

Mobility Study

Stage 1 Evidence Review Report

Bath and North East Somerset Council

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Quality information

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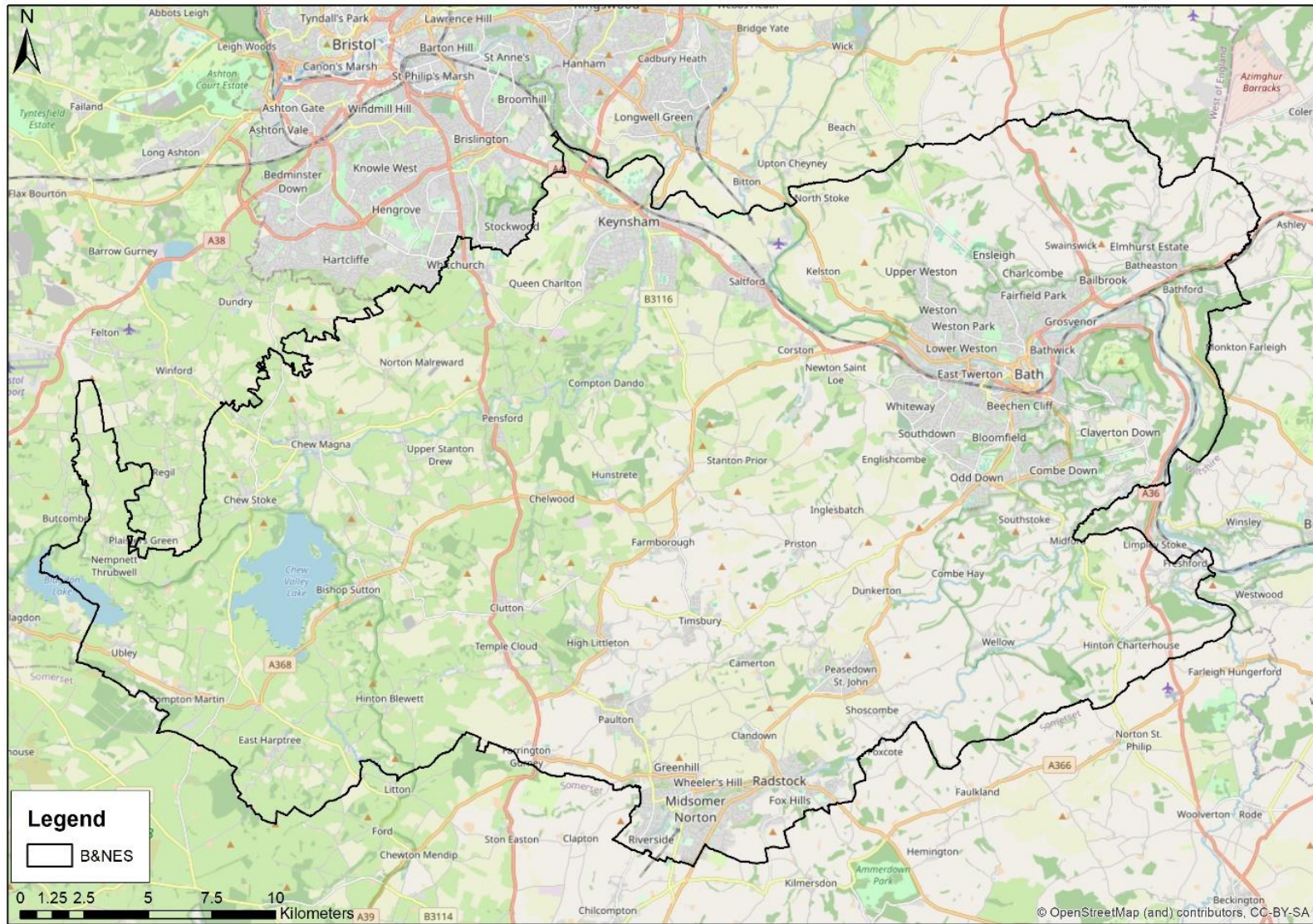
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1. Introduction

1.1 Background

- 1.1.1 AECOM has been commissioned by Bath and North East Somerset (B&NES) Council to undertake a Mobility Study ('the Study') as part of the evidence base for the New Local Plan (NLP) which will cover the period between 2022-2042. The New Local Plan allocates sites for development, with an associated robust evidence base and mitigation strategy to demonstrate sustainable delivery.
- 1.1.2 The purpose of this Study is to define the transport characteristics, opportunities and challenges that exist within the B&NES district. The intention is that it reviews the existing transport evidence available, identifying where there are gaps in the existing transport provision which need to be addressed to accommodate the forecast growth within the NLP.
- 1.1.3 This Study complements the adopted Journey to Net Zero strategy for Bath and the emerging Journey to Net Zero strategies that have been undertaken in the identified four broad locations for growth which are:
- Hicks Gate area;
 - Keynsham and Saltford;
 - The Somer Valley; and
 - Whitchurch Village.
- 1.1.4 However, the focus of the Study is to examine the existing transport network and transport opportunities at a strategic level for the entire B&NES district.
- 1.1.5 This Study is the Stage 1 Report which provides a review of the evidence available and sets out high level potential transport opportunities. It is intended that a Stage 2 Report will be prepared to provide further detail on the opportunities, supported by outputs from the West of England Regional Transport Model (WERTM) once these are available during the Regulation 19 stage of the Local Plan process.
- 1.1.6 The study area covers the whole of the B&NES district. This is comprised of the Bath urban area located in the north east of the district, the Keynsham and Saltford areas in the north of the district, Midsomer Norton and Radstock in the Somer Valley to the south and numerous villages and smaller settlements in surrounding rural areas. This is illustrated in Figure 1-1 below.

Figure 1-1: Bath and North East Somerset Boundary



1.2 Report Structure

1.2.1 Following this section, this report includes the following sections:

- **Section 2** provides a detailed review of the national, regional and local policy that provides a framework for this transport strategy as well as any relevant studies;
- **Section 3** provides a description of the existing transport networks in the area;
- **Section 4** provides an overview of the travel patterns identified from census data;
- **Section 5** details the existing and proposed transport schemes in the area;
- **Section 6** illustrates where residents within the District are travelling to/from; and
- **Section 7** provides a summary and outlines next steps.

2. Policy Review

2.1 National Policy

National Planning Policy Framework (NPPF) (December 2023)

2.1.1 The revised National Planning Policy Framework (NPPF) was published on 19th December 2023, replacing the previous version published in March 2012, revised in July 2018 and updated in February 2019, July 2021 and September 2023. The NPPF sets out the Government's planning policies for England and how these are expected to be applied at a local level. It provides a framework within which locally prepared plans for housing and other development can be produced. The NPPF highlights the importance that transport, and transport related policies have in facilitating sustainable development and promoting wider health and sustainability objectives. 'Section 9 – Promoting sustainable transport' outlines the key transport policy considerations. It states at paragraph 108 that transport issues should be considered at the earliest opportunities when planning development so that:

- *“The potential impacts of development on transport networks can be addressed;*
- *Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- *Opportunities to promote walking, cycling and public transport use are identified and pursued;*
- *The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- *Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.”*

2.1.2 In paragraph 110, the NPPF outlines the requirements for transport planning policies. Planning policies should:

- *“Support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;*
- *Be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;*
- *Identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;*
- *Provide for attractive and well-designed walking and cycling networks with supporting facilities such as secure cycle parking (drawing on Local Cycling and Walking Infrastructure Plans); and*
- *Provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements”*

2.1.3 In Paragraphs 114-116 the NPPF outlines that for sites that may be allocated for development it should be ensured that:

- appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
 - safe and suitable access to the site can be achieved for all users;
 - the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
 - any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.
- 2.1.4 It is stated at paragraph 115 that *'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe'*.
- 2.1.5 Applications for development should:
- give priority to pedestrian and cycle movements and facilitate access to high quality public transport;
 - address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
 - create places that are safe, secure and attractive;
 - allow for the efficient delivery of goods, and access by service and emergency vehicles; and
 - be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

The Plan for Drivers (October 2023)

- 2.1.6 The Plan for Drivers sets out the Government's action plan of measures to support car drivers. It addresses a number of issues which it identifies are concerns for drivers. However, it is stated in the foreword that *"Walking, cycling and public transport are necessary in a multi-modal transport system and we support their continued growth, but they are not the right choice for everyone's journey."*
- 2.1.7 The measures in the plan are categorised under the following headings:
- 1. Smoother journeys
 - 2. Stopping unfair enforcement
 - 3. Easier parking
 - 4. Cracking down on inconsiderate driving
 - 5. Helping the transition to zero emission driving
- 2.1.8 The measures for which new funding is being made immediately available for are:
- £30m for Traffic Signals Obsolete Grant (TSOG) - Replacing obsolete equipment
 - £20m for Green Light Fund (GLF) – Optimising traffic signal timings / UTC / MOVA operation
 - £20m for Intelligent Traffic Management Fund (ITMF) – Deployment of advance traffic signal technologies

DfT Circular 01/2022 (December 2022)

- 2.1.9 The Circular 01/2022 states that new development should be facilitating a reduction in the need to travel by private motor vehicle and should be located in areas of high accessibility by sustainable transport modes. Options to deliver modal shift and encouraging travel by

sustainable transport should be explored before considering new connections to the Strategic Road Network (SRN).

DfT Active Travel: Walking and Cycling Social Prescribing Pilot (August 2022)

- 2.1.10 Social prescriptions for walking, wheeling and cycling will be offered by GPs as part of a new trial to improve mental and physical health. Pilot projects include adult cycle training, free bike loans and walking groups. The pilots will be delivered alongside improved infrastructure. Bath and North East Somerset is one of 11 local authority areas that will trial social prescriptions. The pilots were a commitment in the governments Gear Change Plan (2020) and will be delivered between 2022 and 2025 with on-going monitoring and evaluation.

The Second Cycling and Walking Investment Strategy (July 2022; March 2023)

- 2.1.11 This second cycling and walking investment strategy (CWIS2) reaffirms the government's commitment to making walking, wheeling and cycling the natural choices for millions more journeys.
- 2.1.12 The objectives, aims and target in CWIS1, alongside the vision set out in Gear change (2020), have informed the revised set of four objectives to 2025 to:
- increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018 to 2019 to 46% in 2025;
 - increase walking activity, where walking activity is measured as the total number of walking stages per person per year, to 365 stages per person per year in 2025;
 - double cycling, where cycling activity is measured as the estimated total number of cycling stages made each year, from 0.8 billion stages in 2013 to 1.6 billion stages in 2025; and
 - increase the percentage of children aged 5 to 10 who usually walk to school from 49% in 2014 to 55% in 2025.

Future of Freight: A Long-Term Plan (June 2022)

- 2.1.13 The plan sets out the governments long-term vision for the UK freight sector, identifying the main challenges, objectives and actions. The vision is for 'a freight and logistics sector that is cost-efficient, reliable, resilient, environmentally sustainable and valued by society'. One of the goals is to 'have a planning system which fully recognises the needs of the freight and logistics sector now and in the future'. The actions to support this goal include collaborating to support a programme of engagement with local planning authorities and engaging with a consultation on updated guidance for Local Transport Plans.

City Region Sustainable Transport Settlements: guidance for mayoral combined authorities (August 2021)

- 2.1.14 The West of England around Bristol and Bath is one of eight large metropolitan regions included within the City Region Sustainable Transport Settlement (CRSTS) which has the aim to invest in local transport networks in order to drive significant change.
- 2.1.15 The settlements could be used to "develop mass transit networks and sustainable transport options, open up new areas of the region for employment, leisure and housing, and create real innovation in transport to solve problems".
- 2.1.16 The CRSTS sits alongside other local funding streams, such as the commitment for buses and cycling and the £4.8 billion Levelling Up Fund.

