affordable & accessible door-to-door journeys	Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services
Safer travel	Provide a safer road, footway and cycleway network to reduce the likelihood of casualties, and encourage other transport providers to improve safety on their networks
Enhanced environment	Deliver schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment
Better health & wellbeing	Provide and promote active travel choices for all members of the community to encourage good health and wellbeing, and implement measures to improve local air quality

Table 2-3: LTP4 Outcomes

2.3.3 Kent Bus Service Improvement Plan (2021)

As part of the National Bus Strategy, Local Transport Authorities were instructed to develop and publish a BSIP by October 2021. The purpose of BSIPs is to identify targets for improving the bus network and measures to achieve them. Kent’s BSIP (2021) was developed in partnership with the 39 bus operators that run services within the county. Most bus services operated in a de-regulated market outside of the control of KCC. The targets set by KCC are shown in Table 2-4.

Target	2018/19	2019/20	Target for 2024/25
Journey time (bus speeds)	N/A	24.7kph	24.7kph
Reliability (service timekeeping)	Nov 19 – 77.7%	Jun 21 – 85%	95%
Reliability (service actually operating)	Nov 19 – 98.7%	Jun 21 – 99%	99.5%
Passenger numbers	55.4 million	53.5 million	58.2 million
Passenger satisfaction	86%	89%	95%
Vehicle emissions	N/A	26/1%	40%

Table 2-4: KCC BSIP Targets

KCC set up a series of Enhanced Partnerships, and Tunbridge Wells as part of the West Kent Enhanced Partnership. A Local Bus Focus Group has also been formed for Tunbridge Wells, which is a forum for local bus operators. The first meeting of this group has already taken place and TWBC are optimistic about this collaboration leading to positive outcomes for local bus services.

2.3.4 Kent & Medway Energy & Low Emissions Strategy (2020)

The purpose of the Kent & Medway Energy & Low Emissions Strategy (KCC & Medway Council, 2020) is to demonstrate how Kent and Medway local authorities will achieve net zero emissions by 2050. There are ten priority actions outlined in the Strategy covering emissions as a whole, heating, transport, planning and development and renewable energy generation.

Road vehicles are the county's largest source of carbon emissions and therefore the Strategy aims to set up a 'smart connectivity and mobility modal shift programme', leveraging sustainable transport, future mobility technology, home working, better broadband and digital infrastructure coverage and behaviour change.

Short term actions include developing and expanding sustainable travel policies to reduce vehicle miles, prioritising walking and cycling, and the installation of 'low carbon mobility hubs' to provide charging infrastructure. Longer term, there is a need to reduce the distance between local services and communities or public transport interchanges, increase control of public parking to prioritise EVs, and consider road space reallocation to favour active and shared modes.

2.3.5 Kent Design Guide (2006)

The purpose of the Kent Design Guide (KCC, 2006) is to provide a starting point for planners and designers when delivering development within the county, and to ensure a high standard of design and construction across the board. According to the Guide, there are six elements of good design:

- **Enriching Existing Character:** Reinforcing local patterns of development and landscape
- **Diversity:** Making places with variety in the form of buildings, in materials and the mixture of uses
- **Understandable Place:** Having a clarity of form and layout which is easy to comprehend
- **Achieving a Pride of Place:** Development that draw people together and create a sense of place
- **Easy Movement:** Easy to get to and move through; routes that are safe and welcoming
- **Enduring & Flexible Places:** Built to last and energy-efficient according to the intended use

2.4 Local Borough Policy

2.4.1 Tunbridge Wells Borough Local Plan Submission (2020 – 2038)

TWBC’s Local Plan (TWBC, 2021) was submitted for examination in October 2021 and is still to be adopted. The Local Plan vision with respect to Royal Tunbridge Wells is as follows:

“For Royal Tunbridge Wells and Southborough to maintain their role as the main urban area, with a mix of housing, employment, leisure and cultural developments, including by making effective use of urban land, whilst protecting their respective distinctive natural and built environmental qualities.”

The Local Plan also states the goal of borough to be carbon neutral by 2030, and to minimise the impact of climate change on its communities, the economy and the environment.

Policy STR 6 (see Table 2-5) sets out the key transport and parking policies which is focused on facilitating all forms of sustainable transport. Cycling is given a notable role, including the need for improved cycling infrastructure, however, the current high levels of car use are acknowledged as is the associated need for highway improvements and parking.

Mode	Summary
Active Travel	<ul style="list-style-type: none"> Creation of Low Traffic Neighbourhoods in the main urban area, including Royal Tunbridge Wells with enhanced cycling, pedestrian and EV infrastructure Development and delivery of strategic sites with integrated active travel infrastructure Provision of inter-settlement walking, cycling, EV and non-motorised user routes into centres or key destinations, including through enhancement of the Public Rights of Way network Improved cycle parking and e-bike charging points, and bike share opportunities
Public Transport	<ul style="list-style-type: none"> Establish rapid bus/transit links, including Royal Tunbridge Wells to Tonbridge Provide station infrastructure improvements where necessary, and improve the rail network by increasing the attractiveness of travelling by rail Work with KCC to retain and enhance existing bus services Explore options for innovation such as Demand Responsive Transit Require robust travel plans for developments Support the expansion of car clubs and opportunities for car sharing
Highway Network	<ul style="list-style-type: none"> Part off-line, part on-line improvements to the A228 Provision of a highway link bypassing Five Oak Green Measures along the A228/A264, including junction capacity improvements at Woodsgate Corner and a roundabout at the Pembury Road/Halls Hole Road/Blackhurst Lane junction
New & Emerging Technology	<ul style="list-style-type: none"> Incorporate EV charging points into any new developments, and where possible into existing public and private car parks and suitable street furniture Explore the potential for introduction of smart travel solutions including Demand Responsive Transit and Mobility as a Service
Design	<ul style="list-style-type: none"> All transport infrastructure schemes will take every opportunity to improve or enhance the historic environment, blue and green infrastructure, and landscape connectivity
Car parking	<ul style="list-style-type: none"> Parking provision for new developments to be provided in accordance with the Tunbridge Wells Residential Parking Standards Topic Paper which equates to mandatory provision of one space for most residential properties in the town centre

Table 2-5: Summary of Local Plan Policy STR 6 (TWBC, 2021)

Relevant elements of other relevant policies are described in Table 2-6.

Policy	Summary
STR 7: Climate Change	<ul style="list-style-type: none"> • Effective spatial planning will be used to reduce the need to travel, especially by private car, and secure the maximum number of possible journeys to be made by active and sustainable transport • Partner engagement will be used to determine the most effective approach in all areas
STR/RTW 1: The Strategy for Royal Tunbridge Wells	<ul style="list-style-type: none"> • Develop a strategy for the Town Centre to provide the framework for the development of a Town Centre Area Plan to ensure the long-term vitality and viability of the centre over the Plan period • Support active travel by delivering improvements to the local pedestrian and cycling network as set out in the LCWIP, including Low Traffic Neighbourhoods and additional cycle parking • Support improvements to the local bus network and infrastructure • Deliver measures to reduce congestion on the radial routes into the town • Plan for the expansion of EV charging and car clubs • Retain and protect the existing public car parks within Royal Tunbridge Wells
STR/RTW 2: Royal Tunbridge Wells Town Centre	<ul style="list-style-type: none"> • Improved connectivity and legibility between the core areas of the Town Centre and the wider town • Pedestrian and cycle-friendly environments, including Low Traffic Neighbourhoods • Enhancement of the local bus network and infrastructure • Extension of the existing network of EV charging and the car club • Sufficient parking to support the range of town centre uses

Table 2-6: Summary of Other Relevant Local Plan Policies (TWBC, 2021)

2.4.2 Air Quality Action Plan 2018 – 2023 (2020)

The Air Quality Action Plan for Tunbridge Wells (TWBC, 2020) was drawn up with the intention of encouraging activities that support prosperity, wellness and inclusivity, particularly those that tackle instances of poor air quality across the Borough.

Road traffic is the main cause of the pollution affecting the Borough and there is an Air Quality Management Area (AQMA) in place on the A26 adjacent to the town centre (see Section 3.1.2). Buses emit significantly higher levels of NOx than cars or freight vehicles and the bus fleet across Tunbridge Wells consists largely of Euro III and Euro V vehicles, although it should be acknowledged that buses carry more people and make up a much smaller proportion of vehicle composition in Tunbridge Wells town centre. In addition, the Plan supports opportunities to enable the uptake of EVs as well as measures to encourage active travel across the community.

2.4.3 Draft Tunbridge Wells Infrastructure Delivery Plan (2019)

The Draft Tunbridge Wells Infrastructure Delivery Plan (TWBC, 2019) sets out infrastructure required to support future growth identified in the emerging Local Plan (see Section 2.4.1). Table 2-7 sets out the future infrastructure schemes local to Royal Tunbridge Wells.

Relevant Infrastructure Type	Summary
Active Travel	<ul style="list-style-type: none"> Upgraded cycle route from Pembury/ Tunbridge Wells Hospital along the A264 Pembury Road into Royal Tunbridge Wells town centre Upgrade cycling corridor and rights of way between Tunbridge Wells and Tonbridge to support cycling on A26 corridor
Rail	<ul style="list-style-type: none"> Power supply and signalling upgrade on Tunbridge Wells to Hastings line between Tonbridge & Bo-Peep junction to permit use of longer trains Off peak 4tph Tunbridge Wells to London (2tph fast Tonbridge-London) On-street commuter parking causes issues at all the stations and requires addressing. There is likely to be a requirement for additional station parking in the borough, but this has not yet been quantified
Bus	<ul style="list-style-type: none"> New bus priority from Tonbridge Road towards Royal Tunbridge Wells at Woodsgate Corner signalised junction Bus priority measures on A264 Pembury Road from Woodsgate Corner to Oakley School in-bound (towards Royal Tunbridge Wells town centre). Develop rural on-demand bus service in east Tunbridge Wells connecting homes to key destination hubs Upgraded infrastructure (e.g. Lay over facilities) in Royal Tunbridge Wells town centre to accommodate increase in bus services Coach parking in Royal Tunbridge Wells town centre Bus stop improvements such as real time screens for some of main bus stops
Highways	<ul style="list-style-type: none"> Develop 5G capability to facilitate the evolution of highly connected and ultimately fully autonomous vehicles A26 - reallocation of road space with smart traffic management to improve journey time reliability and provide infrastructure for sustainable modes A26 junction at Broadwater Forest Lane/Bunny Lane- Increase capacity at junction and improve safety with signals
Utilities & Digital Infrastructure	<ul style="list-style-type: none"> No major energy supply upgrades planned Continued rollout of full fibre broadband coverage

Table 2-7: Summary of Key Relevant Infrastructure in Draft Infrastructure Delivery Plan (TWBC, 2019)

2.4.4 Tunbridge Wells Local Cycling & Walking Infrastructure Plan (2019) (2021)

Two phases of an LCWIP were prepared to provide a long-term approach to the planning and delivery of local cycling and walking network in Royal Tunbridge Wells. A series of routes for walking and cycling were identified and scored against various criteria to identify those which are most suitable to be taken forward for development. Further detail on the proposed network is provided in Section 3.2.3.

2.5 Summary

Table 2-8 gives a summary of the relevance of the key policies and strategies covered in this Chapter to the Royal Tunbridge Wells Town Centre Study.

Policy	Relevance to Royal Tunbridge Wells Town Centre Study
National Policy	
Net Zero Strategy (BEIS, 2021)	There is a need for the Town Centre Plan to account for key policy measures from the Net Zero Strategy including a transition to zero emission energy supply, including renewables and heat supply, for new buildings.
Transport Decarbonisation Plan (DfT, 2021)	There is a need for the transport network in and around Royal Tunbridge Wells town centre to align with national government transport decarbonisation policies. This includes investment in the active travel network to align with the ambition for over half of all journeys to be cycled or walked by 2030 and the need for a significant electric vehicle charging infrastructure to align with the various planned bans on new petrol and diesel vehicles.
NPPF (MHCLG, 2021)	A key element of NPPF is a <i>'presumption in favour of sustainable development'</i> which is a key consideration for Tunbridge Wells, from the distribution and purpose of any new development, to design which is inclusive of climate change adaptations and a transport system which supports a pathway to net zero for residents and visitors to the town. The summary of Tunbridge Wells' baseline transport conditions will form an evidence base to allow the impact of any further development in the area as part of the Town Centre Plan to be fully understood.
Build Back Better (2021)	There is an opportunity for future economic growth to be a core consideration of the Town Centre Plan to align with central government funding opportunities such as the Levelling Up Fund or Towns Fund which could unlock capital investment for new infrastructure investment.
Gear Change (DfT, 2020)	Investment in active travel infrastructure has the potential to play a key role in the decarbonisation of Tunbridge Wells' transport system; particularly for journeys to and from the town centre. There are also several other environmental and co-benefits to an increase in cycling uptake, including better air quality and improved public health. In 2019 and 2021 TWBC published an LCWIP, which outlines future network improvements.
National Bus Strategy (DfT, 2021)	Kent County Council (KCC) completed a BSIP (Section 2.3.3), and this will play an important role in determining the integration of bus services with other sustainable modes of transport as part of the Town Centre Plan.
EV Infrastructure Strategy (DfT, 2022)	The inclusion of EV charging infrastructure in the Town Centre Plan will ensure an accessible and coherent network of chargers for all users of Tunbridge Wells Town Centre and is in line with TWBC's <i>Electric Vehicle Charging Points for New Developments</i> (TWBC, 2020) guidance.
Heat & Buildings Strategy (BEIS, 2021)	The Tunbridge Wells Town Centre Plan should embed energy efficiency and low carbon heating strategies as a key consideration covering both existing properties as well as new builds.

Policy	Relevance to Royal Tunbridge Wells Town Centre Study
Sub-National & County-Wide Policy	
Transport Strategy for the South East (TfSE, 2020)	The strategy identifies a series of measures relevant to improving local journeys which the Town Centre Plan should align with. This includes investing in infrastructure for public transport, improving air quality, prioritising vulnerable users (particularly people walking and cycling), developing integrated transport hubs and improving the management and supply of car parking.
LTP4 (KCC, 2017)	<p>There is a need for the Town Centre Plan to address key challenges set out in LTP4 (and the emerging LTP5) for Royal Tunbridge Wells; particularly congestion caused by the convergence of A roads, high economic activity in the town centre and the wide catchment of schools. There is also a need to account for key future schemes affecting the town centre not yet implemented including:</p> <ul style="list-style-type: none"> • A264 Pembury Road capacity improvements • Enhancements to Medway Valley train services to improve connectivity between Tunbridge Wells and Maidstone • Tunbridge Wells town centre improvements, including public realm phase three (Mount Pleasant to Station) • Tunbridge Wells priority cycle route schemes
Kent BSIP (KCC, 2021)	Tunbridge Wells is a key trip attractor within West Kent and was identified as one of the primary corridors for future improvement (Tonbridge Town Centre to Tunbridge Wells Town Centre). The bus network here is particularly affected by congestion and there is an opportunity in the Town Centre Plan to incorporate measures which could improve this. Beyond journey time reliability, there is a further opportunity for measures in the town centre to enhance customer satisfaction.
Kent & Medway Energy & Low Emissions Strategy (KCC, 2020)	There is an opportunity for the upcoming Town Centre Plan to integrate with the Energy and Low Emissions Strategy by placing decarbonisation as a core outcome, with a particular focus on transport and energy as two key emission sources. Measures such as inclusion of e-mobility charging points and providing remote working hubs are examples of how low carbon choices can be integrated into the design of the Town Centre.
Kent Design Guide (KCC, 2006)	<ul style="list-style-type: none"> • Local Area Character: Future public realm improvements, new development and new transport schemes should be sensitive to Tunbridge Well’s heritage and not detract from its surroundings which should be developed in partnership with key stakeholders and local people • Sustainability in Design: There is a need for future town centre development to create environments which are pleasant for walking and cycling and reduce car use

Policy	Relevance to Royal Tunbridge Wells Town Centre Study
Local Borough Policy	
<p>Emerging Tunbridge Wells Borough Local Plan (TWBC, 2021)</p>	<ul style="list-style-type: none"> • Sustainable Transport for New Development: There is a need to integrate Policy STR 6 in the delivery of new development in the town centre, including priority given to active modes and buses alongside the need to incorporate sufficient EV charging infrastructure • Town Centre Transport & Connectivity Improvements: There is a need for the Town Centre Plan to incorporate Policy STR 2 / RTW 2 including improved walking connectivity between core areas, delivery of improved cycling environments, enhancement of the local bus network and ensuring sufficient car parking • Decarbonisation: There is a need for the Town Centre Plan to embed decarbonisation as a core element to deliver on the Borough’s aspiration to become carbon neutral by 2030.
<p>Air Quality Action Plan (TWBC, 2020)</p>	<p>There is a need for the Town Centre Plan to incorporate measures focused on mode shift and encouraging further electrification of vehicles which enhance air quality, including within the adjacent AQMA.</p>