Decarbonising Transport (July 2021)

- 2.1.17 The UK aims to have net zero emissions by 2050. The Decarbonising Transport plan sets out the path to net zero transport in the UK. Commitments set out include:
- Increasing walking and cycling – aim that half of all journeys in towns and cities will be cycled or walked by 2030
 - Zero emission buses and coaches – deliver the National Bus Strategy’s vision of a transformed bus industry and a green bus revolution, supporting the delivery of 4,000 new zero emission buses
 - Decarbonising the railways
 - Zero emission fleet of cars, vans, motorcycles and scooters
 - Delivering decarbonisation through places – making quantifiable carbon reductions a fundamental part of local transport planning and funding, embedding transport decarbonisation principles in spatial planning and across transport policymaking

Build Back Better (July 2021)

- 2.1.18 The Build Back Better publication sets out the governments ‘*plans to support growth through significant investment in infrastructure, skills and innovation, and to pursue growth that levels up every part of the UK, enables the transition to net zero, and supports our vision for Global Britain*’. In pursuing economic growth the document states that one of the most important goals is to level up the country, tackling geographic disparities and supporting struggling towns to regenerate.

Gear Change: A Bold Vision for Cycling and Walking (July 2020)

- 2.1.19 The document sets out the governments vision for walking and cycling in England, focusing on:
- better streets for cycling and people;
 - cycling and walking at the heart of decision-making;
 - empowering and encouraging local authorities; and
 - enabling people to cycle and protecting them when they do.
- 2.1.20 Increasing walking and cycling can ‘help tackle some of the most challenging issues we face as a society – improving air quality, combatting climate change, improving health and wellbeing, addressing inequalities and tackling congestion on our roads’. Delivering better connected, sustainable communities will help deliver clean growth, support local businesses and contribute to levelling up the nation. The vision is that ‘*cycling and walking will be the natural first choice for many journeys with half of all journeys in towns and cities being cycled or walked by 2030*’.

Gear Change: One Year On (July 2021)

- 2.1.21 This document reviews the progress made towards achieving the goals of the Gear Change walking and cycling plan.
- 2.1.22 A year after the Gear Change report was published the following projects have been delivered:
- At least 150 Low Traffic Neighbourhoods;
 - Over 100 miles of new segregated cycle lanes, including 60 miles in London; and
 - Hundreds of school streets.
- 2.1.23 The government commits to the following:

- Increase funding by 30% from the amount announced at the Spending Review;
- Use the funding to deliver more cycle lanes, low-traffic neighbourhoods and school streets;
- Discourage the weakening or removal of schemes;
- Reduce funding to councils which do not take active travel seriously;
- Invite bids for Mini-Holland schemes outside of London;
- Invite bids for Active Travel social prescribing pilots;
- Improve the National Cycle Network;
- Consider using historic railways for walking and cycle routes;
- Launch a national e-scooter pilot programme and
- Will act on pavement parking.

2.1.24 Traffic data has been collected by councils for Low Traffic Neighbourhood schemes, including pre-pandemic and early post-pandemic schemes. Changes in traffic flows in and around the LTN schemes has also been compared with changes in wider traffic volumes. The data so far indicates that LTN experience reductions in vehicular traffic and significant increases in walking and cycling. In addition, the traffic indicates that traffic sometimes increases in the area around the LTN at the beginning however, once travel patterns adjusted, councils reported reduced traffic on most of the roads around the LTNs.

Bus Back Better (March 2021)

2.1.25 Bus Back Better presents a national bus strategy for England, setting out the vision and opportunity to deliver better bus services for passengers through reform of how services are planned and delivered.

2.1.26 *'Buses can be key to levelling-up; users are disproportionately from less advantaged social groups and places. Improved services will strengthen communities, sustain town centres and connect disabled and isolated people'*. Buses are seen as vital in ensuring the economy meets Net Zero carbon emissions, with substantial shift away from the car required to meet clean air and climate change targets. The report sets out long-term funding which will be invested in new and increased services, bus priority schemes and accelerating the delivery of zero emission buses.

Ten Point Plan for a Green Industrial Revolution (November 2020)

2.1.27 The document sets out the governments approach to *'build back better, support green jobs, and accelerate our path to net zero'*. Points 4 and 5 of the plan focus on accelerating the shift to zero emission vehicles and green public transport, cycling and walking.

2.1.28 The document states that the share of journeys by public transport, cycling and walking must be increased. Investment in rail and bus services will include funding thousands of zero emission buses and providing more cycle lanes in towns and cities. In smaller places, bus improvements will be made, including more rural on-demand services. Segregated cycle lanes and more low-traffic neighbourhoods will be created.

Local Transport Note 1/20 Cycle Infrastructure Design (July 2020)

2.1.29 The CWIS sets an ambition to make cycling and walking the natural choice for short journeys. The Local Transport Note (LTN) provides guidance to local authorities on delivering high quality cycle infrastructure and therefore supports the CWIS in delivering this ambition.

Future Mobility Grand Challenge (July 2018)

- 2.1.30 The Grand Challenges set out within the Industrial Strategy aim to put the UK at the forefront of the industries of the future. One of the Grand Challenges is the 'future of mobility'.
- 2.1.31 The UK aims to become a world leader in shaping the future of mobility. The UK's *'road and rail network could dramatically reduce carbon emissions and other pollutants, congestion could be reduced through higher-density use of road space enabled by automated vehicles'*.

Industrial Strategy: Building a Britain Fit for the Future (November 2017)

- 2.1.32 The Industrial Strategy presents the aim to create an economy that boosts productivity and earning power throughout the UK. Key policies within the Industrial Strategy include:
- Agree Local Industrial Strategies, building on local strengths
 - Transforming Cities Fund for intra-city transport
 - Support electric vehicles through charging infrastructure investment
 - Boost digital infrastructure

Cycling and Walking Investment Strategy (April 2017)

- 2.1.33 The governments ambition for walking and cycling as set out in the Cycling and Walking Investment Strategy (CWIS) is that cycling and walking should be the natural choice for shorter journeys, or as part of a longer journey. The ambition is that by 2040 they will deliver:
- Better Safety – safe streets for walkers and cyclists, better connected communities, safer traffic speeds and cycle training opportunities for all children
 - Better Mobility – more high-quality cycle facilities, improved safety on rural roads for walking and cycling, more network of routes to public transport hubs and town centres and better links to schools and workplaces
 - Better Streets – places designed for people of all ages and abilities, improved public realm, better planning for walking and cycling, more community activities and a wider green network of paths.

Levelling Up Fund

- 2.1.34 The Levelling Up fund provides funding to projects across the country and looks to spread opportunity to historically overlooked places. £672 million will be provided, some of which will be allocated to schemes which will develop better transport links.

2.2 Regional Policy

West of England Bus Service Improvement Plan (December 2022)

- 2.2.1 The Bus Service Improvement Plan (BSIP) sets out WECA's targets to reduce bus journey times, ensure reliability of services, return to pre-pandemic patronage by 2025, increase customer satisfaction and aim for all buses to be zero emission by 2030.
- 2.2.2 Delivery plans have been developed for ten areas where there are plans to make significant changes to bus services, these are as follows:
- **Intensive services** – provide turn-up-and-go services on core urban routes, supported by good frequencies on key inter-urban corridors and in smaller rural areas.

- **Bus priority** – enabling bus priority measures across key routes to deliver journey times which are reliable and comparable or better than car travel
- **Fares** – simpler fares with better value for money
- **Integrated ticketing** – a single consistent offer to customers across the region
- **Integrated services** – good access to services across the region, integrated with key passenger destinations and other modes. Provision of transport hubs is a key aspect of this.
- **Single integrated system** – local bus services form part of a single, integrated public transport network
- **Modern buses** – transitioning the bus fleet to zero emission buses
- **Passenger voice** – empowering bus passengers and giving them a greater say in services they use
- **Non-intensive services** – provision of demand-responsive services to low-density areas. Work is taking place on trialling Demand Responsive Transport (DRT) within the region.
- **Longer-term** – increase in the use of sustainable transport modes, including bus travel, into the future.

City Region Sustainable Transport Settlements: guidance for mayoral combined authorities (August 2021)

2.2.3 The West of England around Bristol and Bath is one of eight large metropolitan regions included within the City Region Sustainable Transport Settlement (CRSTS) which has the aim to invest in local transport networks in order to drive significant change.

2.2.4 The settlements could be used to “*develop mass transit networks and sustainable transport options, open up new areas of the region for employment, leisure and housing, and create real innovation in transport to solve problems*”. The CRSTS sits alongside other local funding streams, such as the commitment for buses and cycling and the £4.8 billion Levelling Up Fund.

West of England Local Cycling and Walking Infrastructure Plan (LCWIP) 2020-2036 (January 2021)

2.2.5 The LCWIP is a plan set out by WECA which proposes £411m of investment by 2036 for use towards transforming active travel in the region. The plan supports the delivery of the following interventions which are set out in the JLTP4:

- to provide an attractive, safe and usable walking and cycling network;
- to support those without a private car to access the services they require;
- to improve the quality of streets and public spaces, and to provide clear wayfinding and signage;
- to work with residents and communities to identify barriers to accessibility including crossings, and speed reduction;
- to consider the needs of all road users in the design of transport and highway schemes, particularly vulnerable road users;
- to improve the quality of streets and public realm;
- to integrate walking, cycling and public transport into new developments;
- to provide clear wayfinding and signage;
- to improve and maintain Public Rights of Way;

- to work with residents and communities to identify barriers to accessibility;
 - to support the provision of safe crossings and speed reduction in appropriate locations; and
 - to improve actual and perceived personal security
- 2.2.6 The plan presents a variety of plans showing proposed improvements to walking and cycling routes throughout the West of England region. The proposed LCWIP routes in Bath and North East Somerset are at the following locations which are all growth areas in the District:
- Bath;
 - Keynsham; and
 - Somer Valley;

West of England Joint Green Infrastructure Strategy 2020-2030 (May 2020)

- 2.2.7 The Joint Green Infrastructure Strategy (JGIS) provides an evidence base for Local Plan development and provides tools to enable a consistent approach to green infrastructure as well as identifying opportunities to enhance and improve connectivity of green infrastructure across the authorities. The outcomes sought through the strategy include improved and better-connected ecological networks, greater resilience to climate change, creating and maintaining sustainable places and building a resilient economy.

West of England Joint Local Transport Plan 4 2020-2036 (March 2020)

- 2.2.8 The JLTP4 is led by the West of England Combined Authority (WECA) and sets out how a well-connected, sustainable transport network which makes walking and cycling the natural way to travel is to be achieved across the region.
- 2.2.9 The JLTP4 aims to ensure that transport is carbon neutral by 2030 through a substantial shift towards more sustainable forms of transport and decarbonisation of vehicles on the road. The aim is that by 2036 there will be affordable, high quality and frequent public transport enabling people to move around the region and that public spaces will be greener, cleaner and more people focused.
- 2.2.10 The transport plan sets out the transport challenges faced across the region, these include amongst others:
- 2 out of 3 people commute by car compared to 1 out of 11 who commute by public transport;
 - Perception that there are limited travel options;
 - Lack of spare highway capacity;
 - High levels of inequality and different accessibility needs;
 - Transport contribution to carbon emissions and climate change;
 - £6bn shortfall in transport funding; and
 - An ageing population and population growth.
- 2.2.11 The focus for improving connectivity in the West of England is on:
- Developing rapid and mass transit, supporting and enhancing existing public transport;
 - Technology to manage the network and provide future travel opportunities;
 - Active travel, including improving cycling and walking networks;
 - Travel planning and increasing knowledge about sustainable modes;

- Access to services;
- Improving air quality;
- Removal of physical barriers such as severance by major roads; and
- Master planning, local planning and public realm.

2.3 Local Policy

B&NES Corporate Strategy 2023-2027 (July 2023)

2.3.1 The Corporate Strategy was adopted in July 2023 and sets out the ambitions and priorities for the Council in the period up to 2027.

2.3.2 The priorities for the Council are:

- The right homes in the right places;
- More travel choices;
- Clean, safe and vibrant neighbourhoods;
- Support for vulnerable adults and children;
- Delivering for children and young people;
- Healthy lives and places;
- Good jobs;
- Skill to thrive; and
- Cultural life.

2.3.3 The three principles of the strategy are the following:

- Preparing for the future;
- Delivering for local residents; and
- Focusing on prevention.

2.3.4 This strategy also links with the Council's aims to achieve net zero and nature positive in the region by 2030.

Local Plan Partial Update (LPPU) (January 2023)

2.3.5 The LPPU formed an update to the Core Strategy and Placemaking Plan in order to reflect the declaration of climate and ecological emergencies and the commitment to secure net zero by 2030. The LPPU was submitted for examination in 2021 and was adopted in January 2023.

Core Strategy and Placemaking Plan incorporating the Local Plan Partial Update (January 2023)

2.3.6 The Core Strategy was adopted in 2014 and set out the spatial vision and strategy for the district, including broad locations for delivering new development. The Placemaking Plan, adopted in 2017, identified the site allocations, detailed development management policies and local designations for the different places within the District.

2.3.7 The Core Strategy and Placemaking Plan incorporating the Local Plan Partial Update was issued in January 2023. Seven strategic objectives are outlined within the 'Core Strategy and Placemaking Plan incorporating the Local Plan Partial Update':

- Pursue a low carbon and sustainable future in a changing climate

- Protect and enhance the District's natural, built and cultural assets and provide green infrastructure
 - Encourage economic development, diversification and prosperity
 - Invest in our city, town and local centres
 - Meet housing needs
 - Plan for development that promotes health and wellbeing
 - Deliver well connected places accessible by sustainable means of transport
- 2.3.8 New housing, jobs and community facilities will be focused in Bath, Keynsham and the Somer Valley, making provision for a net increase of 10,300 jobs and 13,000 homes.
- 2.3.9 Policy ST1 Promoting Sustainable Travel and Healthy Streets states that planning permission will be granted as long as the following principles are addressed:
- *Development is located where there are, or will be at the time of development, a range of realistic travel opportunities to provide genuine alternatives to private car usage and where opportunities to reduce travel distances exist;*
 - *The design of the development reduces car dependency and actively supports travel by sustainable modes, including providing attractive sustainable travel connections;*
 - *The growth and the overall level of traffic and congestion are reduced by measures which encourage movement by public transport, bicycle and on foot, including traffic management;*
 - *Mitigation for traffic impacts maximises opportunities to achieve mode shift towards sustainable transport modes before proposing traffic capacity enhancements;*
 - *Transport proposals align with relevant area-specific transport strategies, plans, policy documents, local guidance and the current adopted Joint Local Transport Plan;*
 - *Proposals provide and enhance facilities for pedestrians, cyclists, including disabled people, that is fit for purpose and have regard to the B&NES Transport and Development SPD;*
 - *Proposals safeguard, enhance and extend the network of public rights of way and cycle routes;*
 - *Opportunities for low-carbon, last mile transport of goods and deliveries have been taken up which are appropriate to the location and scale of the development;*
 - *The development reduces the adverse impact of all forms of travel on the natural and built environment;*
 - *Development does not prejudice the efficient functioning and acceptable development of the railway network;*
 - *The use of car clubs and Ultra-Low Emissions Vehicles (ULEV) are promoted;*
 - *Access to high quality public transport facilities is achieved by improving existing and providing new public transport facilities which would increase the proportion of journeys made by public transport; and*
 - *Proposals support and promote measures which reduce the levels of traffic pollution in the interests of improving health and quality of life and reducing harmful impacts on the built and natural environment.*
- 2.3.10 Policy ST5 Traffic Management Proposals states that traffic management proposals will be expected to:
- *Reduce through traffic and other unnecessary motorised vehicle journeys;*
 - *secure improvements for pedestrians, cyclists and disabled people;*
 - *facilitate the improvement of public transport integration; and*

- *ensure the needs of all road users are taken into account.*
- 2.3.11 Policy ST6 Transport Interchange states that the development of new transport interchange sites, including Park and Ride will be permitted provided:
- *Opportunities to enhance the transport benefits of proposed schemes to incorporate wider interchange functionality have been fully assessed and incorporated into proposals;*
 - *Proposed site(s) have been thoroughly evaluated with a robust evidence base demonstrating that the most suitable and sustainable site has been selected;*
 - *Transport effects of the proposed development have been comprehensively and robustly identified through a Transport Assessment in line with current national guidance.*
- 2.3.12 Policy ST7 Transport Requirements for Managing Development outlines that development will be permitted providing the following provisions are met:
- Users of the development benefit from genuine choice in their mode of travel through opportunities to travel by sustainable modes;
 - Highway safety is not prejudiced;
 - Walking and cycling assessment and facilities are provided having regard to the Transport and Development SPD, including safe, convenient and inclusive access to and within the site for pedestrians and cyclists;
 - Vehicular access is both safe and suitable;
 - No introduction to traffic of excessive volume, size or weight onto an unsuitable road system or into an environmentally sensitive area;
 - Provision is made for any improvements to the transport system required to render the development proposal acceptable. Improvement requirements will maximise opportunities to travel by sustainable modes;
 - Necessary mitigation measures can be delivered without unacceptable harm to the historic or natural environment;
 - In the case of new development proposals, facilities for charging plug-in and other ultra-low emission vehicles will be sought having regard to the Transport and Development SPD;
 - Planning applications for developments that generate significant levels of movement should be accompanied by a transport assessment or transport statement in accordance with National Planning Policy Framework and Planning Practice Guidance and travel plans will be expected to be provided having regard to the Transport and Development SPD; and
 - Car and cycle parking provision and design must contribute to the aims of the Climate and Ecological Emergency, support creating better and healthier places, and be appropriate to the context of the development.

Transport and Development Supplementary Planning Document (January 2023)

- 2.3.13 The Transport and Developments SPD gives additional guidance on how B&NES expects proposals for new development to plan for the transport needs of users. The SPD establishes objectives, sets out design principles and provides tools and guidance to support developers in making proposals which meet the expectations for promoting active travel, for providing parking and infrastructure for Ultra Low Emissions Vehicles and developing Travel Plans.

Bath with NES 2030: One Shared Vision (June 2021)

- 2.3.14 Our Shared Vision is part of B&NES Council's response to the Covid pandemic to address the impacts experienced across the community and to ensure that recovery achieves a stronger, more resilient, greener and net zero place. The document sets out recommendations for the governance and structure to develop the vision and short term opportunities for implementation.

B&NES Climate and Ecological Emergency Action Plan (January 2021)

- 2.3.15 Following from B&NES declaring climate and ecological emergencies and the first phase of research subsequently undertaken within the district an action plan has been produced. The research indicated that the main sources of greenhouse gas emissions across the district are energy use in buildings (66%) and transport (29%) and a pathway was modelled to cut emissions from these areas by 2030. Three immediate priorities for action were identified, including a major shift to mass transport, walking and cycling to reduce transport emissions.

- 2.3.16 Within this, proposed actions include:

- Expand the public electric vehicle charging network across B&NES with funding from the Go Ultra Low West Project
- Continue to expand the walking and cycling networks across the district and promote active travel
- Commence the delivery of Low Traffic Neighbourhoods to prioritise pedestrians and cyclists in residential areas and carry out a review of residents' parking schemes
- Working with Bristol, South Gloucester and North Somerset WECA Mass Transit Project to improve mass transit between Bath and Bristol

Journey Net Zero: Transport Delivery Action Plan for Bath Phase 1: Current and Future Report (April 2020)

- 2.3.17 The report identifies the short, medium and long term schemes and policies that should be implemented in Bath to achieve the Council's goals of being carbon neutral by 2030. The plan sets out the transport challenges in the district and the existing situation of transport. Projects include Bath's Clean Air Plan, Rail electrification through Bath, LCWIP, Bath Cycle Network and City Centre Package, West of England Mass Transit and Bath Mass Transit.

Journey to Net Zero: Reducing the Environmental Impact of Transport in Bath

- 2.3.18 The report sets out a plan to tackle the challenges of climate change, improving air quality, improving health and wellbeing and tackling congestion. The plan sets out the changes needed in the transport system to achieve Net Zero. The plan primarily focuses on Bath but also recognises the importance of travel corridors between the city and the wider district. Current projects include the A367 (Bath to Somer Valley) and A37 (Bristol to Somer Valley) corridor studies and future projects include the 'inter-urban sustainable transport links' which would build on the A367/A37 studies by improving connectivity between the main communities e.g. Keynsham to Midsomer Norton, Chew Valley to Somer Valley to Peasedown St John.

2019 Declaration of Climate Emergency & 2020 Declaration of Ecological Emergency

- 2.3.19 In March 2019 B&NES Council declared a climate emergency, resolving to provide leadership to enable the B&NES area to be carbon neutral by 2030. The ecological emergency was declared in 2020 and means B&NES Council has committed to protect and enhance B&NES natural environment and wildlife biodiversity.