Table 2-8: Summary of Policy Relevance to Town Centre Study

2.6 Wider Local Studies

Study	Year	Relevance
Climate Change Risk and Impact Assessment (KCC, 2019)	2020	<p>This sets out the likely impact of climate change on the county, and identifies a set of high priority risks which are likely to worsen over the next 30-80 years. Three specific risks to the transport system are as follows:</p> <ul style="list-style-type: none"> • Increasing temperatures • Flooding and sea-level rise • Risks of storm events/intense rainfall impacting productivity and infrastructure <p>This identifies that Tunbridge Wells town centre is most at risk of flooding during periods of intense rainfall as the volume of water is unable to discharge or cannot be accommodated within the town’s sewer network. Mitigation and adaptation measures are set out in KCC’s LTP4 (Section 2.4.1) and the Council are working with Network Rail to ensure the resilience of both nationally and internationally significant rail network.</p>
Local Plan Transport Evidence Base: Transport Assessment Report (Sweco, 2019)	2019	<p>The Transport Evidence Base is an important part of the preparations for the Tunbridge Wells Local Plan. The purpose of the Transport Assessment is to evaluate the potential impacts of development and to propose relevant mitigation measures. The key relevant issues and mitigations can be summarised as follows:</p> <ul style="list-style-type: none"> • A key objective for public transport and active travel is to enhance the local link to North Farm and High Brooms station to reduce trip demand for Royal Tunbridge Wells • Currently, cycling would be seen as not viable for most existing and future development trips due to a lack of a quality network. • Walking is strong within town/village centres (currently at 5% of total journey to work mode share) and some new development should be able to take advantage of this to promote active trips • Despite wide network coverage, bus mode share in the urban region is only 3%. Bus services will need to have frequency and priority improvements to make it a viable option for people in existing and new developments. • The central rail station and war memorial for Royal Tunbridge Wells act as a significant bus hub for the area • Rail constitutes 16% mode share of trips to work for this region of the borough. First/last mile trips made by car increase the risk of congestion in the town centre, therefore sustainable mode connections to the railway stations are required

Table 2-9: Wider Relevant Local Studies

2.7 Best Practice Review

Document	Year	Relevance
Net Zero Transport: The Role of Spatial Planning and Place-Based Solutions (RTPI, 2021)	2021	<ul style="list-style-type: none"> • This Royal Town Planning Institute research paper (co-authored by City Science) explores the pathways to achieving an 80% reduction in surface transport emissions by 2030, on the way to net zero by 2050 • The findings indicate that there is no one strategy or intervention which will achieve the necessary reduction in carbon emissions • Planners need to move away from the traditional ‘predict and provide’ approach to ‘vision and validate’, where a strong sense of place underpins the delivery of the necessary outcomes for the development • It is vital to ensure that a decide and provide approach is taken within Royal Tunbridge Wells Town Centre to ensure that high car dependency is not embedded in any new design, and that a sensitive, place-based approach is adopted both for new transport infrastructure and new development
Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure (DfT, 2022)	2022	<ul style="list-style-type: none"> • The purposes of the DfT’s Inclusive Mobility guidance is to help local authorities and scheme designers to understand the features which need to be considered in creating a transport environment which is free from barriers for disabled people • It stresses the importance of stakeholder engagement which is appropriately diverse, in order to capture the needs and views of people with different kinds of disabilities. Advice can also be sought from organisations which support people with disabilities, such as the Royal National Institute for Blind People and Disability Rights UK • The document stipulates various design standards for different elements of a scheme, such as pavement widths, tonal contrast, changes in height and the use of digital technology • Engaging with the disabled and mobility impaired community within Royal Tunbridge Wells should be a key aspect of any stakeholder engagement plan, to ensure that the needs of the entire local community are catered for as part of any design improvements. Properly-executed inclusive design benefits the entire community, not just disabled users
Cycle Infrastructure Design: LTN 1/20	2020	<ul style="list-style-type: none"> • LTN 1/20 provides guidance to local authorities on new standards for cycling infrastructure design and sets a measurable quality threshold to achieve in designing new cycle schemes • Local authorities must meet a certain Cycling Level of Service and safety in order for the scheme to be considered for funding • There are five core design principles listed in the guidance which are essential to promote active travel: coherent, direct, safe, comfortable and attractive. Infrastructure designers must aim to provide infrastructure which caters for the broadest range of people • Royal Tunbridge Wells lacks any high-quality cycle routes, especially within the town centre study area. Improving access to key destinations in a safe and attractive way is an important first step to improving mode share of active travel

Table 2-10: Best Practice Review

3 Transport & Movement Baseline

Chapter at a Glance

This chapter provides an overview of key transport baseline data in Royal Tunbridge Wells town centre. This includes physical and environmental data and a summary of existing travel behaviour patterns.

3.1 Physical Environment & Context

3.1.1 Physical Environment

Royal Tunbridge Wells is a spa town in the Kent countryside, 30 miles southeast of London, within the administrative area of Tunbridge Wells Borough. The town is situated at the top of the valley, with a steep hill running from The Pantiles at the bottom, up Mount Pleasant Road (where Tunbridge Wells Station is situated) to Royal Victoria Place at the top.

3.1.2 Air Quality

Petrol and diesel vehicles have a significant impact on air pollution which is detrimental to the environment and people’s health. The most harmful pollutants to health are Nitrogen Dioxide (NO₂) and Particulate Matter (PM); comprising of both PM₁₀ and PM_{2.5}. At a national level, 47% of all NO₂ emissions and 12% of PM pollutants originate from transport. The UK Government has set legal limits on these emissions:

- NO₂: Not to exceed 40 µg/m³ average concentration over a year
- PM_{2.5}: Not to exceed 25 µg/m³ average concentration over a year
- PM₁₀: Not to exceed 40 µg/m³ average concentration over a year

Figure 3-1 and Figure 3-2 identify the concentrations of NO₂ and PM₁₀ pollutants within the town centre study area and in the broader Royal Tunbridge Wells urban area. The concentration of NO₂ is highest in the study area, whereas PM₁₀ concentration is highest north of the town centre, in St John’s and High Brooms.

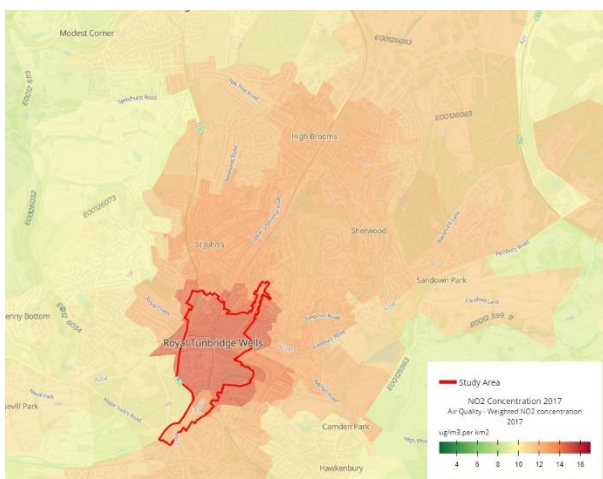


Figure 3-1: NO₂ Concentrations

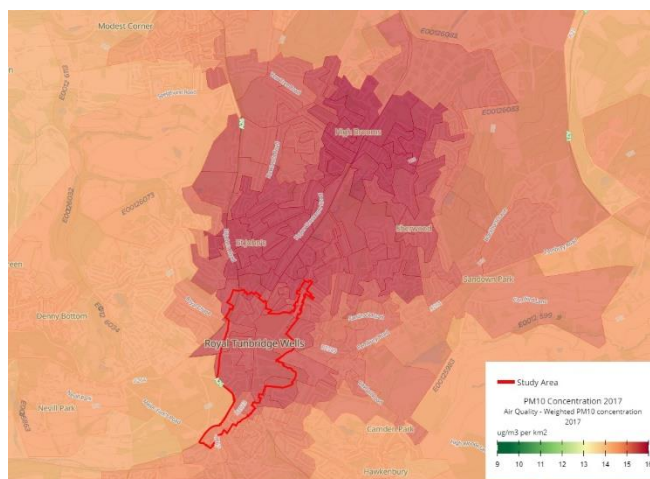
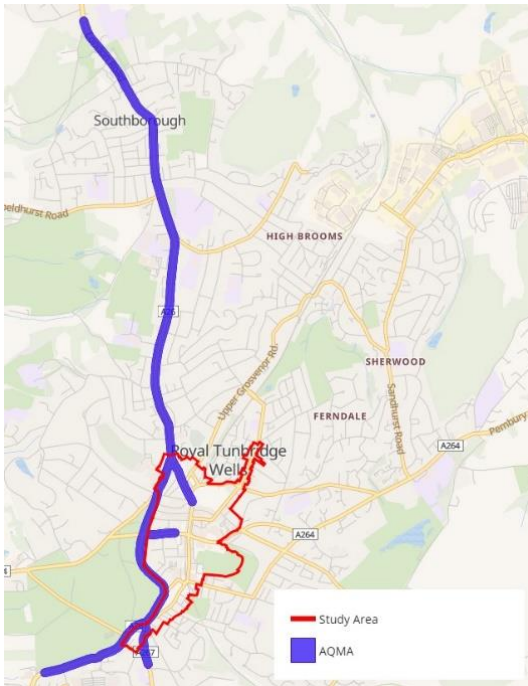


Figure 3-2: PM₁₀ Concentrations

Due to the high concentrations of pollutants exceeding NO₂ limits there is an AQMA currently in place on the A26 in Royal Tunbridge Wells. According to the Air Quality Annual Status Report (TWBC, 2020) at the end of 2016, TWBC commissioned a review of the AQMA boundaries which concluded that the northern and southern ends of the AQMA should be extended, but that the width of the AQMA could be reduced. The new AQMA took effect in September 2018. There has been a decline in NO₂ levels over the past five years, from 48 µg/m³ in 2014 to 34 µg/m³ in 2019.



It is worth noting that the increased uptake of EVs within the Town Centre will likely reduce NO2 emissions over time, however, PM emissions, associated with braking and tyre wear, are likely to remain.

Figure 3-3: Royal Tunbridge Wells AQMA

3.2 Active Travel Network

3.2.1 Walking

Part of Royal Tunbridge Wells town centre is pedestrianised, with areas such as the Pantiles and Calverley Road closed to road traffic. However, there are no Public Rights of Way within the town centre, or linking the centre to other areas of the town.

Figure 3-4 shows a 30-minute walking isochrone which displays the time it takes to walk from the centre of the study area to different areas of the borough. This shows that:

- There is good overall walking accessibility as demonstrated by the concentric nature of the isochrones
- Most of the study area can be reached within five minutes walking
- The rest of the study area is walkable in around 15 minutes, including the neighbourhood of St John’s
- Residents from the neighbourhoods of Sherwood, High Brooms, Hawkenbury and Ramslye can reach the town centre within 25 to 30 minutes

Figure 3-5 shows a similar graphic, this time showing the areas within 30 minutes’ walk from Tunbridge Wells rail station. The extent is smaller, excluding High Brooms and Sherwood north of the town centre.

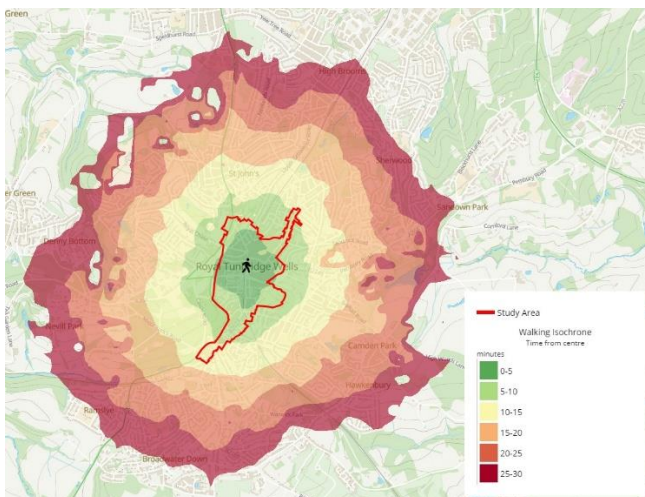


Figure 3-4: Walking Isochrone from Town Centre

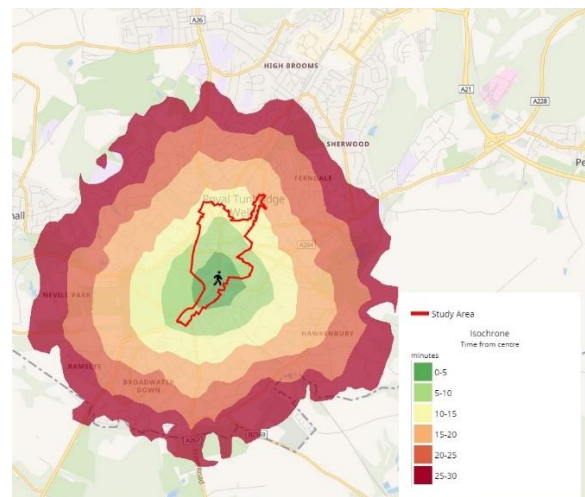


Figure 3-5: Walking Isochrone from Rail Station

There are no Public Rights of Way (PRoWs) within the town centre, and just a handful of PRoWs connecting the centre to suburban Tunbridge Wells via Tunbridge Wells Common. Some areas of the town centre are pedestrianised (see Figure 3-6), and there is wayfinding infrastructure around the town, however some of it is in disrepair or in need of maintenance as shown in Figure 3-7, and requires replacement or restoration to ensure a pleasant walking environment for pedestrians.

There are severance issues for pedestrians particularly at the northern end of the town near Royal Victoria Place, with high volumes of traffic and large junctions which can be difficult to navigate. The pavements in some places are in poor condition, making it difficult for pedestrians, particularly those with disabilities to move around.



Figure 3-6: Calverley Road, Tunbridge Wells Town Centre

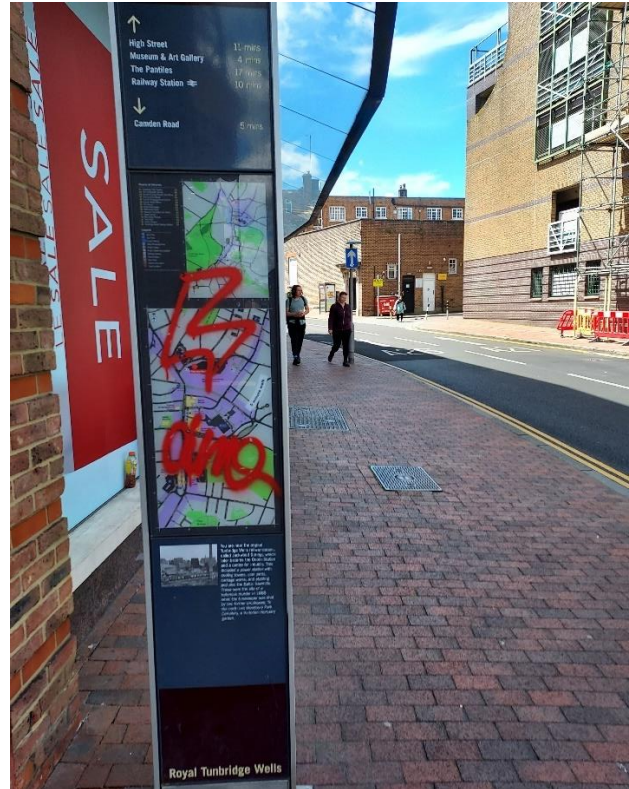


Figure 3-7: Wayfinding Totem with Graffiti

3.2.2 Cycling

There is very little segregated cycle route provision into or through the town centre, as demonstrated by Figure 3-8. There is a cycle route on the A26 corridor however the route is inconsistent, the corridor is busy with road traffic and is often congested which makes for an unpleasant experience for cyclists using the path.

Figure 3-8 shows that the National Cycle Network connects Pembury with Royal Tunbridge Wells, and that there are some existing cycleways running through High Brooms which has the potential to be connected to the town centre. Figure 3-9 further illustrates this point, with the gaps in the cycle mesh density showing the areas with no cycleways, and the broader Tunbridge Wells urban area showing very low cycle mesh density.