3. Existing Transport Network

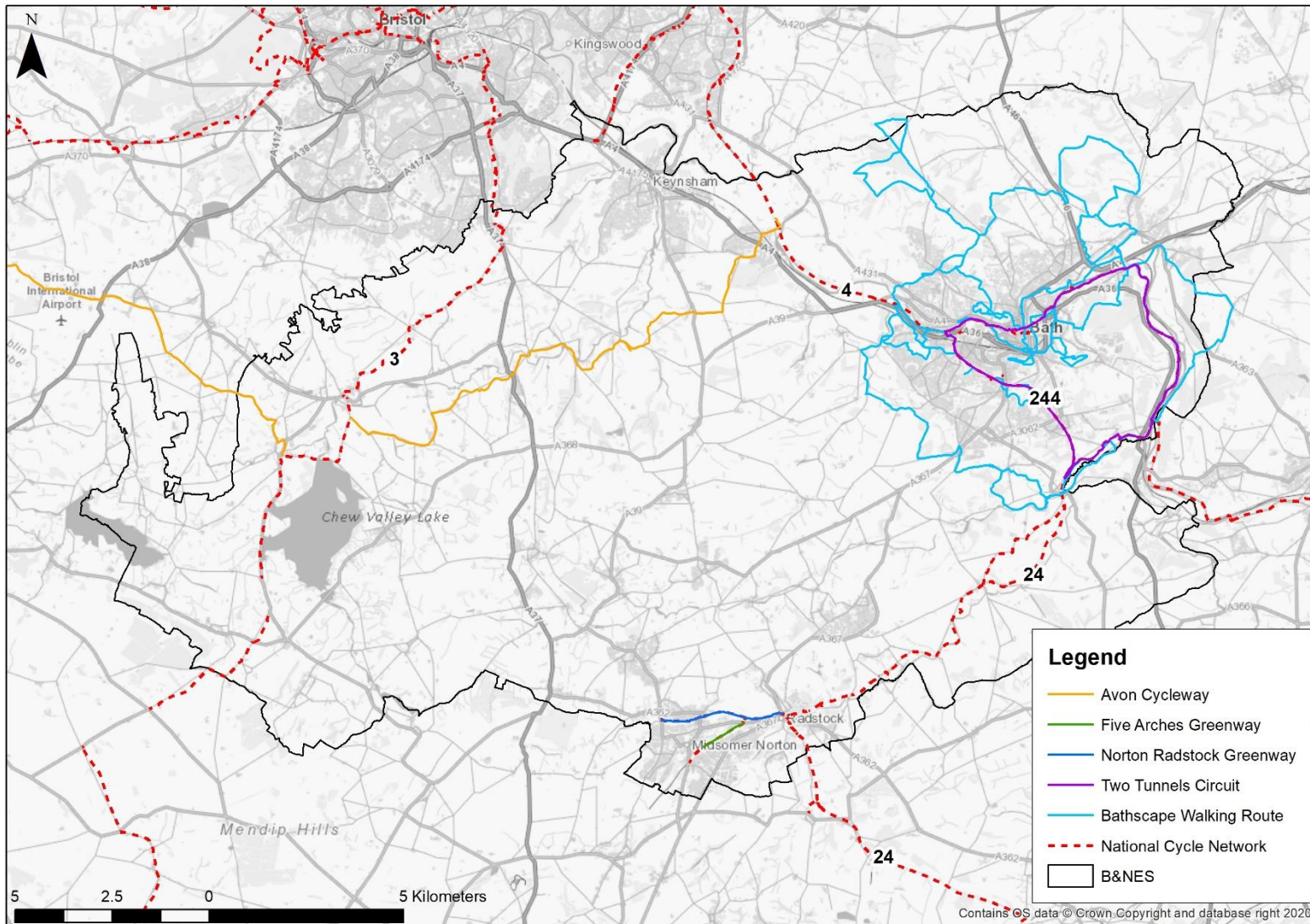
3.1 Introduction

- 3.1.1 This section of the report assesses the existing transport conditions in the B&NES District. This includes an examination of the local highway, active and public transport infrastructure and conditions in the vicinity of the study area. This section also reviews Personal Injury Collision (PIC) data to assess the existing highway safety record.

3.2 Walking, Cycling and Wheeling

- 3.2.1 Walking and cycling infrastructure is varied across the B&NES District. In urban areas, there are well-established networks for active travel, for example through the provision of footways adjoining carriageways, shared walking / cycling routes as well as some dedicated cycleways. The main considerations for these networks include the provision of continuous and coherent routes, and ongoing challenges to maintenance amidst funding shortages. The pedestrian and wheeling routes which are adjacent to carriageways and the on-carriageway cycle lanes are less attractive for pedestrians and cyclists respectively as compared to segregated facilities dedicated to a single mode.
- 3.2.2 In rural areas, provision for active modes is less established, less utilised and often limited to within rural settlement boundaries, although some strategic cycling routes connecting settlements are available. Walking, cycling and wheeling is mostly associated with leisure uses and infrastructure is often not designed to be accessible for all users including wheeling. There are a number of flagship strategic active mode routes within the District, including The River Avon / Avon and Kennet Canal shared-use towpath (part of National Cycle Network (NCN) Route 4 through Bath City Centre, the Bristol to Bath Railway Path (part of NCN Route 4), and the Two Tunnels Circuit which is illustrated in **Figure 3-1**.
- 3.2.3 There are a series of leisure walking routes within the Bath urban area and the World Heritage setting around Bath which are promoted by Bathscape. These are shown in Figure 3-1.

Figure 3-1: Active Mode Routes



- 3.2.4 Figure 3-1 shows that NCN Route 24 runs from Bath through Radstock to Frome and on towards Eastleigh (Hampshire). Route 24 through Radstock is part of the Colliers Way, which connects Frome with the Dundas Aqueduct on the outskirts of Bath via a mixture of on-road and traffic free cycle paths.
- 3.2.5 The NCN Route 24 connects with the NCN Route 244 (The Two Tunnels Greenway) which connects Midford with Bath.
- 3.2.6 The Norton - Radstock Greenway is a traffic-free cycle route approximately 3.2km long which runs from Northmead Road in Midsomer Norton to Somervale Road in Radstock where it connects to the NCN Route 24.
- 3.2.7 There is access from the Norton – Radstock Greenway to the Five Arches Greenway at Radstock Road. The Five Arches Greenway runs from Radstock Road south along the disused railway line which separates Midsomer Norton and Westfield, ending at Silver Street. Both of the Greenways can be used to access the NCN Route 24.
- 3.2.8 NCN Route 244 is a traffic-free cycle path between Bath and Midford that connects to NCN Route 4 and Route 24 and is part of the Bath Two Tunnels Circuit.
- 3.2.9 NCN Route 3 provides a cycle route between Lands End in Cornwall to Bristol. NCN Route 3 passes through the study area along Norton Road over the A37 and along Sleep Lane to connect to the Whitchurch Railway path. From Whitchurch Village the NCN Route 3 can be accessed via Staunton Lane, Sleep Lane and Norton Lane and there are several connections to the Whitchurch Railway path from residential roads.
- 3.2.10 NCN Route 4 is a long distance cycle route from London to Fishguard in west Wales, which includes the Bristol-Bath Railway Path.
- 3.2.11 The Avon Cycleway is an 85-mile circular route around the city of Bristol. The cycleway connects to NCN Route 3 and 4.
- 3.2.12 In addition, within the B&NES District there is a large network of Public Rights of Way (PRoW) which are shown in **Figure 3-2** and **Figure 3-3**.

Figure 3-2: PRoW Network - Footpaths

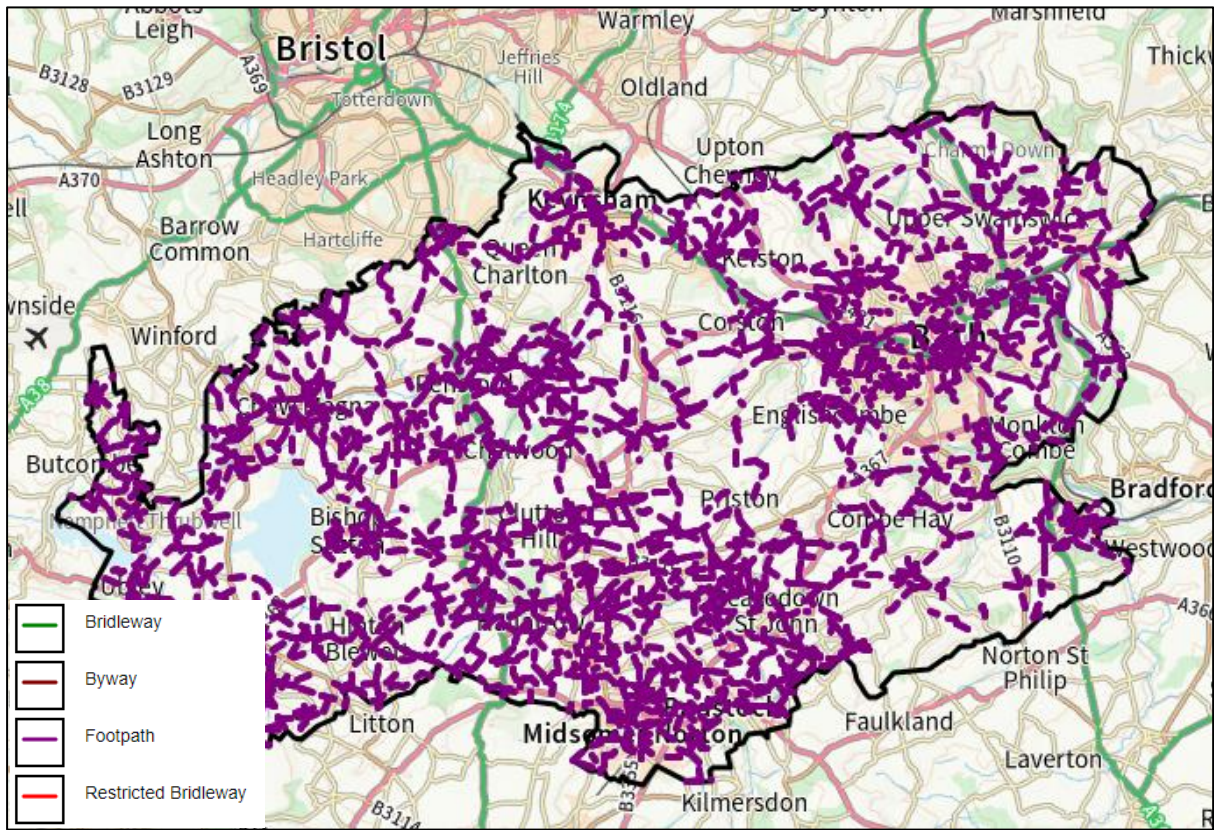
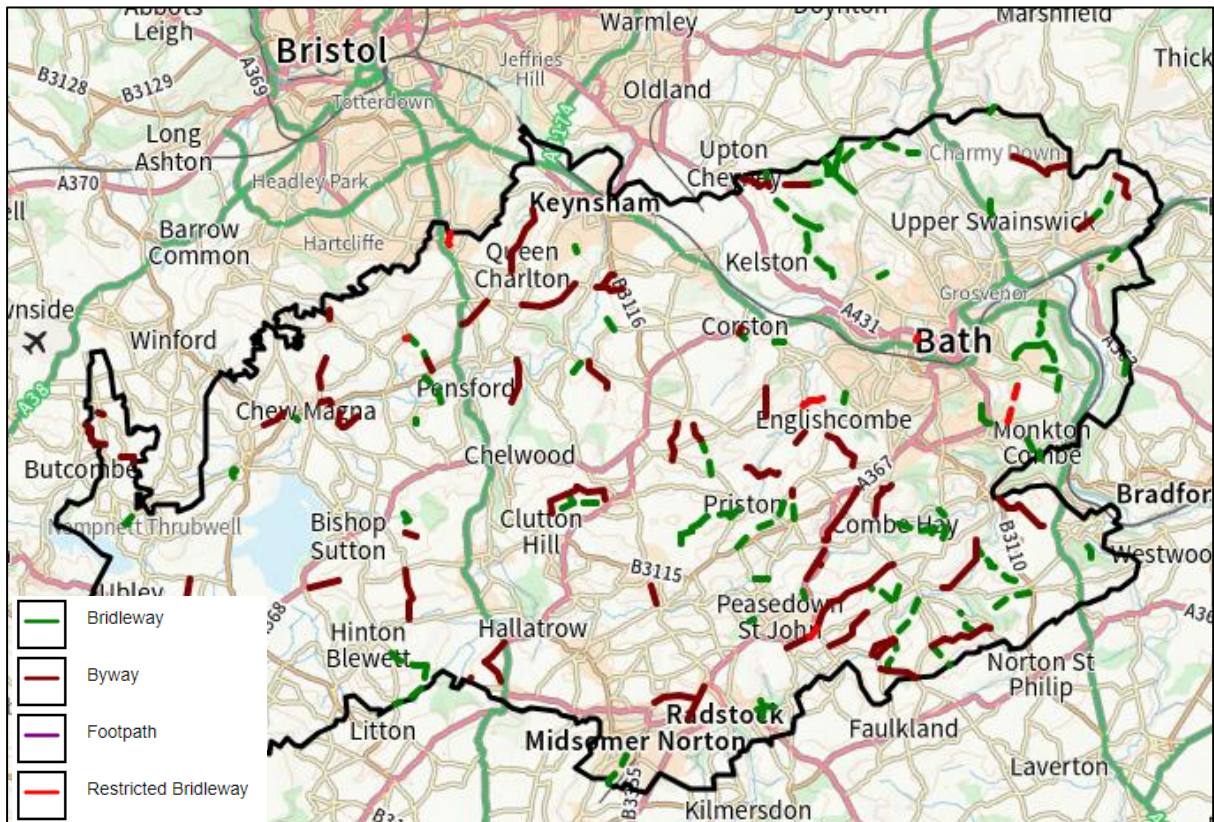


Figure 3-3: PRoW Network – Bridleways, Byways and Restricted Bridleways



Source: Bath and North East Somerset Council website

- 3.2.13 Figure 3-2 and Figure 3-3 show that there is an extensive PRow network across the B&NES district, encompassing both rural and urban areas.
- 3.2.14 The local walking, cycling and wheeling networks in the four broad locations for growth vary by location, as discussed in the following paragraphs.
- 3.2.15 The Hicks Gate area is bisected by the A4 Bath Road, which creates severance for pedestrians. Large distances between safe, formal crossing points are likely to increase the amount of informal crossing taking place along the corridor, which can present a risk to pedestrian safety. The majority of the A4 routed through the Hicks Gate area has shared pedestrian cycle paths on both sides of the carriageway. There are a number of Public Rights of Way (PRowWs) in the Hicks Gate area, albeit connectivity is hampered by topography and barriers to movement such as major roads, the river and railway line.
- 3.2.16 NCN Routes 3 and 16 are located in the vicinity of Hicks Gate, providing connections to Bristol City Centre, Whitchurch Village and north Bristol.
- 3.2.17 Keynsham and Saltford are also bisected by the A4 Bath Road, which is heavily trafficked and creates further local severance and acts as a barrier to north-south pedestrian movement. For example, from the residential areas to the of the A4 and supermarket and employment opportunities to the north in the Ashmead Industrial Estate. However, the A4 does provide a footway, shared with a cycleway in places, which strengthens east-west pedestrian and cycle movement. Within the residential areas of Keynsham and Saltford, there footways are mostly located on both sides of the carriageway. Furthermore, 20mph speed limits are in place in built-up areas and around schools e.g. on Charlton Road, which further improves the comfort and safety of pedestrians. A pedestrian and cycle zone is enforced on Keynsham High Street between the hours of 09:00 and 16:00 with motor traffic restricted between these times. The design of the High Street has been amended to restrict vehicle traffic and speeds with features such as kerb buildouts and zebra crossings in place.
- 3.2.18 There are a number of PRow footpaths through the countryside around Saltford, It is also worth noting that the Bristol and Bath Railway Path which forms part of the NCN Route 4 is also suitable for walking trips The Sustrans website¹ describes the route as having “disabled access” (albeit the accesses in the vicinity of Saltford may not be sufficient for all users). Also noteworthy is the Avon Cycleway which is an on-road route circular route predominately used for leisure trips. It is worth noting that people access the Bristol to Bath Railway Path via the eastern extent of the 3m shared cycleway adjacent to the A4 (Norman Road/Beech Road).
- 3.2.19 the Somer Valley, there is a network of footpaths which provide alternative routes to the main roads between the main settlements. However, for these routes to provide realistic, safe and usable routes and for them to connect to existing established walking and cycling routes such as the Norton – Radstock Greenway, upgrades in terms of their surfacing, lighting, crossings, wayfinding and access are needed. There are also topographical challenges across the Somer Valley which act as a significant barrier to walking and cycling.
- 3.2.20 NCN Route 24 runs from Bath through Radstock to Frome. It also connects with the NCN Route 244 (The Two Tunnels Greenway) which connects Midford with Bath. Cycling from Radstock to Bath via the NCN 24 and Two Tunnels Greenway is approximately 16 km. Within the Somer Valley, the Norton - Radstock Greenway is a traffic-free cycle route approximately 3km long, which runs from Northmead Road in Midsomer Norton to Somervale Road in Radstock where it connects to the NCN Route 24.
- 3.2.21 Within Midsomer Norton there is a bridleway which runs along Withies Lane (adjacent to the Midsomer Norton South Heritage rail line). Other short sections of bridleway are in Radstock (A362 to Mill Road) and Church Hill to Tynning. In Peasedown St John there are short sections of bridleway, including Eckweek Lane to Dunkerton Hill and Whitebrook Lane to New Buildings. Otherwise, there is limited dedicated cycle infrastructure to connect the towns and villages within the Somer Valley.

- 3.2.22 Whitchurch Village is bisected by the A37 corridor, which provides an arterial route into Bristol City Centre. However, pedestrian and cycle facilities alongside the A37 are fragmented and limited which discourages its use by active modes. Pedestrian crossing points across the A37 are present, although they do not accommodate the desire lines which may be associated with new housing growth in the area.
- 3.2.23 The existing residential areas provide a network of footpaths and there are also a number of PRow's which provide connections for pedestrians to Keynsham. As part of the Liveable Neighbourhoods programme, modal filters limit traffic movement on Queen Charlton Lane and thereby promote travel by active modes between Whitchurch Village and Queen Charlton.

3.3 Public Transport

Bus

- 3.3.1 The bus routes within the B&NES district are illustrated in **Figure 3-4 to Figure 3-7**. There are several bus routes within the Bath urban area that are not illustrated in the figure below, as the plan focuses on bus routes that connect places.