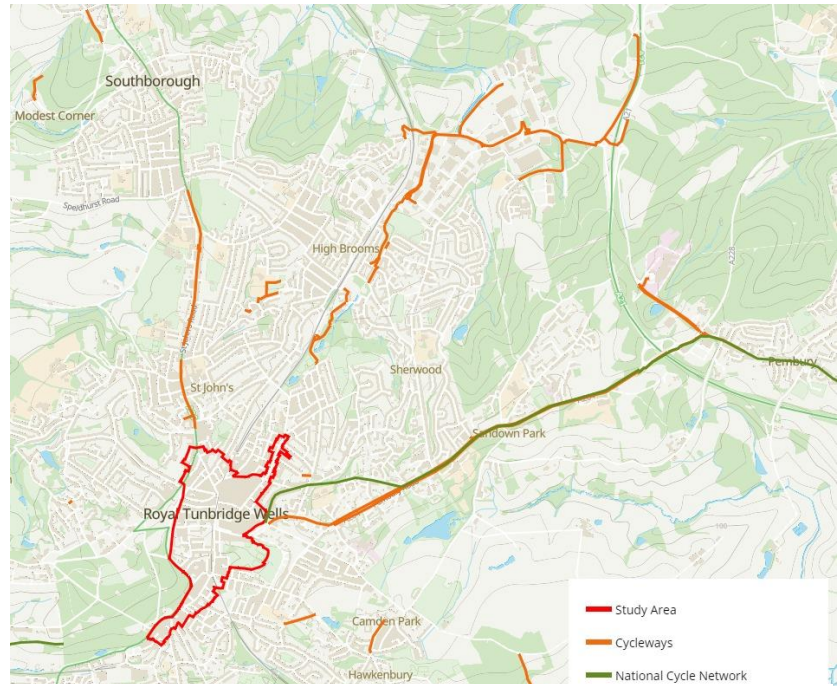


Figure 3-8: Cycleways & the National Cycle Network near Royal Tunbridge Wells

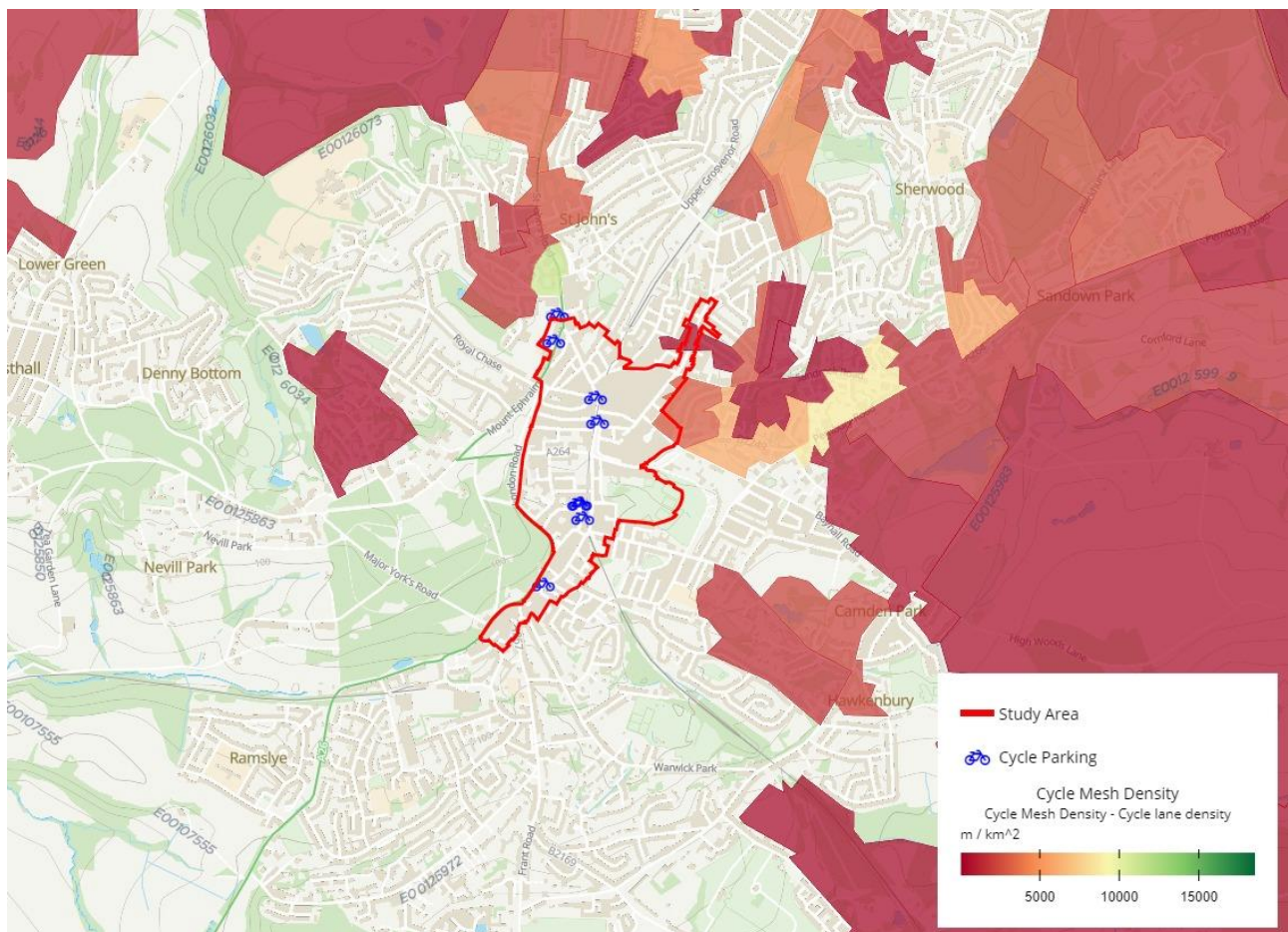


Figure 3-9: Cycle Mesh Density & Cycle Parking Availability

Figure 3-10 and Figure 3-11 both show 30-minute isochrones for travelling by bicycle and e-bike from the town centre respectively. By bicycle, the neighbourhood of Southborough is a 10–15-minute cycle, Pembury is a 15–20-minute cycle and Tonbridge, the nearest large town, is 25-30 minutes (a distance of 7.6km). By e-bike, a rider can access the entire Royal Tunbridge Well urban area within 10 minutes from the centre of town, Tonbridge becomes a 15–20-minute cycle, and a 30-minute trip includes Crowborough, a distance of 10.6km from the town centre.

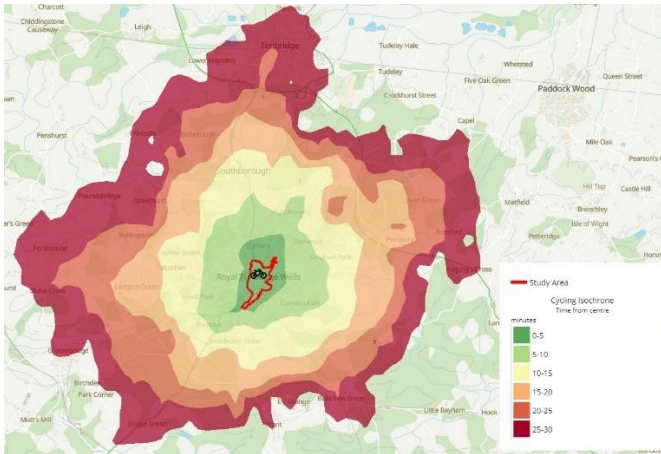


Figure 3-10: Cycling Isochrone from Town Centre

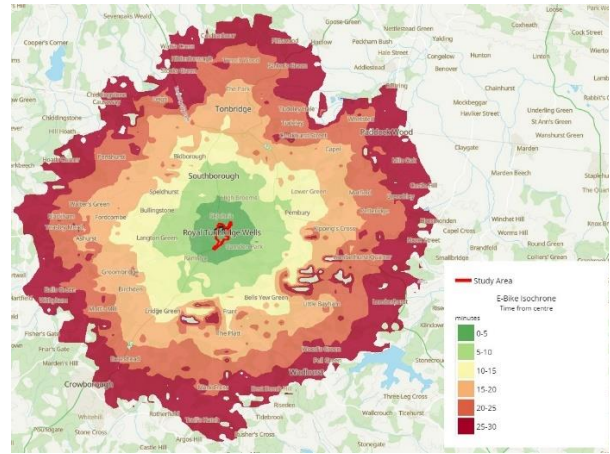


Figure 3-11: E-bike Isochrone from Town Centre

Analysis using the Propensity to Cycle tool (Lovelace, et al., 2017) gives an estimate of a cycling baseline for the population, as well as the potential for a change in cycling uptake given several scenarios. The analysis in this section uses commuting data from the 2011 Census to establish how likely people in the area surrounding Tunbridge Wells are to choose to cycle. Figure 3-12 shows that the propensity to cycle (based on Census data) in and around Tunbridge Wells town centre is low, with most areas between 0-3%, although it is slightly higher in the areas of Sherwood, Hawkenbury and Camden Park. The lack of existing cycle infrastructure is likely to have an impact on the propensity to cycle conclusion given that it is based on Census data, as is the topography of Tunbridge Wells. Figure 3-13 shows how the propensity to cycle would change based on a high e-bike uptake scenario; people are less likely to be put off by hilliness and thus propensity to cycle increases to 20% or higher in some areas surrounding the town centre.

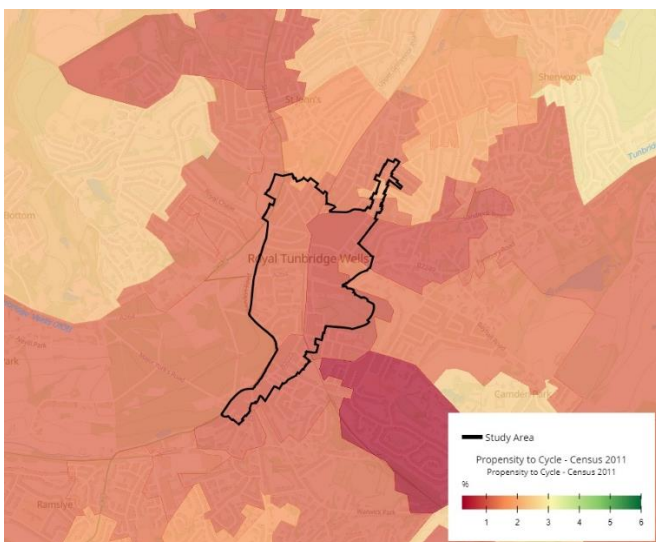


Figure 3-12: Propensity to Cycle (Census)

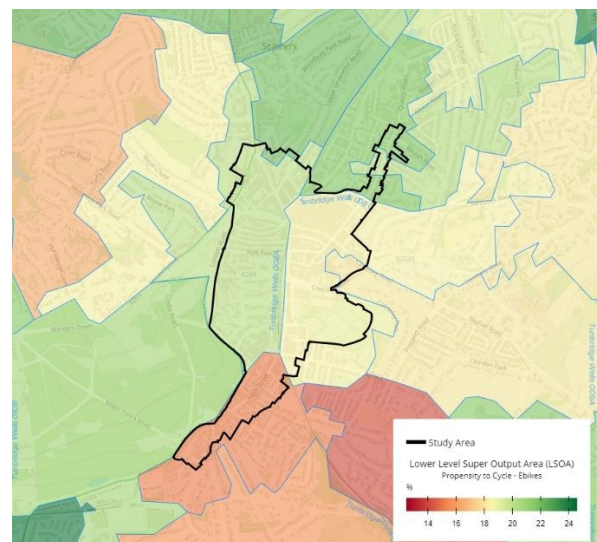


Figure 3-13: Propensity to Cycle (E-Bikes)

3.2.3 Future Active Travel Network

An LCWIP for Tunbridge Wells has been produced, identifying five key corridors for investment:

- Pembury to Tunbridge Wells town centre
- Langton to Tunbridge Wells town centre
- Hawkenbury to Tunbridge Wells town centre
- Southborough to the North Farm employment area
- Cross town centre

A route prioritisation exercise was undertaken, with the Hawkenbury via Camden Park route scoring highest, followed by Hawkenbury via Farncombe Road, the Pembury corridor, and a cross-town route.

For the walking routes, a 20-minute walking distance zone was used as a starting point, focusing on three key points in the town centre: the War Memorial, the railway station and the Pantiles. In total, 16 walking routes were identified for detailed analysis. Figure 3-14 shows the final route selection for both the walking and cycling analysis.

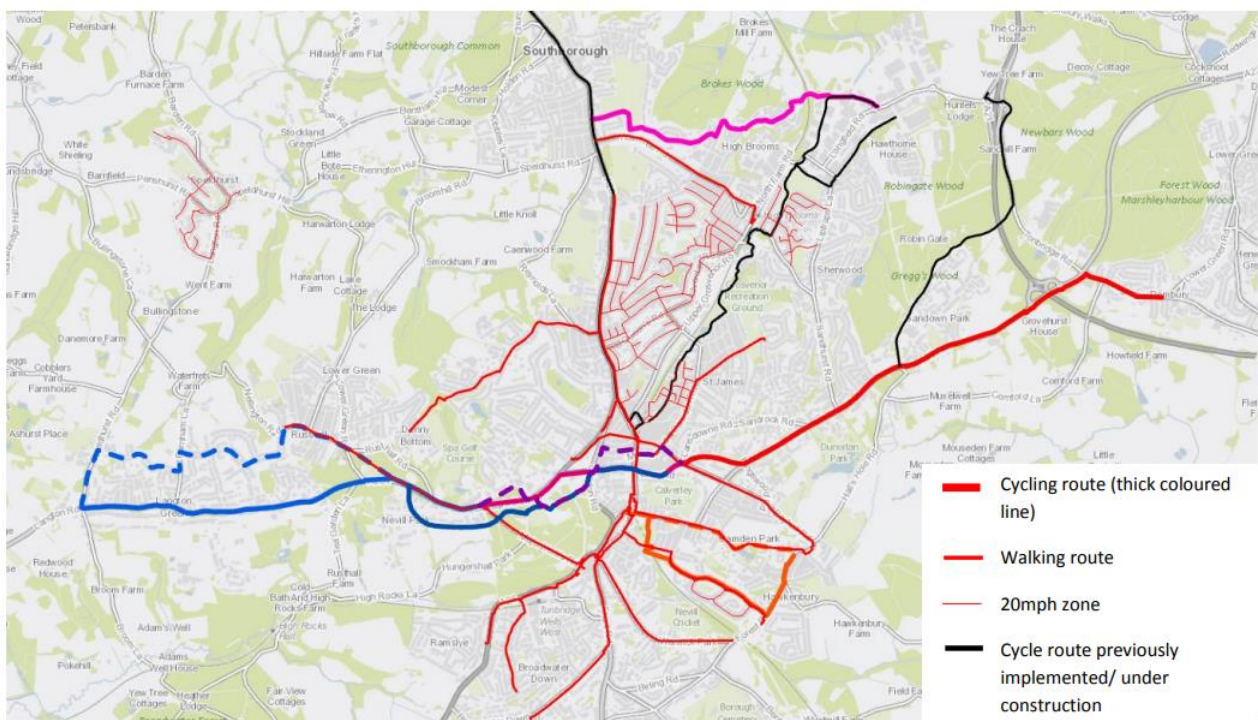


Figure 3-14: Final LCWIP Routes

Aside from schemes included in the LCWIP, feasibility designs have also been drawn up for an A264 active travel corridor improvement scheme. This is likely to include a new segregated cycleway and an improved footway for pedestrians. The requirement for this scheme is included in the Local Plan Transport Assessment (Table 2-9).

3.2.4 Strava Metro Analysis

Strava Metro is a tool available to local authorities which aggregates, anonymises and contextualises walking and cycling activities which are uploaded to the Strava app. While it is important to acknowledge that only a subsection of the population of an area may use Strava, studies have been undertaken, establishing that both travel patterns and route choice of Strava users generally mirror that of the general public.

Figure 3-15 shows the total trips undertaken by bike and by foot in 2019 (representing a pre-pandemic dataset) for Kent. Walking trips stay relatively constant throughout the year with a drop in February, and a peak in September, coinciding with the start of the new school year. Cycling, on the other hand, is more seasonal, with trips increasing during the summer months and dropping off in the autumn, likely driven by the poorer weather.

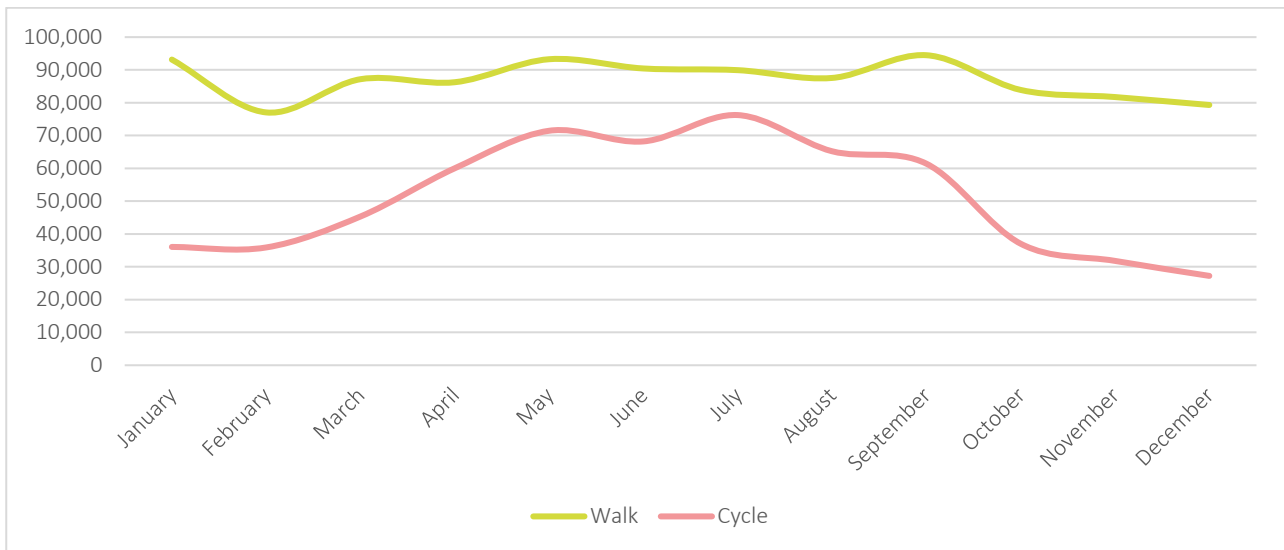


Figure 3-15: Total Walking and Cycling Trips by Month in 2019

Figure 3-16 gives an overview of walking and cycling uptake by age group. Walking is more popular with younger people (up to the age of 34), while for ages 35 and over cycling is more common.