Figure 3-4: B&NES Bus Routes

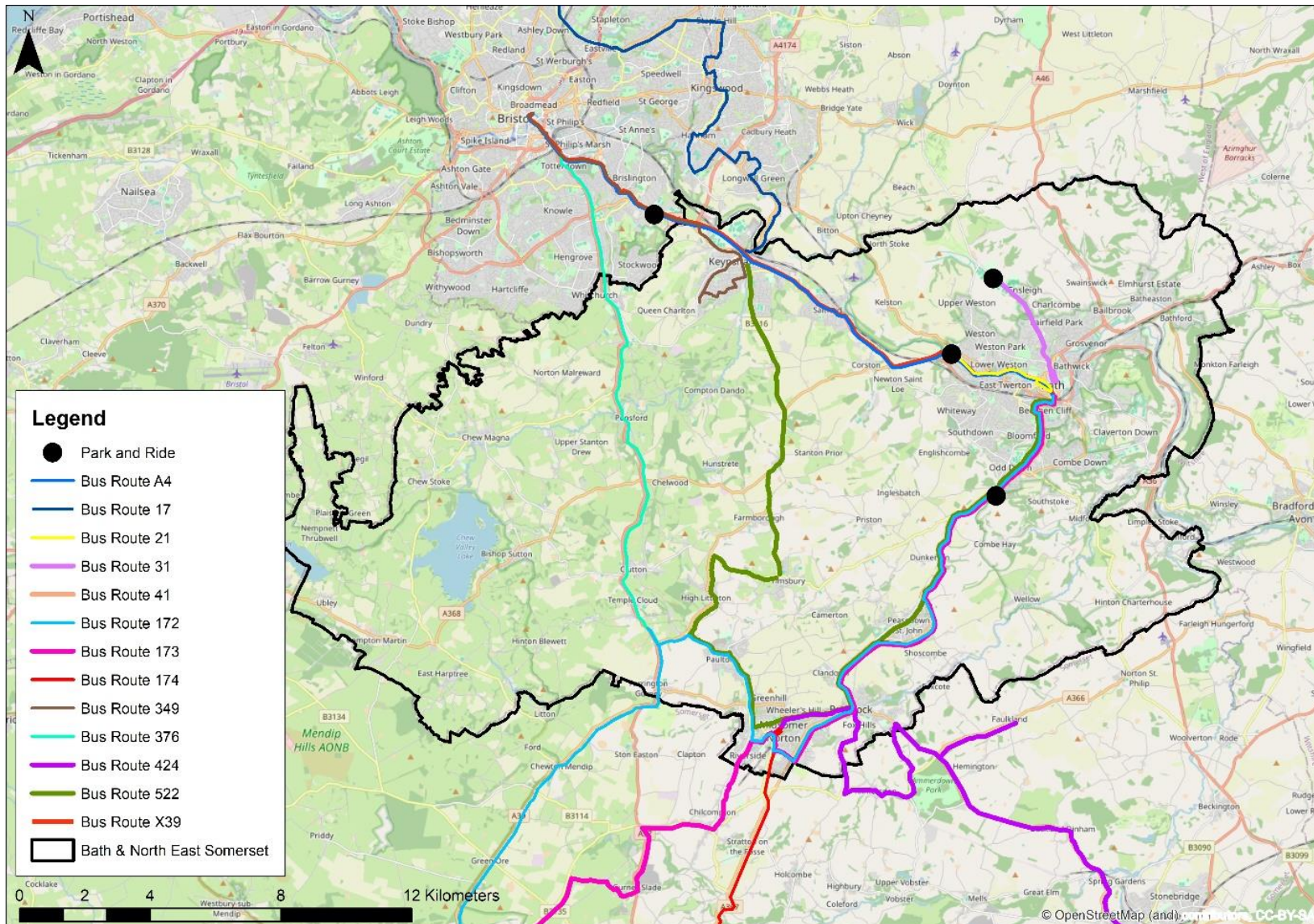


Figure 3-5: Bus Services in Keynsham

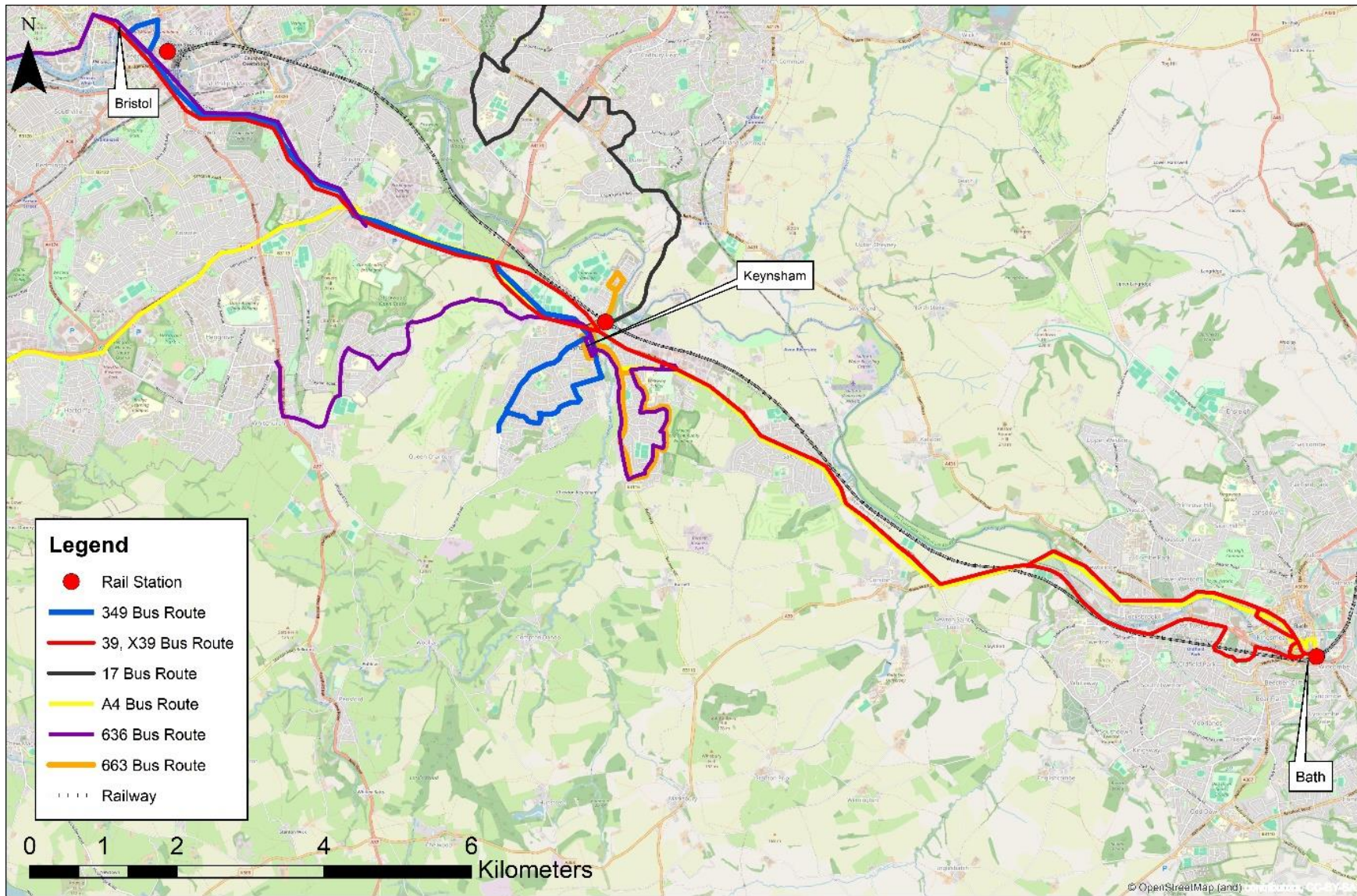


Figure 3-6: Bus Services in Midsomer Norton / Radstock

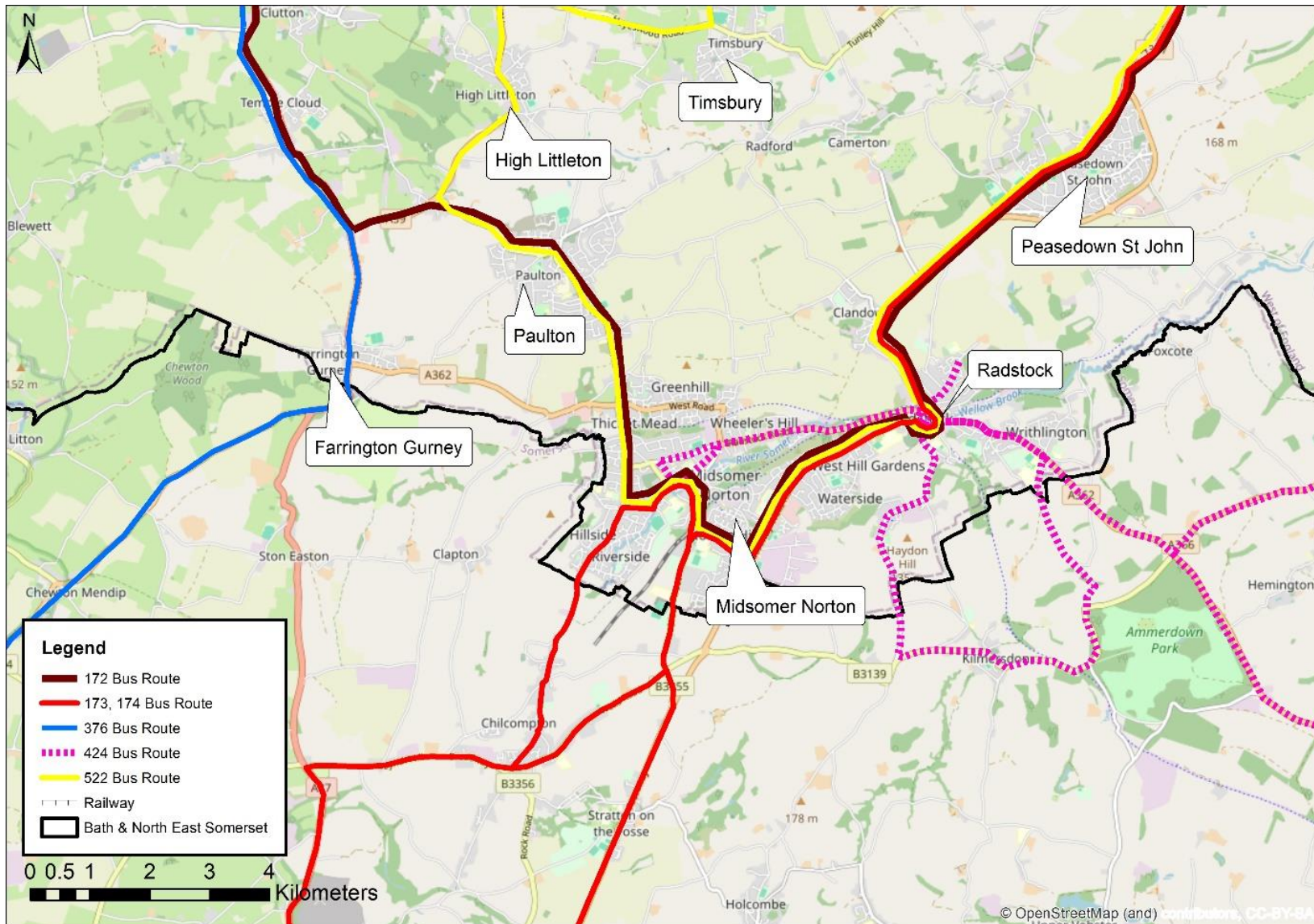
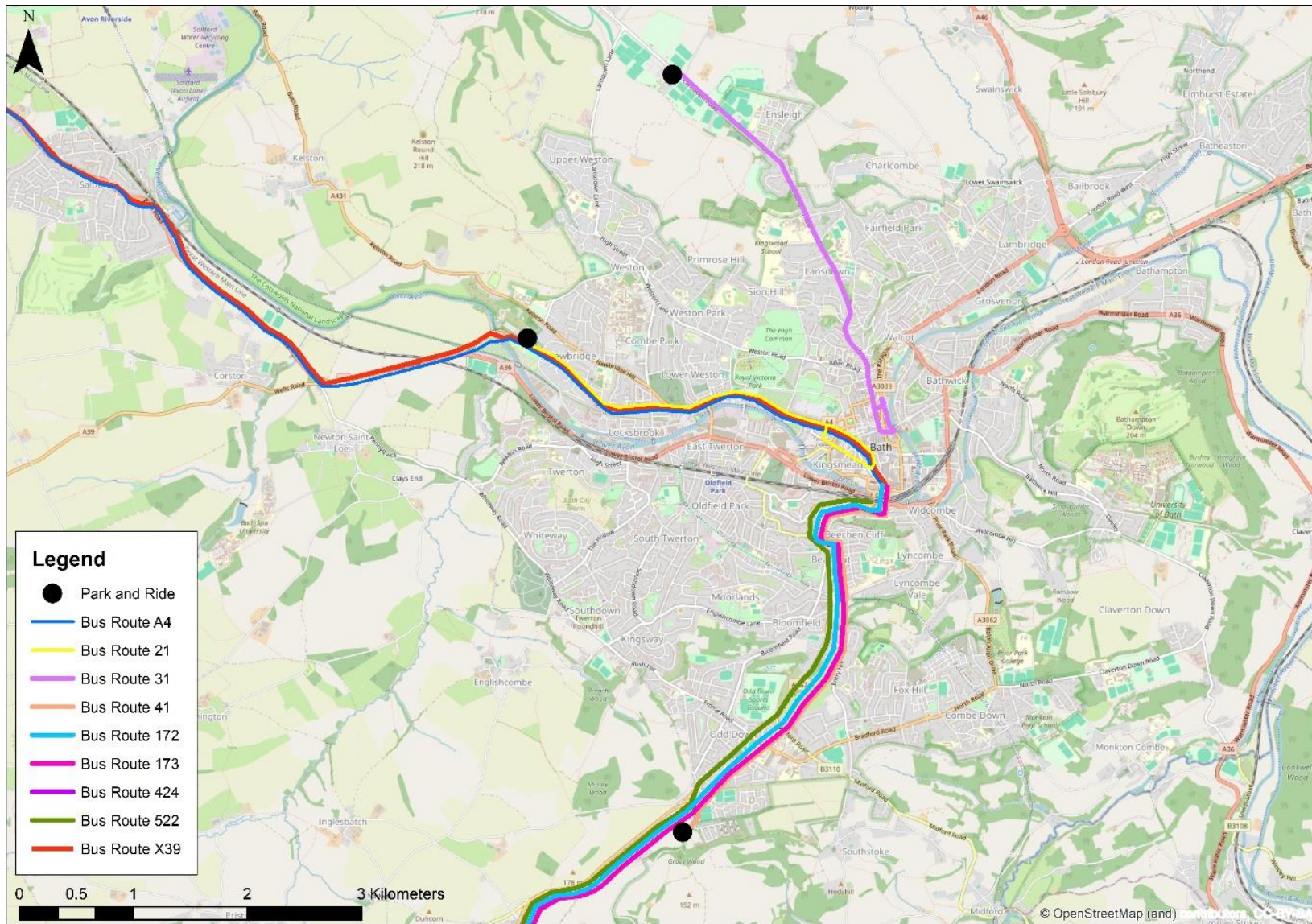


Figure 3-7: Bus Services in Bath



3.3.2 The frequency of the bus services illustrated in Figure 3-4 to Figure 3-7 are set out in **Table 3-1**.

Table 3-1: Local Bus Services and Frequency (Services as of 2nd April 2023)

Service Number	Route	Days	First Service	Last Service	Approx. Frequency
17	Southmead Hospital – Keynsham	Mon-Fri	06:17	20:12	30 mins
		Saturday	06:17	20:12	30 mins
		Sunday	07:26	19:25	60 mins
	Keynsham – Southmead Hospital	Mon-Fri	04:48	21:25	60 mins
		Saturday	04:48	21:25	60 mins
		Sunday	06:45	18:50	60 mins
21	Bath City Centre – Newbridge Park and Ride	Mon-Fri	06:30	20:30	15 mins
		Saturday	06:30	20:30	15 mins
		Sunday	09:45	18:00	15 mins
	Newbridge Park and Ride – Bath City Centre	Mon-Fri	06:15	20:15	15 mins
		Saturday	06:15	20:15	15 mins
		Sunday	09:30	17:45	15 mins
31	Bath City Centre – Lansdown Park and Ride	Mon-Fri	06:30	20:30	15 mins
		Saturday	06:30	20:30	15 mins
		Sunday	09:45	18:00	15 mins
	Lansdown Park and Ride – Bath City Centre	Mon-Fri	06:15	20:15	15 mins
		Saturday	06:15	20:15	15 mins
		Sunday	09:30	17:45	15 mins
39 / X39	Bristol Bus Station – Bath Bus Station (via Keynsham Church)	Mon-Fri	05:35	03:05	15 mins
		Saturday	05:58	03:05	15 mins
		Sunday	08:00	00:15	20 mins
	Bath Bus Station - Bristol Bus Station	Mon-Fri	05:00	02:08	15 mins
		Saturday	05:00	02:05	15 mins
		Sunday	07:00	23:05	20 mins
41	Bath City Centre – Odd Down Park and Ride	Mon-Fri	06:30	20:30	15 mins
		Saturday	06:30	20:30	15 mins
		Sunday	09:45	18:00	15 mins
	Odd Down Park and Ride – Bath City Centre	Mon-Fri	06:15	20:15	15 mins
		Saturday	06:15	20:15	15 mins
		Sunday	09:30	17:45	15 mins
92	The Horsefair – Hengrove Depot	Mon-Fri	05:55	21:15	30 mins
		Saturday	06:50	21:15	30 mins
		Sunday	08:15	21:15	60 mins
	Hengrove Depot - The Horsefair	Mon-Fri	05:18	20:15	30 mins