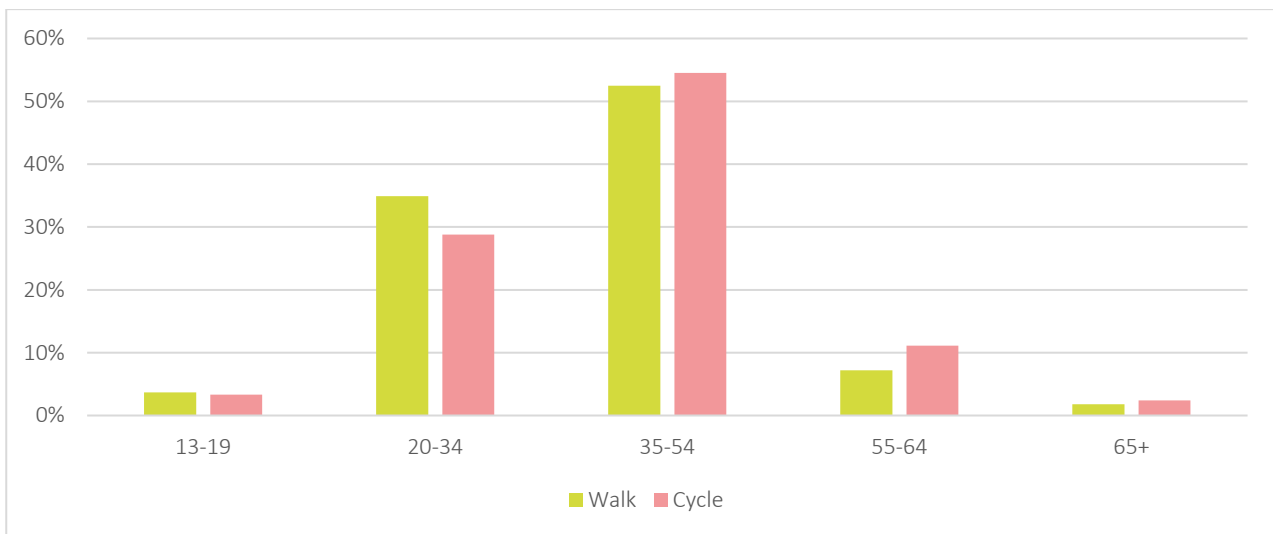


Figure 3-16: Distribution of Walking and Cycling Trips by Age

Figure 3-17 and Figure 3-18 indicate the routes throughout Royal Tunbridge Wells that see the greatest walking and cycling traffic. Darker colours indicate higher levels of activity. Routes seeing the highest levels of foot traffic include the A26, Mount Pleasant Road, and Pembury Road although there is activity distributed across the area, which is unsurprising given the retail and leisure offering around the town. By comparison, Figure 3-18 shows that the highest cycling flows are largely on key strategic routes through the town.

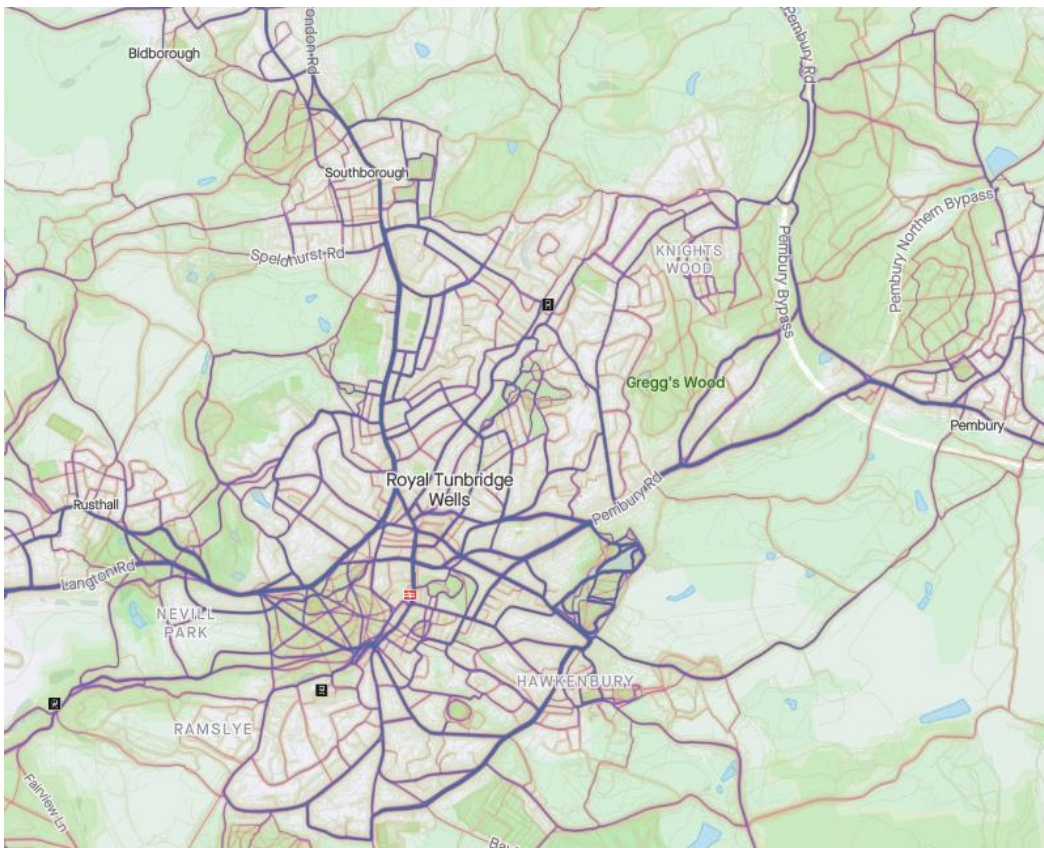


Figure 3-17: Heatmap of Walking Activity Across Royal Tunbridge Wells (Strava Metro, 2022)

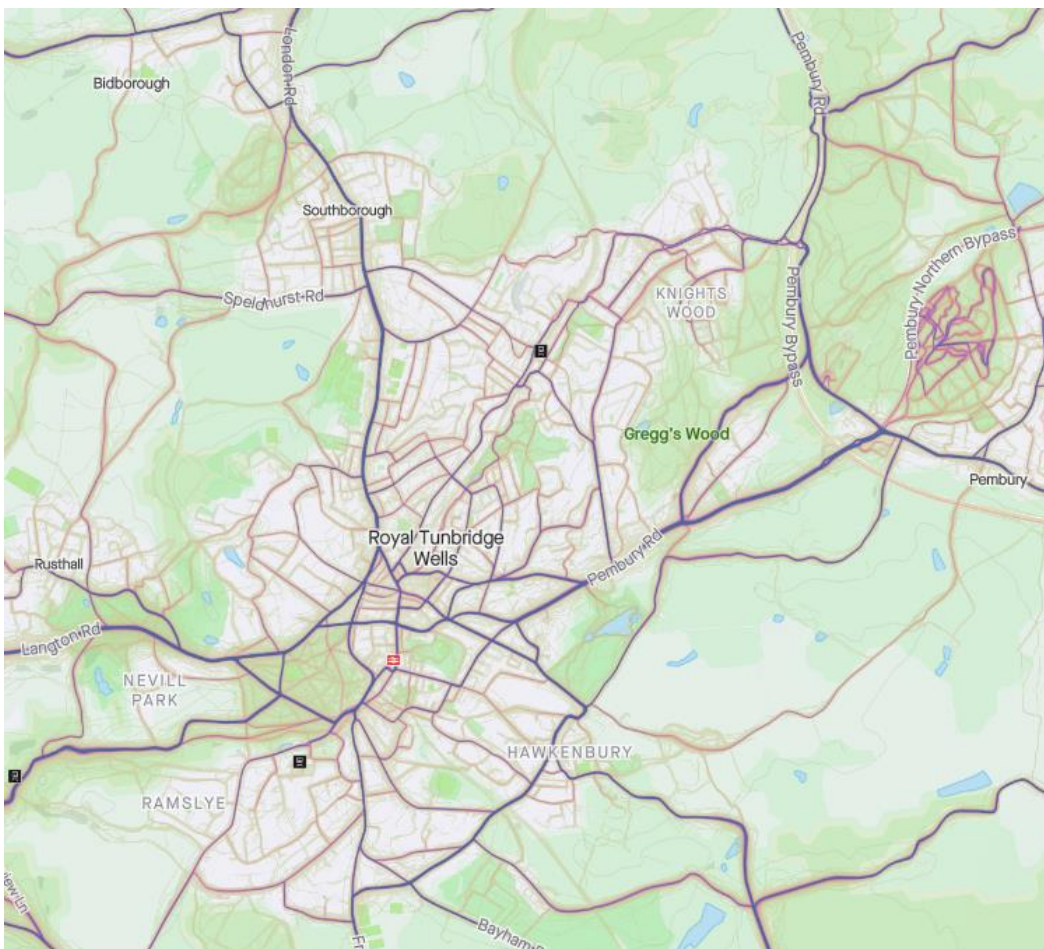


Figure 3-18: Heatmap of Cycling Activity Across Royal Tunbridge Wells (Strava Metro, 2022)

3.3 Public Transport Network

3.3.1 Bus

Tunbridge Wells Borough is served by a network of bus services operated by 12 bus companies, although most of the high-frequency services are run by Arriva Southern Counties. Most bus operators in the area use smart ticketing systems, and many are also accepting contactless payments on board their services.

Figure 3-18 gives an overview of the main bus network running through Tunbridge Wells town centre. There are links to Pembury, Rusthall, Tonbridge and Crowborough, as well as longer distance services running to Sevenoaks, Maidstone and Brighton. A number of services have been withdrawn in 2022 due to increased costs and reduced patronage since the COVID-19 pandemic. Operators are constantly reviewing services and making appropriate changes.

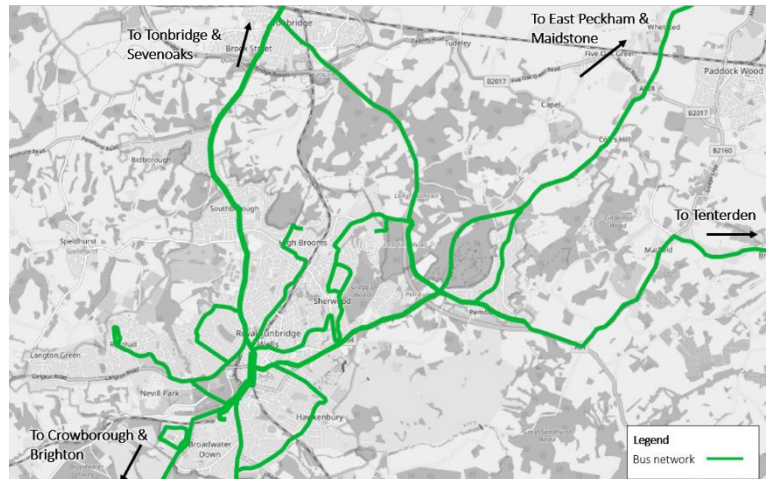


Figure 3-19: Bus Services in Tunbridge Wells

Figure 3-20 shows the location of all the bus stops within the study area and in the surrounding residential area. It highlights the volume of buses stopping on Mount Pleasant Road, the central spine through the town centre. There is an aspiration identified within the Infrastructure Delivery Plan to improve layover space for buses within the town centre (see Section 2.4.3).

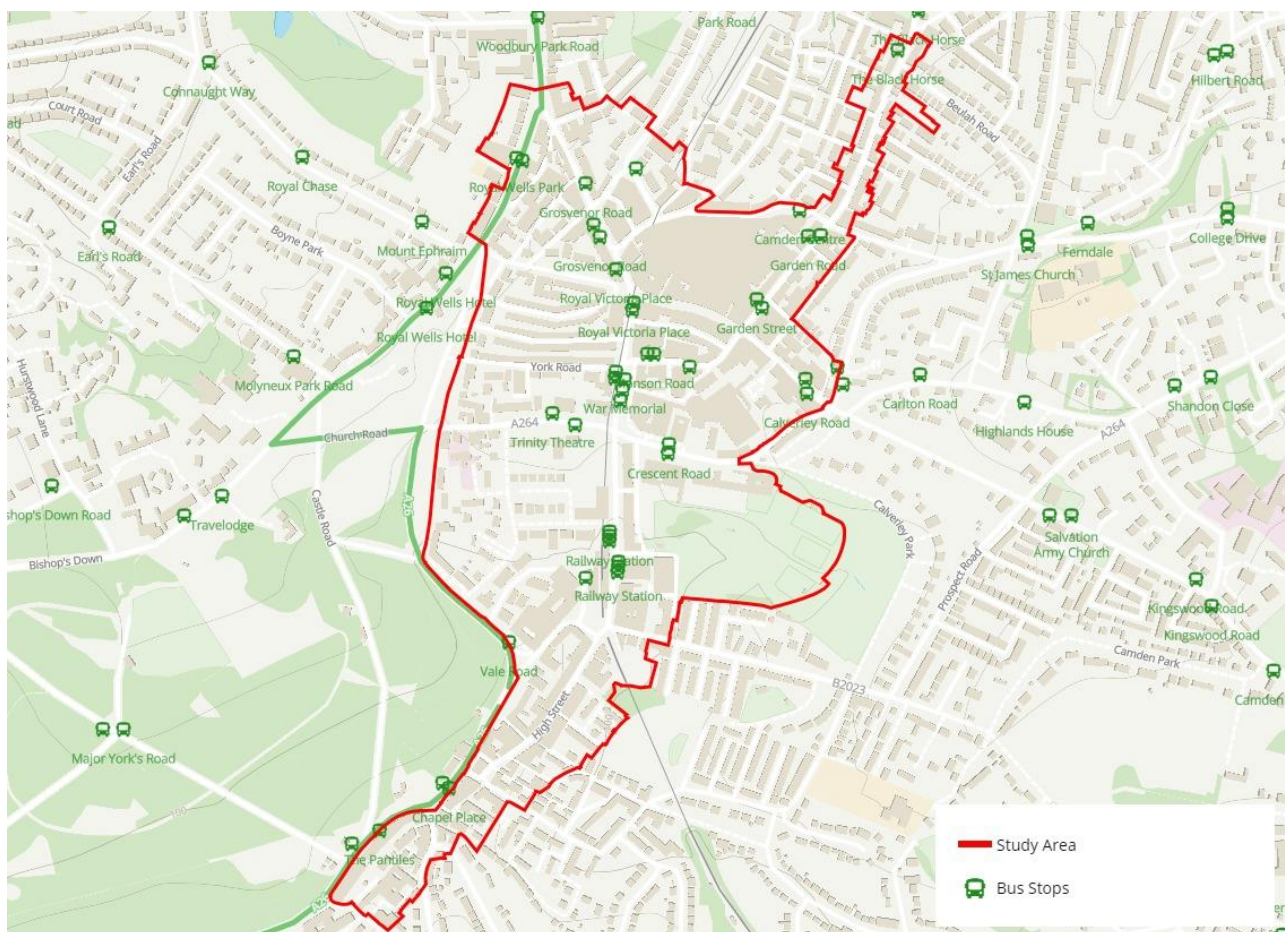


Figure 3-20: Bus Stops within the Study Area

Table 3-1 shows the routes and frequencies of all bus services that pass-through Tunbridge Wells (bustimes.org, 2022) (excluding those that run less than twice a day). There is relatively good connectivity to main regional centres including Sevenoaks, Maidstone and East Grinstead, as well as frequent local services to the hospital and between Rusthall and High Brooms. However there are a number of services to the smaller surrounding villages that run just a few times a day and not at all on Sundays.

Service	Route	Operator	Frequency
6/6a/6x	Maidstone – Tunbridge Wells	Arriva Kent & Surrey	Mon – Sat: Hourly Sun: Every 30 mins – 2 hours
7	Maidstone – Tonbridge – Tunbridge Wells	Arriva Kent & Surrey	Mon – Sun: Every 30 mins
222	Tunbridge Wells – Tonbridge – Shipbourne – Borough Green – Wrotham	Autocar Bus & Coach Services	Mon – Fri: 3 services Sat: Every 2 hours
228/229	Tunbridge Wells – Crowborough Circle	Compass Travel	Mon – Sat: 3 services
231/233	Tunbridge Wells – Edenbridge Hospital Grounds	Metrobus	Mon – Sat: 4 services
251/252	Heathfield – Tunbridge Wells	Stagecoach South East	Mon – Sat: Hourly
254	Hurst Green – Tunbridge Wells	Stagecoach South East	Mon – Sat: Hourly
256	Tunbridge Wells – Lamberhurst – Wadhurst	Autocar Bus & Coach Services	Mon – Fri: 4 services
277	Tunbridge Wells – Tunbridge Wells Hospital	Arriva Kent & Surrey	Mon – Sun: Every 30 mins
280	Molyneux Park – Tunbridge Wells	Go-Coach Hire	Mon – Fri: 5 services Mon – Sat: 6 services
281	Rusthall – High Brooms	Arriva Kent & Surrey	Mon – Fri: Every 15 mins Sat: Every 15 – 30 mins Sun: Every 30 mins
283	Tunbridge Wells – Ravenswood Avenue	Go-Coach Hire	Mon – Fri: 5 services Mon – Sat: 6 services
285	Speldhurst – Tunbridge Wells - Hawkenbury	Hams Travel	Mon – Sat: Every 45 – 90 mins
289	Southborough – Tunbridge Wells – Ramslye	Go-Coach Hire	Mon – Fri: 5 services
291	East Grinstead High St – Crawley Bus Station	Metrobus	Mon – Sat: Hourly Sun: Every 2 hours
297	Tenterden – Tunbridge Wells	Hams Travel	Mon – Sat: Every 90 mins to 2 hours
402	Sevenoaks – Tunbridge Wells	Arriva Kent & Surrey	Mon – Sat: Every 30 mins

Table 3-1: Local Bus Routes and Frequencies

Figure 3-21 further illustrates the varied access to bus travel; compared to the cycling isochrone the same distances take a much longer time to traverse (e.g. a bus to Southborough takes 25-30 minutes, while cycling the same distance takes 15-20 minutes). The radial pattern of the bus service provision is also clear with shorter journey times available on the central north-south spine aligned with the A26 compared to journeys from the east to west. There are also large parts of the surrounding rural area without bus access to the town centre.