		Saturday	06:10	20:30	30 mins
		Sunday	07:25	20:25	60 mins
172	Bristol Bus Station – Paulton – Midsomer Norton – Radstock - Peasedown - Bath Bus Station	Mon-Fri	07:15	21:15	30 mins
		Saturday	07:25	21:15	30 mins
		Sunday (Between Wells and Bath)	19:55	20:55	60 mins
	Bath Bus Station – Peasedown – Radstock – Midsomer Norton – Paulton - Bristol Bus Station	Mon-Fri	07:15	00:10	30 mins
		Saturday	07:54	00:10	30 mins
		Sunday	21:10	23:10	60 mins
173	Wells Bus Station – Midsomer Norton – Radstock – Peasedown - Bath Bus Station	Mon-Fri	05:18	18:49	60 mins
		Saturday	05:48	18:47	60 mins
	Bath Bus Station – Peasedown – Radstock - Midsomer Norton - Wells Bus Station	Mon-Fri	06:54	19:47	60 mins
		Saturday	07:42	19:47	60 mins
174	Wells Bus Station – Midsomer Norton – Radstock – Peasedown - Bath Bus Station	Mon-Fri	05:00	18:10	60 mins
		Saturday	06:05	18:11	60 mins
		Sunday	06:21	18:28	60 mins
	Bath Bus Station – Peasedown – Radstock – Midsomer Norton - Wells Bus Station	Mon-Fri	06:39	20:15	60 mins
		Saturday	08:06	20:15	60 mins
		Sunday	08:07	20:07	60 mins
349	Bristol Bus Station – Keynsham Church	Mon-Fri	07:24	18:12	30 mins
		Saturday	07:33	18:14	30 mins
		Sunday	09:06	18:10	60 mins
	Keynsham Church - Bristol Bus Station	Mon-Fri	06:25	18:50	30 mins
		Saturday	06:15	18:45	30 mins
		Sunday	08:35	20:33	60 mins
376	Bristol Bus Station – Wells Bus Station – Street	Mon-Fri	06:55	23:30	30 mins
		Saturday	08:05	23:30	30 mins
		Sunday	09:05	22:25	60 mins
	Street - Wells Bus Station - Bristol Bus Station	Mon-Fri	05:28	21:43	30 mins
		Saturday	06:15	21:40	30 mins
		Sunday	07:08	20:45	60 mins
424	Frome - Midsomer Norton	Mon-Fri	07:00	17:50	120 mins
		Saturday	08:15	16:15	240 mins
	Midsomer Norton – Frome	Mon-Fri	09:10	18:30	120 minutes
		Saturday	11:05	17:05	240 mins
522		Mon-Fri	05:19	19:35	50 mins
		Saturday	04:38	19:35	30-50 mins

	Bristol – Keynsham – Timsbury – Paulton – Midsomer Norton – Radstock – Peasedown – Bath	Sunday	06:42	17:40	60 mins
	Bath – Peasedown – Radstock – Midsomer Norton – Paulton – Keynsham - Bristol	Mon-Fri	06:34	21:33	60 mins
		Saturday	06:30	21:33	60 mins
		Sunday	08:37	19:37	60 mins
636	Hengrove - Whitchurch - Stockwood - Keynsham Keynsham - Stockwood - Whitchurch - Hengrove	Mon, Weds, Fri	10:32	-	One per operating day
		Mon, Weds, Fri	11:50, 13:15 on Fridays	-	One per operating day
663	Somerdale - Keynsham	Monday- Saturday	08:10	16:55	120 mins
672	Blagdon – Chew Magna – Bristol	Mon-Fri	06:53	15:40	Three per day
		Saturday	06:53	15:40	Three per day
	Bristol – Chew Magna – Blagdon	Mon-Fri	08:35	17:15	Three per day
		Saturday	08:35	17:15	Three per day
A4 Air Decker	Dorchester Street - Bus Station	Mon- Sunday	00:00	23:00	60 mins
	Bus Station - Dorchester Street	Mon- Sunday	00:00	23:00	60 mins

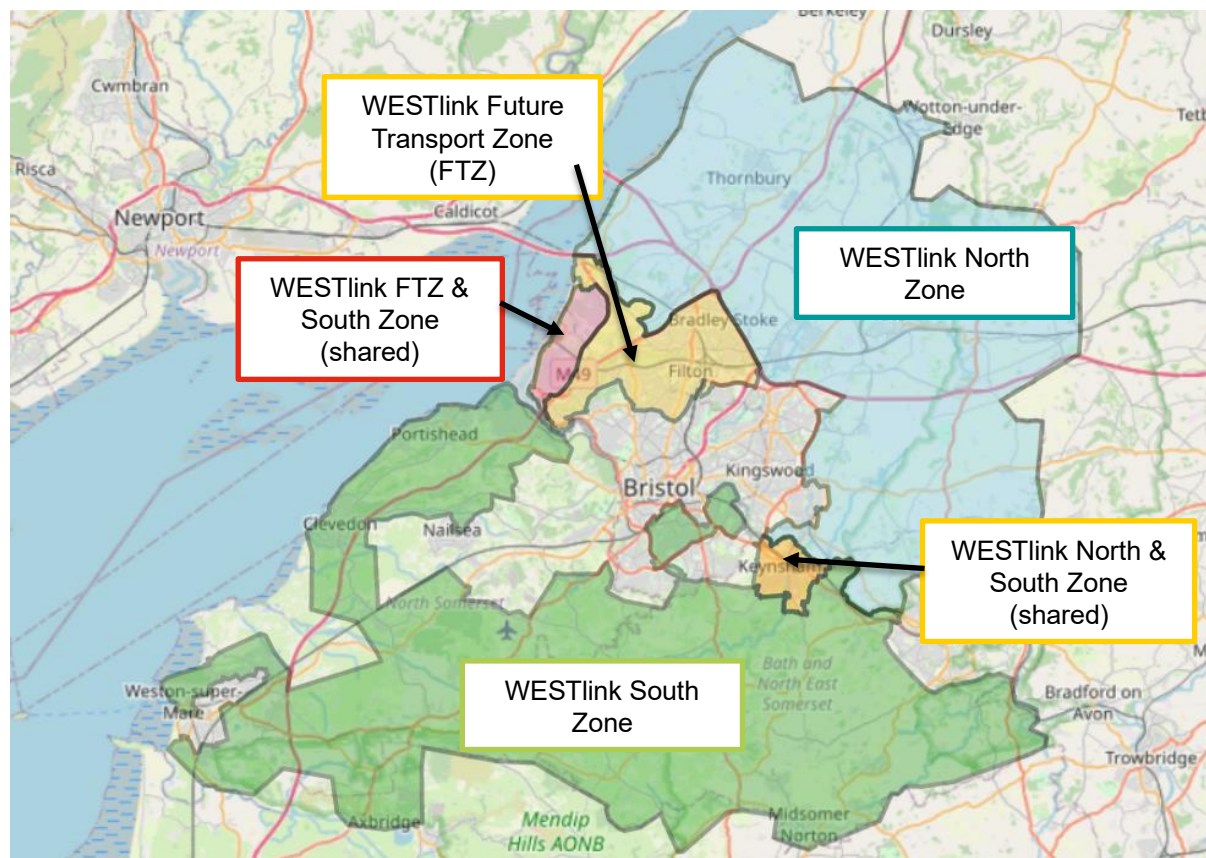
Source: *Bustimes.org* (April 2023); [Service changes 2nd April 2023 | First Bus](#)

- 3.3.3 On 18th January 2023, the West of England Combined Authority (WECA) Committee decided to stop funding some services from April 2023, due to an increase in running costs and low patronage using some services. This resulted in rural services being cut back, however there are still a number of bus services that run which are predominantly on the main corridors into Bath and Bristol. In the meantime, Demand Responsive Transport (DRT) was introduced into WECA as a two year trial.
- 3.3.4 Bath & North East Somerset Council is providing financial support for a small number of key bus services, especially in Bath, where DRT services are not currently provided. The below services were halted in April 2023:
- 178 Midsomer Norton – Brislington Park & Ride
 - 379 Bristol Bus Station - Bath Bus Station
 - 636 Whitchurch – Keynsham
 - 663 Somerdale – Keynsham
 - 754 Radstock – Clutton
- 3.3.5 The below services were funded until the summer of 2023 to ease the transition to the new arrangements:
- 92 The Horsefair – Hengrove Depot (August 2023)
 - 179 Midsomer Norton – Bath (June 2023)
 - 672 Blagdon – Chew Magna – Bristol (July 2023)

- 3.3.6 As a result of funding provided following the successful award to the West of England Combined Authority and North Somerset Council Bus Service Improvement Plan, a revised Service 172 began operation in April 2023. here will be no changes to the route between Bath and Midsomer Norton. From Midsomer Norton, the route will be extended into Paulton and on to Bristol along the route of Service 376, replacing Service 379.

Demand Responsive Transport

- 3.3.7 A Demand Responsive Transport service known as 'WESTlink ' minibuses, started operating across the West of England in April 2023. WESTlink does not operate on a set timetable and it can be booked via an Uber-style app, web or phone in the eligible areas.
- 3.3.8 The services run between 7am and 7pm Monday to Saturday and ticket prices match the recently reduced fares on West of England buses. Algorithms are used to join up people's needs, combining trips and the minibuses run in zones designed to get passengers to key transport corridors to pick up further bus or train services. The new DRT services provide an alternative to those affected by the cuts to bus services in April 2023.
- 3.3.9 The Somer Valley and Whitchurch Village are covered by WESTlink South zone. As shown in **Figure 3-8**, the South zone covers a wide area from Limpley Stoke and Freshford in the east to Weston-super-Mare, Clevedon and Portishead in the west, whilst also incorporating south east of Bristol and Bristol Airport. Travel is only permitted within each zone, but travel into a shared area such as Keynsham and Salford is allowed.
- 3.3.10 WECA is currently in the process of reviewing the DRT zones which may result in smaller zones in the future. This would lead to fewer passengers being able to use the DRT for door to door trips.