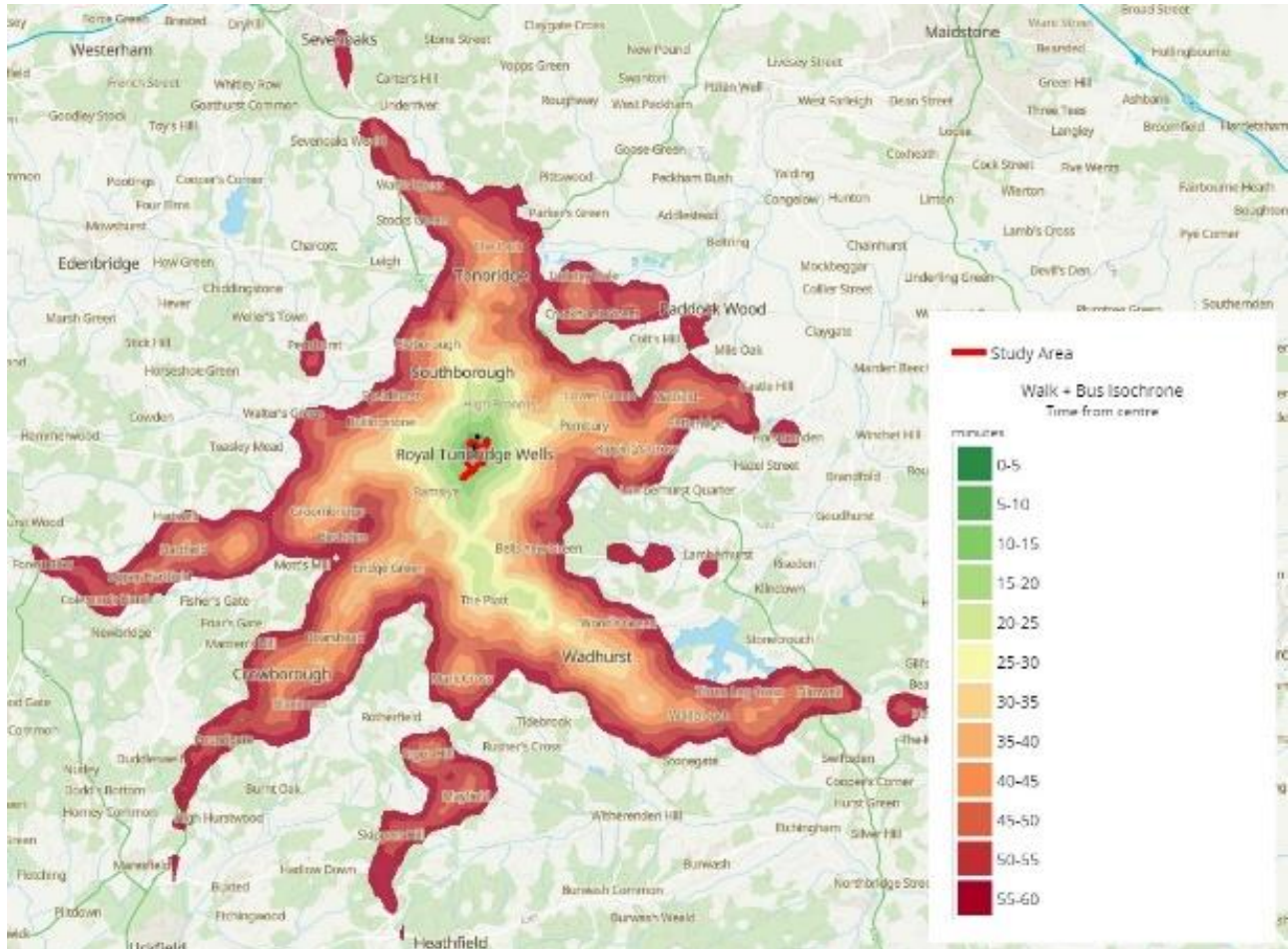


Figure 3-21: Bus Isochrone from Town Centre

3.3.2 Rail

Tunbridge Wells Railway Station is located in the south of the study area whilst High Brooms Railway Station is located around 2km to the north of the study area (see Figure 3-22). Tunbridge Wells Railway Station is equipped with the following facilities (National Rail, 2022):

- Staffed ticket office
- 118 cycle storage spaces
- 75 space car park operated by APCOA Parking
- 214 space car park operated by Southeastern Rail
- Taxi rank at both sides of the station

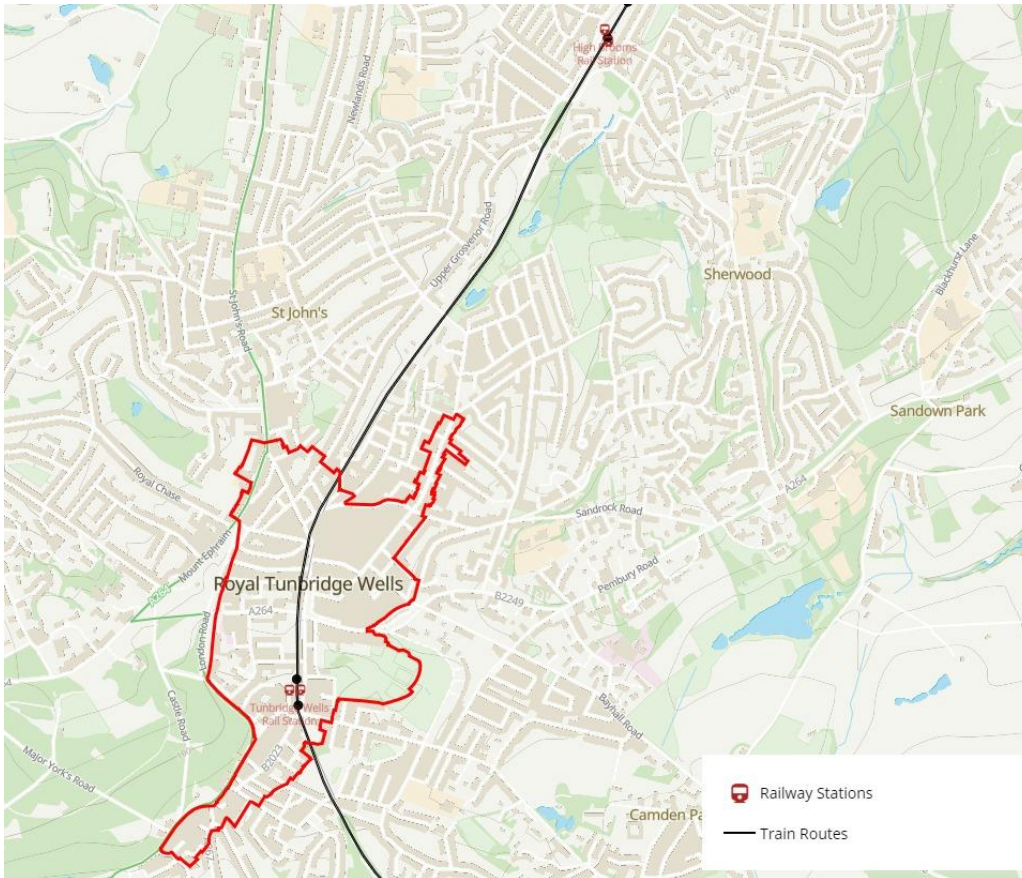


Figure 3-22: Railway Lines & Stations in Tunbridge Wells

Tunbridge Wells and High Brooms stations are on the London to Hastings mainline, with services via Sevenoaks and Tonbridge. There are some constraints on the route, including single track tunnels, insufficient power to support multiple larger trains and the requirement for a signals upgrade near Orpington. There have also been landslips on the line in recent years which has led to concerns about the safety and resilience of the route. Analysis of journey times from both stations to different key destinations is shown in Table 3-2 (National Rail, 2022). There are five to six peak hour services, and four off-peak services per hours. The average journey time between Tunbridge Wells and London is 55 minutes, and 37-50 minutes between Tunbridge Wells and Hastings.

	London Bridge	Charing Cross	Hastings
Tunbridge Wells	55 mins	66 mins	39 mins
High Brooms	52 mins	63 mins	43 mins

Table 3-2: Average Journey Times to Key Rail Destinations

3.3.3 Future Public Transport Network

There are several key improvements to the public transport network which have been identified in the Local Plan Transport Assessment (Sweco, 2019).

The Kent BSIP (KCC, 2021) identifies the Tunbridge Wells to Tonbridge centre as a priority bus corridor, which is currently affected by congestion. As such, a new bus priority right turn from Tonbridge Road towards Royal Tunbridge Wells at Woodsgate Corner signalised junction has been proposed to reduce delay for key right turn on bus route, enhancing accessibility from Tunbridge Wells Hospital to Pembury Road and Royal Tunbridge Wells. Other bus priority measures include the A264 Pembury Road corridor from Woodsgate Corner to Oakley School (towards Royal Tunbridge Wells town centre). This would consist of a dedicated lane to allow buses to bypass delay points at A21 junctions and reduce delay at Blackhurst Lane/Halls Hole Lane, as well as a bus only route through Calverley Park Gardens.

As demonstrated in Figure 3-21, the bus network outside of the immediate urban area is patchy with limited rural bus service provision. To combat this, there are proposals to develop rural on-demand bus service in east Tunbridge Wells connecting homes to key destination hubs such as rail stations, Paddock Wood, Tunbridge Wells Hospital and North Farm offering flexible routing to maximise demand.

A P&R feasibility study (WSP, 2018) was also carried out by WSP to investigate the potential for a new P&R serving Tunbridge Wells. The study evaluated several potential route options from three different P&R sites. The service modelling suggested that Pembury Road and Eridge Road were the more feasible locations, however subsequent investigation showed that a significant increase in car parking charges, alongside a major reduction in on-street parking, would be required in order to make the services viable. In addition, the services would likely still require public subsidy from TWBC. At the time that the study was undertaken this was not a possible course of action, therefore the scheme has not been pursued.

3.4 Road Network

3.4.1 Highway Network

The A21 to the east of the study area is the only strategic road in the borough, and is the responsibility of National Highways. The A21 Tunbridge to Pembury dualling scheme (opened 2017) has relieved the local road network of some strategic traffic, although there are now congestion issues further south.

The A26 and A264 both run through Tunbridge Wells, passing through other key towns in the borough, and the A264 in particular providing a connection to Gatwick Airport. Congestion, particularly in the peak periods, is an issue on both routes. Figure 3-23 shows all the key routes running through Tunbridge Wells town centre.

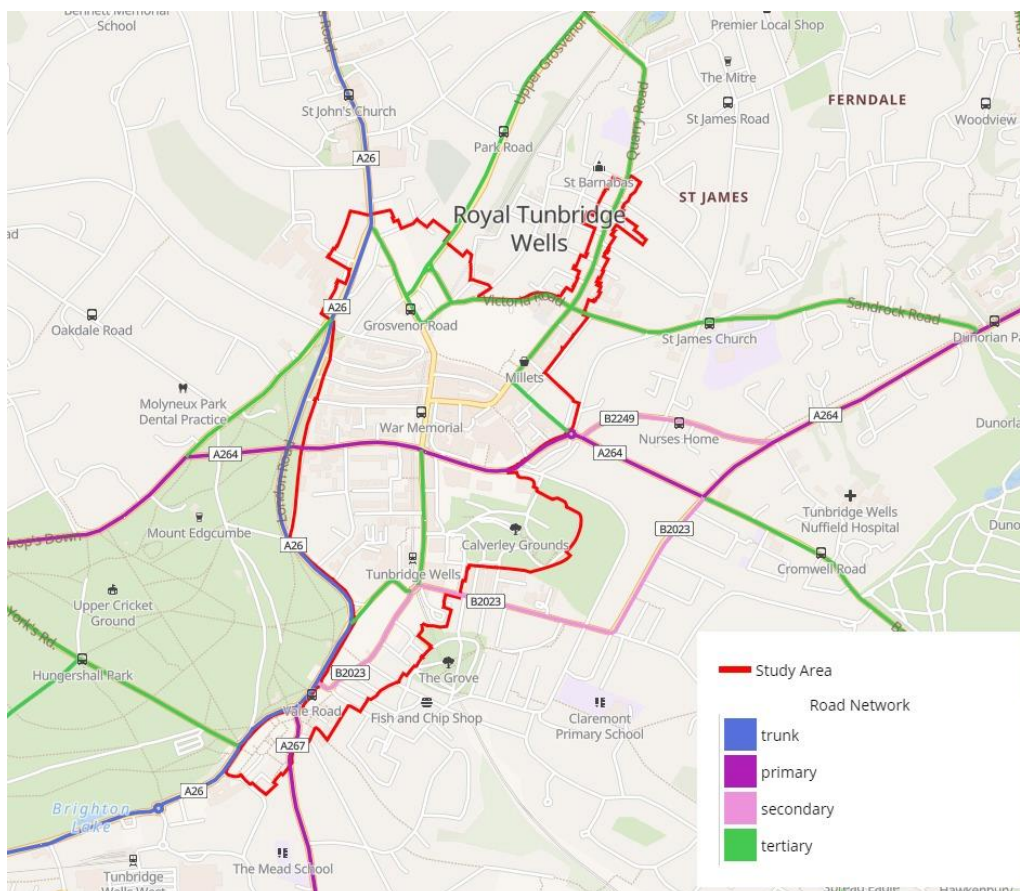


Figure 3-23: Road Network in Tunbridge Wells Town Centre

Table 3-3 shows the worst-case vehicular journey times between Tunbridge Wells town centre and some key destinations around Kent (Google, n.d.). This shows that journey times by car are nearly half that of public transport, further illustrating the factors that encourage people to rely on private cars for transport.

	Tonbridge	Pembury	Maidstone	Sevenoaks	West Malling
Tunbridge Wells	24 mins	18 mins	55 mins	35 mins	45 mins

Table 3-3: Journey Times from Tunbridge Wells (9am, 31 August 2022)

3.4.2 Parking

Parking is plentiful in and around Tunbridge Wells town centre, with 15 council-owned car parks within walking distance of the centre, and several other private car parks which are open to the public. Anecdotally, it is also understood that free on-street parking is widely available and, in some cases, causes issues, such as the residential streets around Tunbridge Wells Rail Station. Figure 3-24 shows the locations of the main car parks in and around the study area.

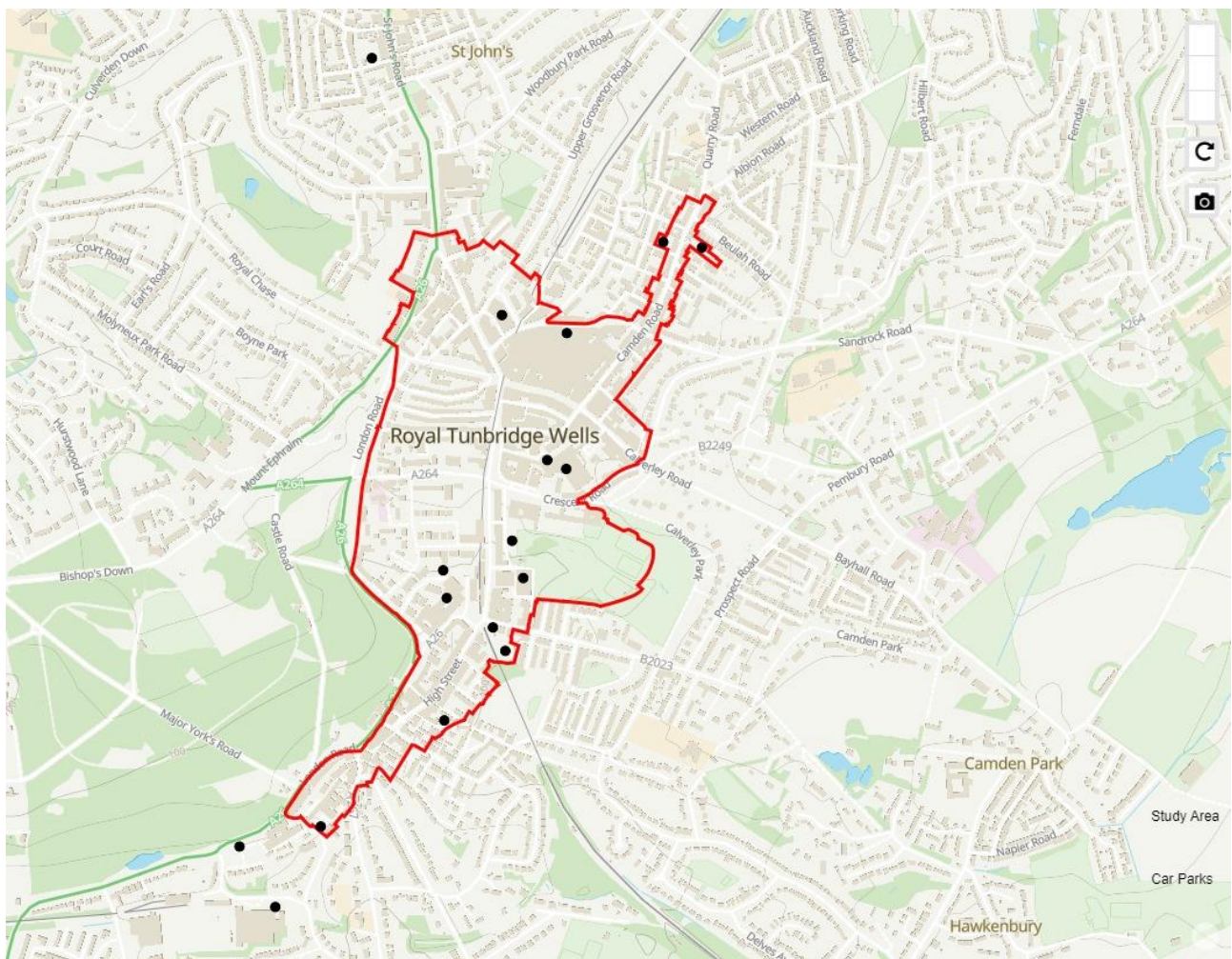


Figure 3-24: Car Park Locations Near Tunbridge Wells Town Centre

Table 3-4 gives further detail on the opening times, charges and capacity of each of the car parks in Figure 3-24 above (TWBC, 2022). Parking for two hours costs approximately £2.80 in the TWBC-owned car parks, and there is plenty of free off-peak parking available. Many of the car parks are classed as long stay, and therefore have cheaper tariffs for up to 24 hour parking.

Car Park	Spaces	Owner	Operating Hours	Charges (for 2h)	Free Parking
Crescent Road	1061	TWBC	24hrs	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 5am – 8am • Sun: 5am-10am, 5pm-6pm
Great Hall	199	TWBC	24hrs	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 5am – 8am • Sun: 5am-10am, 5pm-6pm
Meadow Road	440	TWBC	7am – 11pm	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 5am – 8am • Sun: 5am-10am, 5pm-6pm
Torrington	230	TWBC	24hrs	£1.40	<ul style="list-style-type: none"> • Mon to Sat: 5am – 8am • Sun: 5am-10am
Royal Victoria Place	769 ¹	TWBC	7am – 11pm	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 5am – 8am • Sun: 5am-10am
Town Hall Yard	100	TWBC	Weekdays from 6pm and weekends	£2.80	<ul style="list-style-type: none"> • Sat 5am - 8am • Sun 5am - 10am
Linden Park Road	52	TWBC	24hrs	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 6pm - 8am • Sat 6pm - Sun 10am • Sun 5pm - Mon 8am
John Street	64	TWBC	24hrs	£0.40	<ul style="list-style-type: none"> • Mon to Sat: 4pm - 8am • Sun all day
Pantiles	112	TWBC	24hrs	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 6pm - 8am • Sat 5pm - Sun 10am • Sun 5pm - Mon 8am
Beech St	38	TWBC	24hrs	£2.30	<ul style="list-style-type: none"> • Mon to Sat: 6pm - 8am • Sat 5pm - Sun 10am • Sun 5pm - Mon 8am
Little Mount Sion	18	TWBC	24hrs	£2.80	<ul style="list-style-type: none"> • Mon to Sat: 6pm - 8am • Sat 6pm - Sun 10am • Sun 5pm - Mon 8am
Camden Road	62	TWBC	24hrs	£2.30	<ul style="list-style-type: none"> • Mon to Sat: 6pm - 8am • Sat 5pm - Sun 10am • Sun 5pm - Mon 8am
Mount Pleasant	60	TWBC	Sat 6am – Sun 6pm	£2.80	<ul style="list-style-type: none"> • Sat 6pm – Sun 10am • Sun 5am – Mon 8am
The Old Coach Park	37	TWBC	24hrs	£2.00	<ul style="list-style-type: none"> • Mon to Sat: 6pm - 8am • Sat 5pm - Sun 10am • Sun 5pm - Mon 8am
Tunbridge Wells Station (A)	24	APCOA	24hrs	Season ticket only	None
Tunbridge Wells Station (B)	59	APCOA	24hrs	£7.30 daily	None

Table 3-4: Car Park Operating Details

¹ 1198 actual spaces – bays closed off from February 2022

Further analysis of available data has allowed for a better understanding of the distribution of people using the car parks for different lengths of time. The data is taken from mobile ticket sales (mostly through RingGo) so it is not possible to be sure that drivers have parked for the entire length of the booked session, however it does give a useful indication of the likely intentions of the driver when they arrived in the town centre.

	Royal Victoria Place	Pantiles	Beech St	Little Mount Sion	Camden Road	The Old Coach Park
Up to 1 hour	47%	24%	40%	30%	46%	8%
Up to 2 hours	33%	25%	21%	24%	22%	12%
Up to 3 hours	11%	16%	9%	10%	10%	8%
Up to 4 hours	3%	8%	3%	5%	4%	5%
Up to 5 hours	1%	3%	2%	2%	3%	
Up to 6 hours/All day	1%	1%	24%	29%	17%	66%
All day	2%	24%				

Table 3-5: Distribution of Car Park Ticket Time Periods²

Table 3-5 shows that most drivers use the car park for short stay purposes (up to two hours) which indicates running errands or accessing facilities in the town centre.

However, there is a larger proportion of people purchasing all day tickets in most car parks compared to those choosing three-to-five-hour stays. The Pantiles, Beech St, Little Mount Sion and Camden Road all have between 17% and 29% of tickets purchased classed as ‘all day’. It is likely that those purchasing all day tickets are commuters working in town centre, which suggests that they are a key target for modal shift away from private cars. The Old Coach Park sees 66% of visitors stay all day which is largely commuters, however there may be some tourists parking to visit the Spa Valley Rail Line.

3.4.3 Electric Vehicle Charging

The EV charging network in Tunbridge Wells is currently in its early stages, with very little infrastructure installed in either public or private car parks. Table 3-6 shows the two ChargePoint sites available in the town; one of which is in a TWBC-owned car park. There is some on-street residential charging capacity, however it is permit-controlled and therefore not available to members of the public (Zap Map, 2022).

Car Park	No. Bays	ChargePoint Type
Crescent Road	2	7kWh fast charger
Mount Pleasant (on-street taxi charging)	2	50kWh ultra-rapid charger

Table 3-6: EV ChargePoint Details

² Totals may not add up to 100% due to some car parks also having an overnight period

3.5 Collisions

Collision data from 2017 – 2022 is shown in Figure 3-25. There was a total of 88 collisions in the study area during this period, none of which were fatal. 80% of collisions were classed as slight, and 20% as serious. In terms of mode, 33% of the collisions involved pedestrians, and 11% involved cyclists.

Collisions are focused on the main roads within the town centre, although four accidents took place on Calverley Road, two of which were classed as slight, and two were serious. The largest cluster of collisions took place at the A264/Mount Pleasant Road junction, where eight slight accidents occurred. Other routes with a high volume of collisions are:

- Camden Road
- Grosvenor Road
- A264 Church Road/Crescent Road
- Mount Pleasant Road (south of A264 junction)

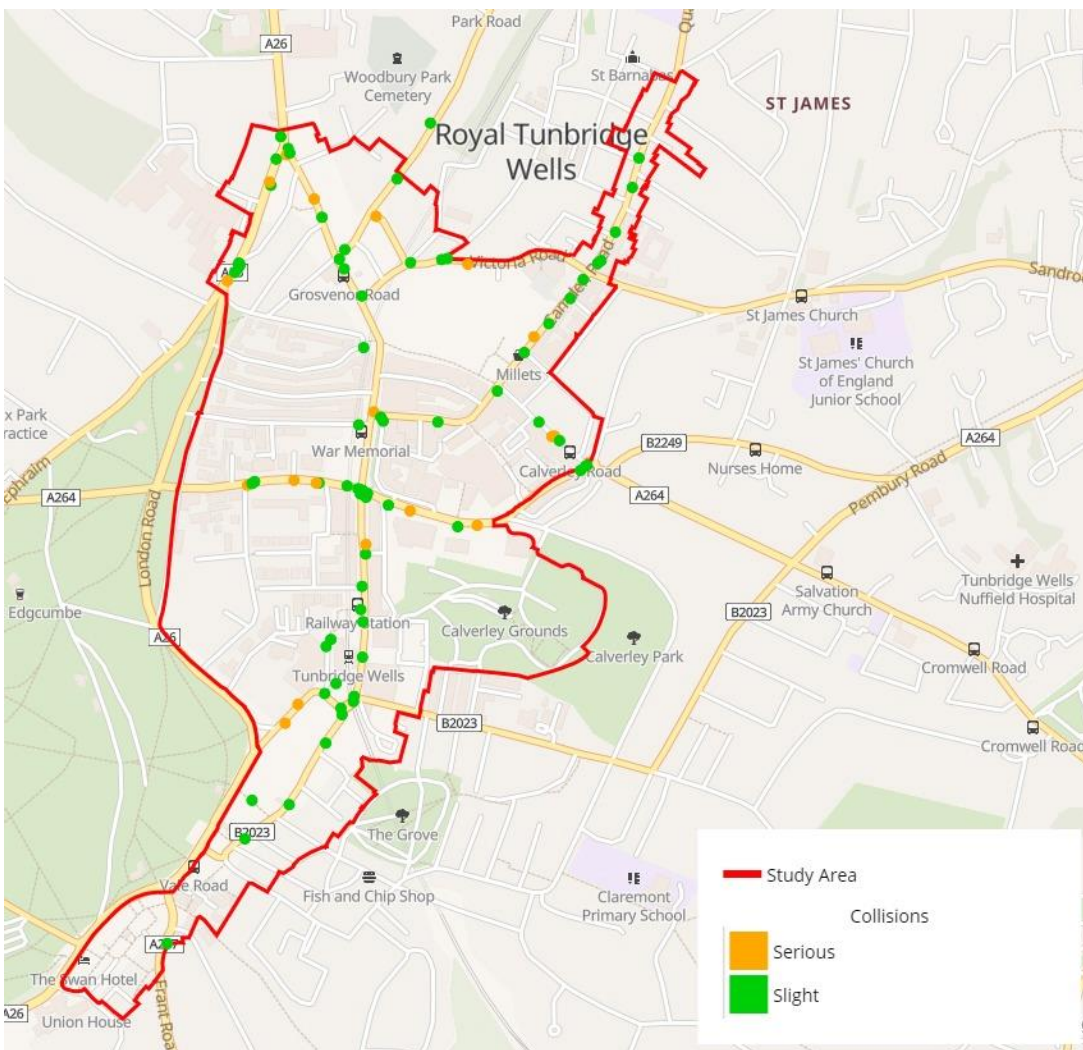


Figure 3-25: Collisions Between 2017-2022 by Severity

3.5.1 Future Road Network

There are several highway mitigations which have been identified as necessary to manage current levels of congestion, and to support the proposed growth within the Local Plan:

- A26 - reallocation of road space with smart traffic management to improve journey time reliability and provide infrastructure for sustainable modes (walk, cycle and bus)
- A26 junction at Broadwater Forest Lane/Bunny Lane- Increase capacity at junction and improve safety with signals
- Halls Hole Road/ A264 Pembury Road/ Blackhurst Lane junction improvement (roundabout scheme)
- Signalisation of junctions at Sandrock Road and Sandhurst Road on A264

The EV charging network also requires investment as demonstrated in Section 3.4.3 to encourage uptake of EV. TWBC is going out to tender for the installation of EV charging points in most of the council-owned car parks in Tunbridge Wells early in 2023.

3.6 Travel Behaviour

The following section outlines current travel patterns within Tunbridge Wells and the surrounding area, with analysis covering commuting mode share and distance. Understanding of the current situation helps inform the potential future mode shares as part of the future vision for the town centre.

Figure 3-26 presents the mode split data for the wards closest to Tunbridge Wells town centre. While it is important to acknowledge that the data is taken from the 2011 Census (Nomis, 2011), and it is therefore likely that patterns have changed (particularly the proportion of people working from home on Mondays and Fridays), this remains the most up-to-date data source on this topic. The mode share data indicates the following findings:

- Travel by car is the dominant mode for commuting across Tunbridge Wells, and has a particularly high mode share in Pembury, Capel and Brenchley and Horsmonden. On the whole, car mode share is consistent with the national average (58%)
- Train travel and walking have the next highest mode shares. The high level of train travel compared to other public transport is likely due to the economic draw of London and the good level of rail service provision
- Walking mode share is highest in St James', St John's and Culverden, which are adjacent to the town centre and therefore have good access to employment locally
- Bus use is extremely limited across the wards, and highest where the ward is served by a high frequency service as outlined in Table 3-1

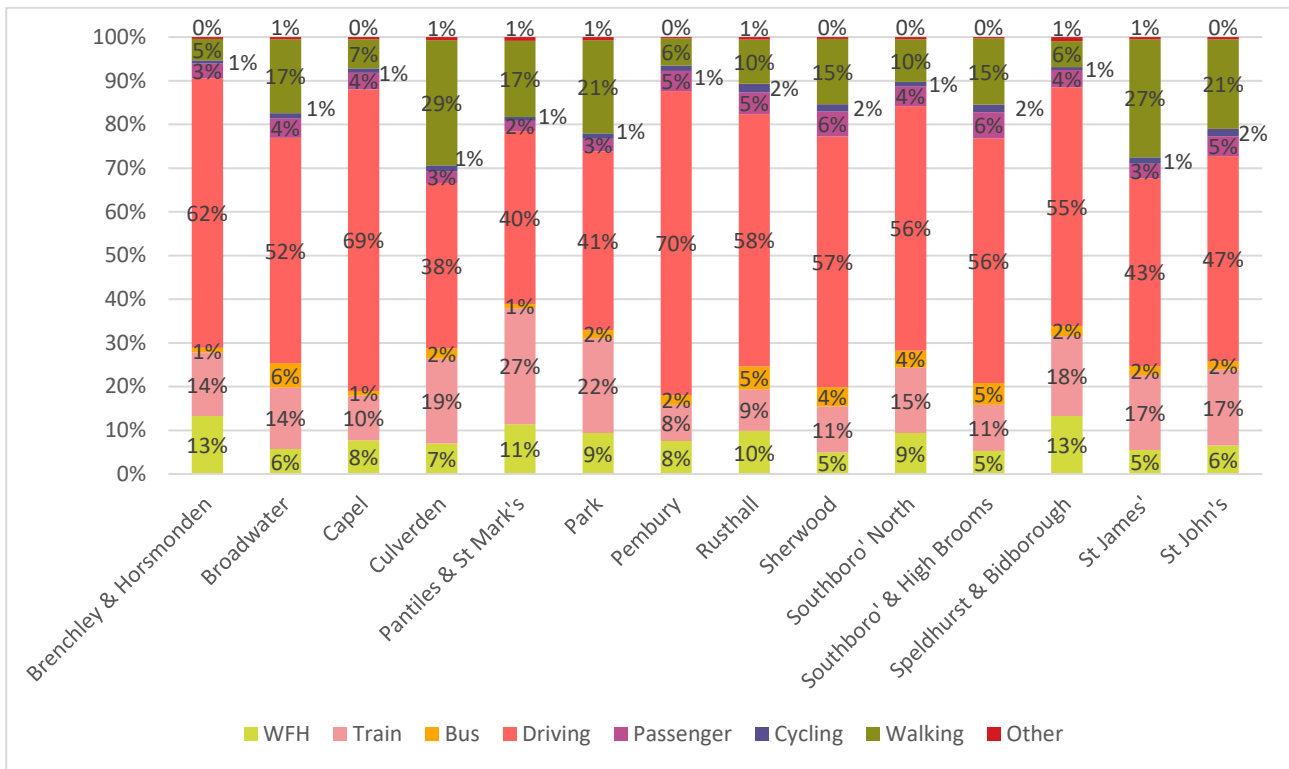


Figure 3-26: Commuting Mode Share

The distance of commutes is an indicator of how many trips have the potential to be converted to active and sustainable modes, with shorter commuting distances lending themselves to active commutes. Analysis of commuting distances (NOMIS, 2011) is shown in Figure 3-27 for the whole of Tunbridge Wells Borough, and indicates the following key findings:

- 31% of commutes are less than 5km which indicates a strong potential for modal shift away from the car, potentially towards active travel
- Over half of commutes are under 20km, a distance which could be covered by efficient public transport in conjunction with other e-assisted transport solutions such as e-bikes or e-scooters
- 13% of trips are between 40-60km which accounts for journeys to the centre of London, and therefore are likely to be undertaken by train

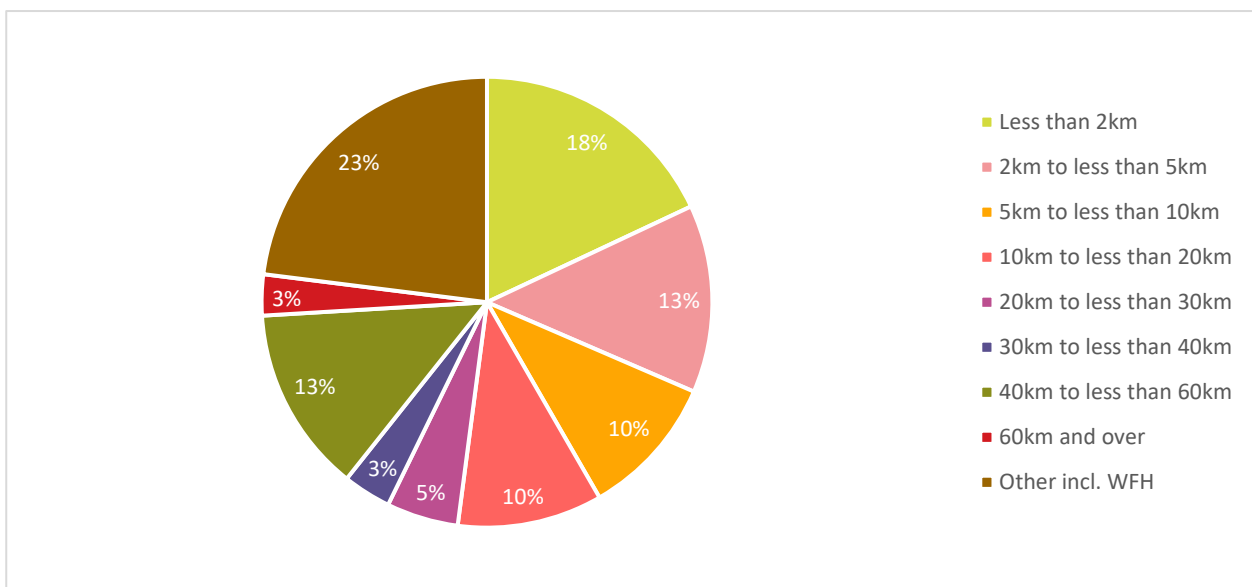


Figure 3-27: Commuting Distance in Tunbridge Wells

4 Carbon Emissions Baseline

Chapter at a Glance

This chapter provides an overview of key carbon baseline data in Royal Tunbridge Wells and within the town centre.

4.1 Overview

Decarbonisation progress in the town centre of Tunbridge Wells has been similar to the rest of the UK – total CO₂e emissions in 2018 (last available data and a good pre-covid baseline) were 35.2 ktCO₂e (domestic and transport emissions), which represents a 16.6% reduction compared to 2011 (the national average reduction for over same period for the domestic and transport sector was 12.5%).

Domestic emissions which include electricity, gas and other heating consumption represented 64% of the town centre’s emissions, of which gas consumption equated to 15.4 ktCO₂e and electricity consumption 6.7 ktCO₂e.

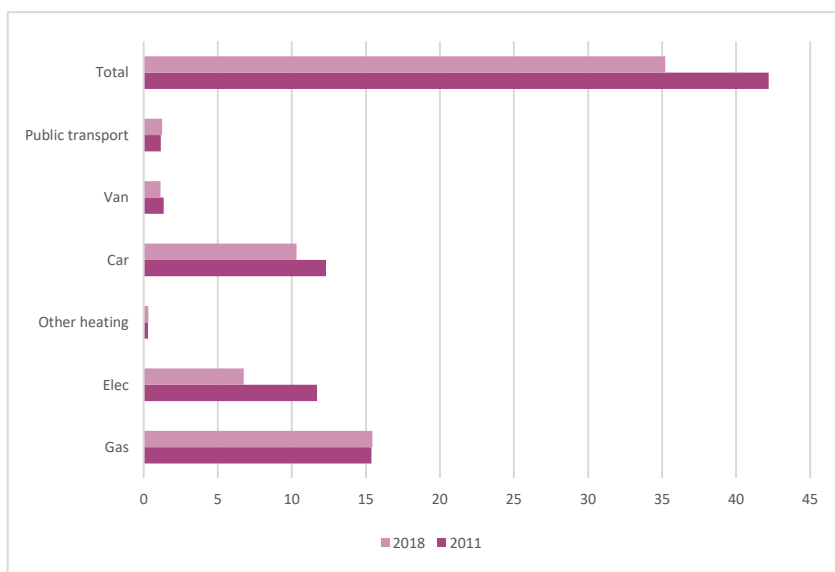


Figure 4-1: Summary Emissions Breakdown of the Town Centre (2011 vs 2018)

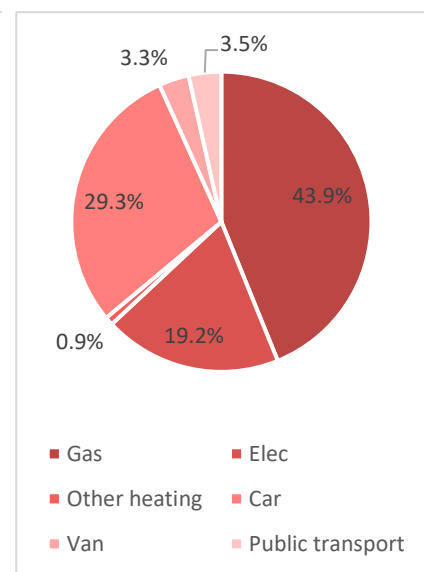


Figure 4-2: Emissions Breakdown by Source (2018)

The Lower Super Output Areas (LSOA) comprising the town centre are very even regarding their contribution to the emission total, ranging from 15% (student neighbourhoods of Culverden) to 19% (highly qualified professional area of Park).

Regarding consumption emissions, essentially the indirect emissions from purchased goods and services, these represented 49.2 ktCO₂e in 2018 (not included in the graphs or totals as this is best seen in isolation).

4.2 Methodology

This analysis is carried out via the CREDS place-based carbon calculator tool (Morgan, et al., 2021) which contains data on local authorities and each LSOA in England. These are essentially small statistical areas with an average population of around 1,500.

The tool uses data (such as gas and electricity consumption per LSOA) from BEIS, ONS mid-year population estimates, travel to work data from the Census (2011), and consumption data largely on the UK’s consumption-based carbon footprint.

LSOAs within the town centre and LSOAs the majority in the town centre have been included in the baseline carbon assessment.

4.3 Domestic Emissions

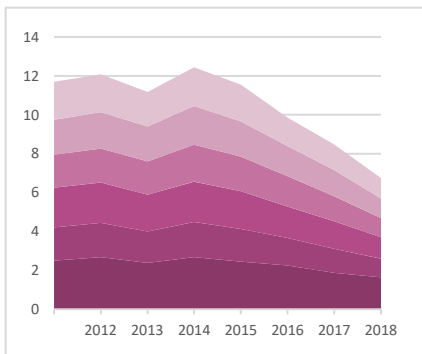


Figure 4-3: Total Electricity Emissions by Town Centre Area (ktCO₂e)

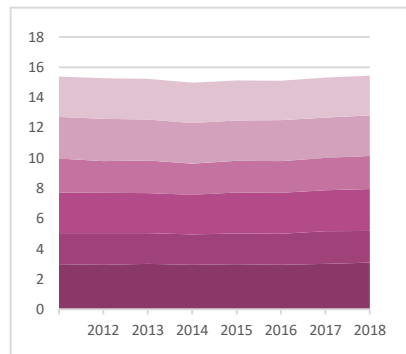


Figure 4-4: Total Gas Emissions by Town Centre Area (ktCO₂e)

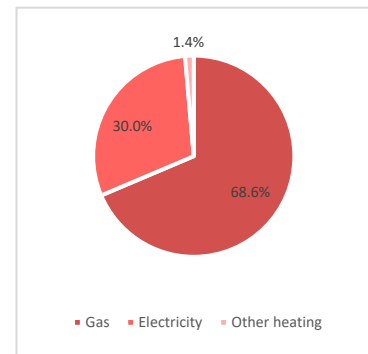


Figure 4-5: Domestic Emission Percentage Breakdown (2018)

Gas (15.4ktCO₂e), electricity (6.7ktCO₂e) and other heating consumption (0.3ktCO₂e) represented a combined 64% of the town centre’s total emissions in 2018, and reduced by 17.7% since 2011 (lower than the 23% UK average reduction).

Significant progress has been made reducing electricity emissions by 47.0% since 2011, a trend which started in 2014. Conversely, gas emissions have increased by 0.4% across the town centre (still less than the 4% national average increase), with small reduction (<2.8%) in St James (terraces and flats), Park (highly qualified professionals), and Pantiles and St Mark’s (highly qualified professionals). Data on other heating consumption is less accurate but reduced by 10.8%.

4.4 Transport Emissions

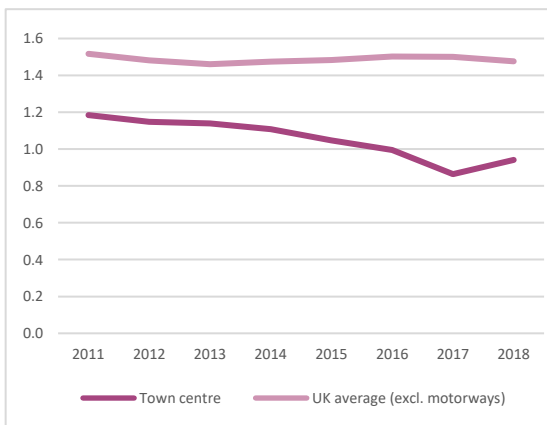


Figure 4-6: Per Capita Emissions (tCO₂e / capita)

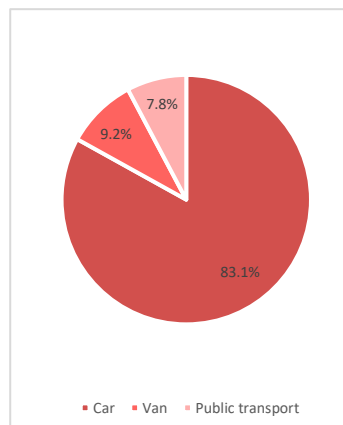


Figure 4-7: 2011 Transport Emission Sources

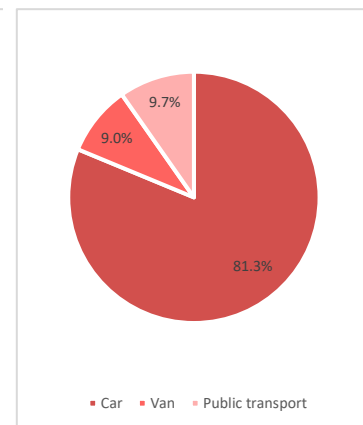


Figure 4-8: 2018 Transport Emission Sources

Town centre transport emissions (car, van and public transport) reduced by 14.3% since 2011, further demonstrated by the per capita emission reduction compared to the national average). At a national level, transport emissions (excluding motorways) rose by 2.2% (2011-18), which shows the town centre is well ahead of national transport decarbonisation.

The LSOA with the highest transport emissions in 2018 is Culverden (cosmopolitan student neighbourhood areas), which represented 19.6% of the town centre transport emissions.

The overall emission percentage breakdown between 2011 and 2018 is very similar, with 81.3% of transport emissions still be car related.

4.5 Goods & Services Emissions

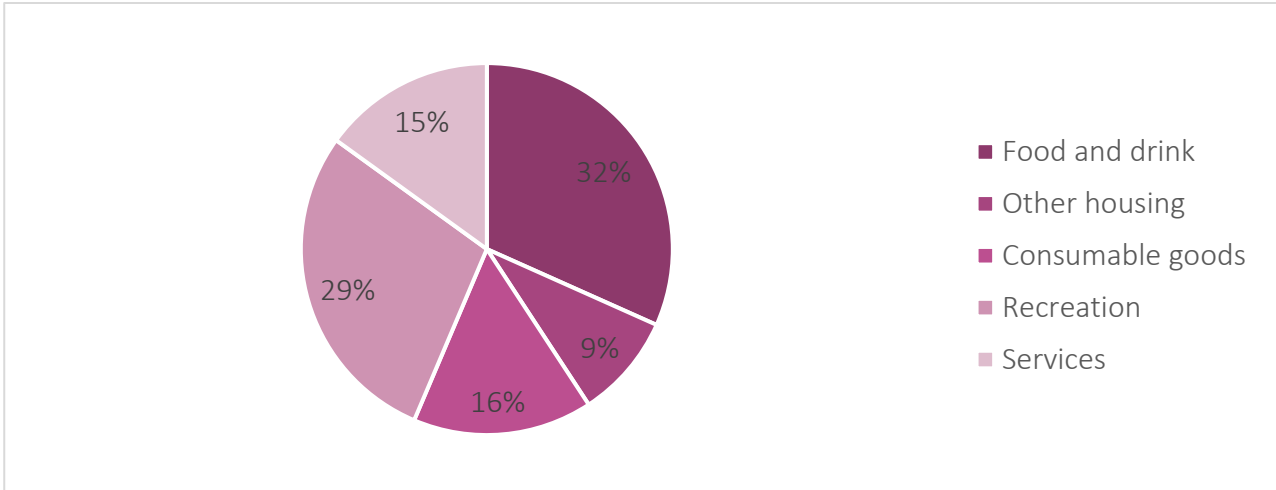


Figure 4-9: Breakdown of Consumption Emission Sources (2018)

Most consumption emissions (totalling 49.2 ktCO₂e in 2018), which are the indirect emissions of the city centre, are related to food and drink (32%) and recreation (29%).

4.6 Key Findings

Key to decarbonising the city centre is investing in decarbonising domestic buildings, which accounted for 22 ktCO₂e in 2018. Within this around two thirds of emissions were attributed to gas. It would be sensible to push residents to look into government funding to install heat pumps which will reduce gas consumption, and as a result gas emissions considerably. In addition, roof top solar PV will need to be increased to reduce domestic electricity emissions and reduce grid energy demand – a review of households with solar PV once the latest Census data is released would be interesting.

In regard to transport emissions, it is essential to push more commuters to active travel means and reduce the reliance on cars in the town centre.

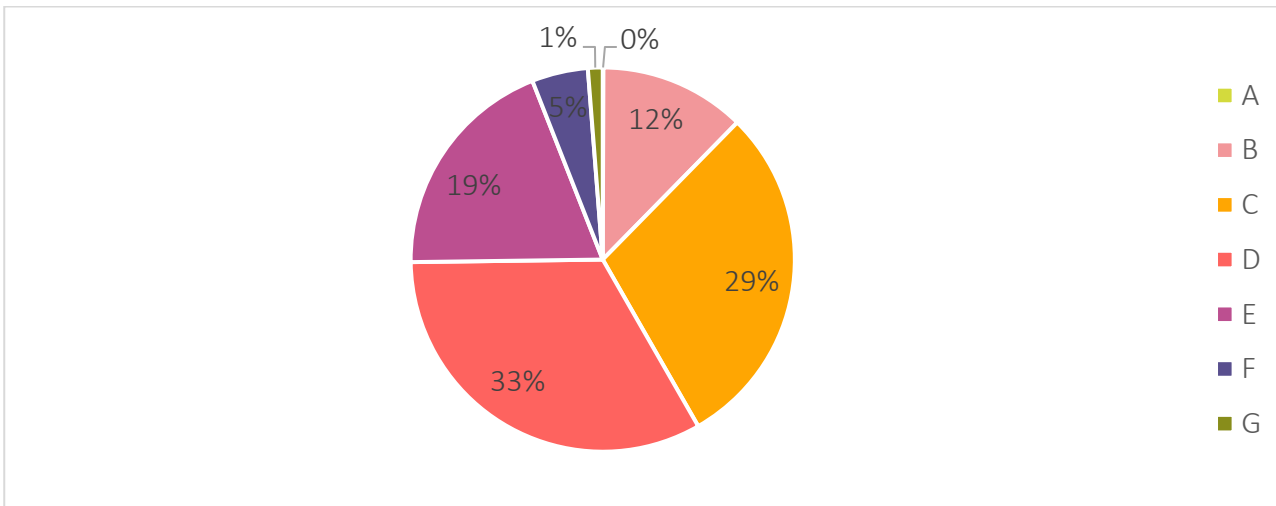


Figure 4-10: EPC Breakdown In the Town Centre

Figure 4-10 gives an EPC breakdown of the town centre’s building stock (based on 2011 Census) and shows that 58% of buildings are EPC D or lower. Only 12% of buildings are EPC B or higher, meaning there is huge potential to increase domestic energy efficiency and reduce domestic emissions.

Compared to the UK average emission reduction between 2011 and 2018, the town centre was 0.7% behind, meaning more work needs to be done to get ahead of the national average decarbonisation rate.

5 Strengths, Weaknesses, Opportunities & Threats Analysis

Chapter at a Glance

This chapter provides an overview of the SWOT analysis relevant to transport and decarbonisation for Royal Tunbridge Wells Town Centre.

5.1 Introduction

This section pulls together the findings from the baseline analysis above to form a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis for Royal Tunbridge Wells Town Centre covering transport and carbon emissions separately.

5.2 Transport & Movement SWOT Analysis

Table 5-1 summarises the SWOT analysis relevant to transport and movement.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Pleasant Walking Environment in Core and Pantiles: Walking environment in the town centre core and The Pantiles is attractive, and there is a level of pedestrianisation in place already (e.g. Calverley Road) • Green Space: The Common provides popular walking routes which provide access to the town centre requiring little on-road routing e.g. from Rushall • Low Speed Limits: 20 mph speed limits in the centre make it a better experience for walkers and cyclists • Good Rail Connectivity: Good rail connections to London/Hastings • Successful Car Club: Co-Wheels operates in Tunbridge Wells, with six cars in and around the town that have their own dedicated parking spaces • Frequent Bus Services to Key Locations: There is a frequent bus service along the A26 between Tonbridge and Tunbridge Wells 	<ul style="list-style-type: none"> • High Quality Cycle Infrastructure Absence: Absence of safe LTN 1/20 compliant cycling infrastructure providing connectivity to town centre, and limited space for road space reallocation • Traffic & Pedestrian Severance: Congested and heavily trafficked routes surrounding and through the town centre disrupts walking connectivity and results in safety issues (e.g. on A26, A264, A26/Grosvenor Road roundabout) • Congestion: Congestion is a key issue, particularly in the peak periods (e.g. A26, A264) on radial routes into the town • Dominance of the Car: Cars are the dominant mode of transport in the town centre, bringing issues such as congestion, pollution and pavement parking • Lack of Provision for Coach Parking / Fewer Services: Lack of coach parking causes similar problems to the lack of layover space for buses, encouraging congestion. The National Express coach route to London also appears to have been paused since the COVID-19 pandemic • Topographical Challenges: The town centre is situated on a hill which can disrupt walking connectivity – particularly those with mobility impairments • Lack of Natural Wayfinding / Sense of Arrival at Station: Not immediately obvious how visitors can walk to the town centre from the Rail Station • Shortage of Layover Space for Buses: Studies have demonstrated there is a future need for increased layover spaces for buses in the town centre to accommodate expected increases in bus routes serving the town centre • Bus Services: There are a lack of routes to rural areas, and fares are expensive • Plentiful Low Cost Parking: High levels of low cost/free parking on- and off-street reduces attractiveness of using sustainable modes for journeys to and from the town centre e.g. on Dudley Road and Molyneux Park Road • Lack of EV Charging Infrastructure: Very limited on-street charging facilities • Poor Air Quality: There is an Air Quality Management Area present on the A26 • Public Realm Issues: Some areas of the town have poor quality paving and have large amounts of clutter on the footpaths making it difficult and dangerous to navigate for pedestrians and particularly those with disabilities

Opportunities	Threats
<ul style="list-style-type: none"> • Active Travel: Residential areas are within a realistic walking, wheeling and cycling catchment of the town centre • E-Bikes & Micromobility: Introduction of e-bikes and micromobility to tackle topography/longer journey mode share (e.g. inter urban) • EV Charging Network Expansion: Develop EV charging network to encourage higher levels of ownership • Peak Spreading: There has been a post-COVID reduction in peak hour traffic • Reallocate street space from buses to pedestrians: Particularly in the central spine of the Town Centre • Edge of Town P&R site: Large new developments could support the business case for a new P&R site to reduce traffic routing to and from town centre car parks • Potential for Streetscape Improvements at Northern End of Town Centre: Through reallocation of road space to make public realm improvements • New LCWIP Routes: Implementation of new LCWIP routes has the potential to enhance connectivity for people cycling and walking, and has been supported by TWBC Councillors • Bus Fares: Arriva is currently offering a reduced bus fare of £1.50 on all services after 7pm. Anecdotally, this has increased evening patronage and, combined with the government’s £2 fare cap from January to March 2023, has the potential to draw new bus users to the town’s services • Improvements to Mount Pleasant Road: Mount Pleasant Road acts at the main route to the top of the town from the station, but is currently not a pleasant environment for pedestrians. Making urban realm improvements to provide a more obvious corridor and welcoming environment could encourage people to walk rather than using taxis • Collaboration: Between bus operators and KCC public transport with potential for innovation in service provision and improved infrastructure (e.g. Real Time Information at stops) 	<ul style="list-style-type: none"> • Bus Service Viability Post-Covid: Post-covid challenges to bus provision due to the loss of some services • Political Challenges: Regarding bus priority measures and reallocation of road space • Potential Political Conflict of Road Space Reallocation Measures: Conflicts between need for road space reallocation to serve people walking / cycling versus bus and car journey times • Increased Travel Demand: New housing developments on the edge of Royal Tunbridge Wells will increase overall travel demand in accessing both schools across town and the town centre itself which will need to be managed to maximise sustainable transport opportunities and reduce the threat of increased congestion • Delivery Vehicles: There are a high volume of delivery vehicles both accessing the retail areas in the town centre and the surrounding residential areas • Rat-Running: There are high levels of traffic using residential roads to avoid congestion and speeding when they do so, which causes safety issues • High Levels of Car Ownership: Makes it challenging to encourage mode shift when the majority of the population have a car available to them • Funding: There is likely to be a lack of funding opportunities from the government in the immediate future

Table 5-1: Transport SWOT Analysis

5.3 Carbon Emissions & Decarbonisation SWOT Analysis

Table 5-2 summarises the SWOT analysis relevant to carbon emissions and decarbonisation.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Carbon Emission Reduction Pace: Carbon emissions reduced by around 16.6% between 2018 (pre-COVID) and 2011 from all sources in the town centre. This was a faster rate than the national reduction average of around 12.5% • Carbon Emissions from Electricity: Carbon emissions from electricity in the town centre almost halved between 2018 and 2011 • Per Capita Transport Emissions: Per capita transport emissions in the town centre in 2018 were around 1.0 tonne of CO₂e which was less than the national average of around 1.4 	<ul style="list-style-type: none"> • Gas Heating Reliance: Carbon emissions associated with gas use have increased by around 0.4% between 2011 and 2018; albeit this is less than the national average of a 4% increase • Overall Energy Emissions Stagnation: Carbon emissions associated with energy have remained largely static between 2018 and 2011, largely as a result of no reductions associated with gas • Reliance on the Private Car: The volume of car journeys in the area needs to be addressed in order to reduce carbon emissions from transport
Opportunities	Threats
<ul style="list-style-type: none"> • Renewable Heat Source Potential: There is an opportunity to implement measures, such as heat pumps or district heating networks which reduce the town centres' reliance on gas as a heating source • Rooftop Solar PV Potential: Measures should be considered to further reduce emissions from electricity consumption from the grid in the town centre, such as through measures which increase solar PV generation • Modal Shift Potential: There is an opportunity for more trips to and from the town centre to be made by sustainable modes to reduce transport-related emissions 	<ul style="list-style-type: none"> • Increased Demand: New housing developments on the edge of Royal Tunbridge Wells could increase carbon emissions in the town centre

Table 5-2: Carbon Emissions and Decarbonisation SWOT Analysis

6 Next Steps

The next steps following finalisation of this Transport & Carbon Baseline Report are:

- Consolidation of key evidence as part of a broader Town Centre Baseline Report led by LDA Design
- Facilitation of stakeholder engagement workshops in Royal Tunbridge Wells covering transport, movement and decarbonisation
- Development of an overarching future vision for the town centre and key principles relevant to transport, movement and decarbonisation for the future Town Centre Plan

Bibliography

BEIS, 2021. *Net Zero Strategy: Build Back Greener*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf

[Accessed 13 September 2022].

BEIS, 2020. *Energy White Paper: Powering Our Net Zero Future*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/945899/201216_BEIS_EWP_Command_Paper_Accessible.pdf

[Accessed 02 09 2022].

BEIS, 2020. *The Ten Point Plan for a Green Industrial Revolution*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf

[Accessed 01 09 2022].

BEIS, 2021. *Heat & Buildings Strategy*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044598/6.7408_BEIS_Clean_Heat_Heat_Buildings_Strategy_Stage_2_v5_WEB.pdf

[Accessed 02 09 2022].

BEIS, 2021. *Industrial Decarbonisation Strategy*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/970229/Industrial_Decarbonisation_Strategy_March_2021.pdf

[Accessed 12 September 2022].

BEIS, 2021. *UK Hydrogen Strategy*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1011283/UK-Hydrogen-Strategy_web.pdf

[Accessed 02 09 2022].

bustimes.org, 2022. *Tunbridge Wells*. [Online]

Available at: <https://bustimes.org/localities/tunbridge-wells>

[Accessed 01 09 2022].

DfT, 2020. *Gear Change: A Bold Vision for Cycling and Walking*. [Online]

Available at: <https://www.gov.uk/government/publications/cycling-and-walking-plan-for-england>

[Accessed 31 5 2022].

DfT, 2021. *Bus Back Better: A National Bus Strategy for England*. [Online]

Available at: <https://www.gov.uk/government/publications/bus-back-better>

[Accessed 31 5 2022].

DfT, 2021. *Transport Decarbonisation Plan*. [Online]

Available at: <https://www.gov.uk/government/publications/transport-decarbonisation-plan>

DfT, 2022. *Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure*. [Online]

Available at: <https://www.gov.uk/government/publications/inclusive-mobility-making-transport->

accessible-for-passengers-and-pedestrians

[Accessed 14 09 2022].

DfT, 2022. *Taking Charge: The Electric Vehicle Infrastructure Strategy*. [Online]

Available at: <https://www.gov.uk/government/publications/uk-electric-vehicle-infrastructure-strategy>

[Accessed 31 5 2022].

DfT, 2022. *The second cycling and walking investment strategy (CWIS2)*. [Online]

Available at: <https://www.gov.uk/government/publications/the-second-cycling-and-walking-investment-strategy/the-second-cycling-and-walking-investment-strategy-cwis2>

[Accessed 13 September 2022].

Google, n.d.. *Google Maps Traffic Data*. [Online]

Available at: <https://www.google.co.uk/maps>

[Accessed 01 09 2022].

HM Treasury, 2021. *Build Back Better: Our Plan for Growth*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/968403/PfG_Final_Web_Accessible_Version.pdf

[Accessed 01 09 2022].

KCC & Medway Council, 2020. *Kent & Medway Energy & Low Emissions Strategy*. [Online]

Available at: https://www.kent.gov.uk/data/assets/pdf_file/0009/112401/Kent-and-Medway-Energy-and-Low-Emissions-Strategy.pdf

[Accessed 01 09 2022].

KCC, 2006. *Kent Design Guide*. [Online]

Available at: <https://www.kent.gov.uk/about-the-council/strategies-and-policies/regeneration-policies/kent-design-guide>

[Accessed 01 09 2022].

KCC, 2017. *LTP4: Delivering Growth without Gridlock 2016 - 2031*. [Online]

Available at: https://www.kent.gov.uk/data/assets/pdf_file/0011/72668/Local-transport-plan-4.pdf

[Accessed 01 09 2022].

KCC, 2019. *Climate Change Risk & Impact Assessment*. [Online]

Available at: <https://www.kent.gov.uk/environment-waste-and-planning/climate-change/kents-changing-climate/climate-change-risk-and-impact-assessment>

[Accessed 01 09 2022].

KCC, 2020. *Kent's Future, Our Priority - KCC's Five Year Plan*. [Online]

Available at:

<https://democracy.kent.gov.uk/documents/b21292/Kents%20Future%20Our%20Priority%20-%20KCCs%205%20Year%20Plan%20-%20Appendices%2019th-Mar-2020%2010.00%20County%20Council.pdf?T=9>

[Accessed 01 09 2022].

KCC, 2021. *BSIP*. [Online]

Available at: https://ehq-production-europe.s3.eu-west-1.amazonaws.com/b06e1f0ea97a61cb7fefcb8786e2e4a159c2ed6d/original/1635502542/f4dc081bd8acd2b9084b0fdbcecc395_Kent_Bus_Service_Improvement_Plan_%28BSIP%29.pdf?X-Amz-

[1635502542/f4dc081bd8acd2b9084b0fdbcecc395_Kent_Bus_Service_Improvement_Plan_%28BSIP%29.pdf?X-Amz-](https://ehq-production-europe.s3.eu-west-1.amazonaws.com/b06e1f0ea97a61cb7fefcb8786e2e4a159c2ed6d/original/1635502542/f4dc081bd8acd2b9084b0fdbcecc395_Kent_Bus_Service_Improvement_Plan_%28BSIP%29.pdf?X-Amz-)

Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIA4

[Accessed 01 09 2022].

Lovelace, R. et al., 2017. The Propensity to Cycle Tool: An open source online system for sustainable transport planning. *Journal of Transport and Land Use Planning*, 10(1).

MHCLG, 2021. *National Planning Policy Framework*. [Online]

Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf

[Accessed 01 June 2022].

Morgan, M., Anable, J. & Lucas, K., 2021. *A Place-Based Carbon Calculator for England*. [Online]

Available at: <https://www.carbon.place/>

[Accessed 25 08 2022].

National Rail, 2022. *Journey Planner*. [Online]

Available at: <https://www.nationalrail.co.uk/>

[Accessed 21 06 2022].

NOMIS, 2011. *Distance Travelled to Work*. [Online]

Available at: <https://www.nomisweb.co.uk/census/2011/qs702ew>

[Accessed 01 09 2022].

Nomis, 2011. *Method of Travel to Work*. [Online]

Available at: <https://www.nomisweb.co.uk/census/2011/qs701ew>

[Accessed 21 06 2022].

RTPI, 2021. *Net Zero Transport: The Role of Spatial Planning and Place-Based Solutions*. [Online]

Available at: <https://www.rtpi.org.uk/media/9233/rtpi-net-zero-transport-january-2021.pdf>

[Accessed 31 5 2022].

Strava Metro, 2022. *Strava Metro*. [Online]

Available at: <https://metroview.strava.com/>

[Accessed 14 09 2022].

Sweco, 2019. *TWBC Local Plan Evidence Base: Transport Assessment Report*. [Online]

Available at:

https://tunbridgewells.gov.uk/_data/assets/pdf_file/0015/301119/Local_Plan_Transport_Evidence_Base.pdf

[Accessed 01 09 2022].

TfSE, 2020. *Transport Strategy for the South East*. [Online]

Available at: <https://transportforthesoutheast.org.uk/app/uploads/2020/09/TfSE-transport-strategy.pdf>

[Accessed 13 September 2022].

TWBC, 2015. *Tunbridge Wells Borough Development Plan: Transport Strategy*. [Online]

Available at:

https://tunbridgewells.gov.uk/_data/assets/pdf_file/0018/212355/New_Transport_Strategy_2015-16_TW633_low-res.pdf

[Accessed 01 09 2022].

TWBC, 2019. *LCWIP Phase 1*. [Online]

Available at: https://tunbridgewells.gov.uk/_data/assets/pdf_file/0003/385329/01_LCWIP-Phase-1-March-2021.pdf

[Accessed 01 09 2022].

TWBC, 2019. *Tunbridge Wells Infrastructure Delivery Plan*. [Online]

Available at: https://tunbridgewells.gov.uk/_data/assets/pdf_file/0009/388026/Infrastructure-Delivery-Plan_2021.pdf

[Accessed 01 09 2022].

TWBC, 2020. *Air Quality Action Plan 2018 - 2023*. [Online]

Available at: https://tunbridgewells.gov.uk/_data/assets/pdf_file/0008/358604/Air-Quality-Action-Plan-accessible.pdf

[Accessed 01 09 2022].

TWBC, 2020. *Air Quality Annual Status Report*. [Online]

Available at: https://tunbridgewells.gov.uk/_data/assets/pdf_file/0003/358608/TWBC-ASR-2020-Final-3-updated.pdf

[Accessed 25 08 2022].

TWBC, 2020. *Electric Vehicle Charging Points for New Development*. [Online]

Available at:

https://tunbridgewells.gov.uk/_data/assets/pdf_file/0004/359815/Electric_Vehicle_Charging_Points_for_New_Development_October-2020.pdf

[Accessed 01 09 2022].

TWBC, 2021. *Local Cycling and Walking Infrastructure Plan: Phase 2*. [Online]

Available at: https://tunbridgewells.gov.uk/_data/assets/pdf_file/0007/385333/05_LCWIP-Phase-2_Final-Report.pdf

[Accessed 13 September 2022].

TWBC, 2021. *Local Plan Submission 2020 - 2038*. [Online]

Available at:

https://forms.tunbridgewells.gov.uk/_data/assets/pdf_file/0010/403588/CD_3.128_Local-Plan_Submission-version-compressed.pdf

[Accessed 01 09 2022].

TWBC, 2022. *Car Parks*. [Online]

Available at: <https://tunbridgewells.gov.uk/parking/car-parks>

[Accessed 01 09 2022].

WSP, 2018. *Tunbridge Wells P&R Feasibility Study*. [Online]

Available at:

https://tunbridgewells.gov.uk/_data/assets/pdf_file/0009/384777/7300F8E3E5A10D60E0531401A8C0C6BC_Tunbridge_Wells_Park_and_Ride_Feasibility_Study_Final_Report_June_2018.pdf

[Accessed 01 09 2022].

Zap Map, 2022. *Map of Charging Points in the UK*. [Online]

Available at: <https://www.zap-map.com/live/>

[Accessed 21 06 2022].