Figure 3-8: WESTlink Service Zones

Park and Ride

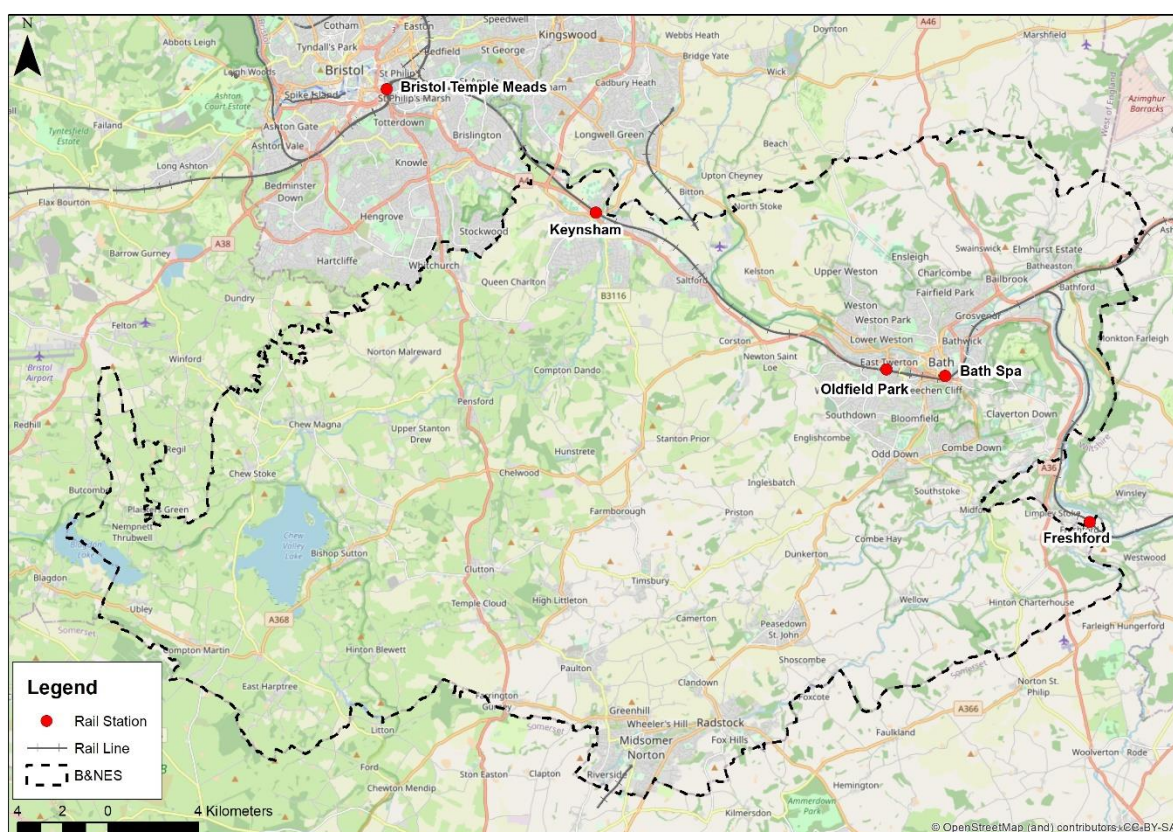
- 3.3.11 There are three Park and Ride sites located in the B&NES district which are Lansdown, Newbridge and Odd Down. In addition, Brislington Park and Ride is located within the Bristol City Council administrative area, close to the north western boundary with B&NES.
- 3.3.12 Lansdown Park and Ride is located on Lansdown Road to the northwest of Bath City Centre. Bus service 31 runs between Lansdown Park and Ride and Bath City Centre every 15 minutes from 06:15 to 20:30. The journey time is approximately 10 minutes. The existing cost is £3.60 return to and from Lansdown Park and Ride. There is a provision of 878 car parking spaces.
- 3.3.13 Newbridge Park and Ride is located on Newbridge Road to the west of Bath City Centre. Bus service 21 runs between Newbridge Park and Ride to Bath City Centre every 15 minutes from 06:15 to 20:30. The journey time is approximately 10 minutes. The existing cost is £3.60 return to and from Newbridge Park and Ride. There is a provision of 698 car parking spaces.
- 3.3.14 Odd Down Park and Ride is located on the south side of bath along the A367, at Odd Down Roundabout. This is where A367 Roman Road and A367 Wellsway meet. Bus service 41 runs between Odd Down Park and Ride and Bath City Centre every 12 to 15 minutes from 06:15 to 20:30. The journey time is approximately 10 minutes. The existing cost is £3.60 return to and from Odd Down Park and Ride. There is a provision of 1,230 car parking spaces and 29 coach parking spaces at Odd Down Park and Ride.
- 3.3.15 Brislington Park and Ride is located on the south side of the A4, adjacent to the crossroads junction with Emery Road. Brislington Park and Ride offers regular services to Temple Meads, Cabot Circus and Broadmead (for central Bristol hospitals). The existing cost is £3.50 return to and from Brislington Park and Ride. There is a provision of 1,300 car parking spaces.

- 3.3.16 As of 2nd April 2023, Stagecoach West is operating Brislington Park and Ride services. The services have been merged into one cross-city route, numbered 9, which runs between the two Bristol Park & Ride sites via Bristol City Centre. The timetable of service 9 is shown in Table 3-1.
- 3.3.17 Between the four Park and Ride sites in B&NES district, there are 4,106 Park and Ride car parking spaces. 2,806 of these spaces serve trips to/from Bath, and 1,300 spaces serve trips to/from Bristol. Bristol also benefits from other Park and Ride sites which are not located in B&NES.
- 3.3.18 There is an obvious gap for a Park and Ride site to the east of Bath which has been a long term issue. Investigations have been undertaken to find a suitable site to the east of Bath for a traditional Park and Ride site, however, no suitable sites were identified. B&NES Council published the 'East of Bath Express Feasibility Study'. This study considers the feasibility of delivering a Chippenham to Bath Link and Ride bus service offer with local interchange points, linked bus services and cycle routes. The Link and Ride bus service concept is intended to serve local towns and villages along the A4 corridor, providing a link to central Bath. The A4 corridor is currently served by the X31 Chippenham to Bath bus service. To drive demand to commercially viable levels, the Link and Ride site between Chippenham and Bath would need to be delivered as part of a wider package of measures, including demand management measures. This wider package of measures is currently being developed through the Journey to Net Zero project that will identify the transport improvements required to address the Climate Emergency declared by B&NES in 2019.
- 3.3.19 There is currently no bus priority infrastructure for the Park and Ride sites which means that passengers do not benefit from improved journey times by using the Park & Ride service.

Rail Services

- 3.3.20 There are four railway stations in the district which are, Bath Spa, Oldfield Park, Freshford and Keynsham. In addition, Bristol Temple Meads which is readily accessible from parts of B&NES is located to the north-west of the district. These railway stations are shown in **Figure 3-9**.

Figure 3-9: Rail Stations



3.3.21 The facilities and services available at each station are outlined in **Table 3-2**.

Table 3-2: Summary of Facilities at Local Railway Stations

Facility	Keynsham	Bath Spa	Oldfield Park	Freshford	Bristol Temple Meads
Car Parking	49 Spaces	78 Spaces	No	13 Spaces	374 Spaces
Disabled Car Parking	2 Spaces	4 Spaces	No	No	6 Space
Taxi Rank	No	Yes	Yes	No	Yes
Cycle Storage	Yes	Yes	Yes	Yes	Yes
Staffing / Ticket Office	Monday - Friday 06:45 - 09:30	Monday – Saturday 06:00 – 20:00 , Sunday 07:45 – 20:00	Monday to Friday – 06:45 to 09:40	No	Monday – Saturday 06:15 – 21:30 , Sunday 06:45 – 21:30
Self Service Ticket Machines	Yes	Yes	Yes	No	Yes
Step Free Access Coverage	Yes	Yes	Some step-free access	No	Yes

Source: National Rail (January 2023).

3.3.22 The table shows that the facilities provided at each railway station varies according to the size and patronage of each station. Bath Spa and Bristol Temple Meads have the greatest number of facilities and best accommodate travel by active modes to access the station. Keynsham station does not feature a taxi rank. It is also less accessible, branded as a Category B1 station for accessibility as access to Platform 1 for disabled users is through a car park. This is because the alternative access is a stepped footbridge.

3.3.23 **Table 3-3** shows the strategic rail services provided from Keynsham station.

Table 3-3: Summary of Rail Services at Keynsham Railway Station (as of April 2023)

Direction	Days	First Service	Last Service	Approximate Frequency
To Bristol Temple Meads	Mon-Fri	06:38	23:22	30 mins
	Sat	07:18	23:30	30 mins
	Sun	09:20	23:32	30 mins
From Bristol Temple Meads	Mon-Fri	05:51	23:45	30 mins
	Sat	05:46	23:12	30 mins
	Sun	09:29	20:56	30 mins
To Frome (via Bath Spa)	Mon-Fri	05:58	23:52	60 mins
	Sat	08:11	23:19	60 mins
	Sun	09:36	22:42	120 mins
From Frome (via Bath Spa)	Mon-Fri	06:42	21:35	60 mins
	Sat	08:11	21:40	60 mins
	Sun	09:22	21:32	120 mins
To Weymouth	Mon-Fri	08:11	20:57	120 mins
	Sat	08:11	20:55	120 mins
	Sun	09:36	20:56	240 mins
From Weymouth	Mon-Fri	06:38	20:14	120 mins
	Sat	06:38	20:18	120 mins
	Sun	14:15	20:11	120 mins
To Portsmouth Harbour (via Bath Spa, Southampton Central)	Mon-Fri	05:58	18:29	Two per day
	Sat	05:53	-	One per day
	Sun	11:24	21:35	120 mins
From Portsmouth Harbour (via Bath Spa, Southampton Central)	Mon-Fri	06:01	16:23	Two per day
	Sat	06:08	-	One per day
	Sun	09:08	21:08	180-240 mins

Source: National Rail (April 2023). All services listed are direct.

3.3.24 The table shows that Keynsham station offers services to a range of destinations, however most services are infrequent. This means that for services to Bath Spa and Bristol Temple Meads, waiting times can be thirty minutes to an hour. Neighbouring towns such as Saltford and Midsomer Norton do not have railway stations, and therefore rail usage is not an option from or to these locations by rail, resulting in more of these shorter journeys having to be made by car.. The strategic location of Keynsham between Bath and Bristol makes it a very attractive place for people to catch the train from into both cities. This attracts a lot of additional trips from the surrounding district using it as a rail and ride. This creates issues

with congestion and parking with unmet parking demand being met in the Somerdale development. More needs to be done to create better sustainable links via walking, cycling and especially bus to the station. Bus service 17, X39 and 348 all stop at Keynsham Station providing connections to Bristol, Bath and Southmead Hospital.

3.3.25 **Table 3-4** shows a summary of rail services provided from Bath Spa.

Table 3-4: Summary of Rail Services at Bath Spa Railway Station (as of April 2023)

Direction	Days	First Service	Last Service	Approximate Frequency
To Portsmouth Harbour (via Bath Spa)	Mon-Fri	05:15	21:39	60 mins
	Sat	06:04	21:36	60 mins
	Sun	09:32	21:46	60 mins
From Portsmouth Harbour (to Bristol Temple Meads)	Mon-Fri	06:01	21:23	60 mins
	Sat	06:08	20:23	60 mins
	Sun	09:08	21:08	60 mins
To London Paddington	Mon-Fri	05:35	22:53	30 mins
	Sat	05:43	22:45	30 mins
	Sun	07:58	22:43	60 mins
From London Paddington	Mon-Fri	05:23	23:32	30 mins
	Sat	06:30	23:30	30 mins
	Sun	08:05	23:33	30 mins

Source: National Rail (April 2023). All services listed are direct.

3.3.26 The table shows that Bath Spa station has frequent services to Portsmouth, Bristol Temple Meads and London Paddington. Bath Spa station serves the same locations as Keynsham, Oldfield Park and Freshford but at a greater frequency. There are three bus services that stop at Bath Spa station, service 2, 20, and U1 that provide connections to the University of Bath, Kingsmead and Coombe Down. In 2009, the Government announced that the Great Western main train line, which serves Bath, would be electrified as part of a wider £1.1 billion funding package, seeking to modernise rail travel and reduce carbon emissions. Electrification of the line would improve journey times, increase capacity and improve reliability whilst reducing carbon emissions, resulting in improved air quality. The planned completion of electrification between Bristol Temple Meads, Bristol Parkway and Chippenham is anticipated to take place between 2020 and 2030.

3.3.27 **Table 3-5** shows a summary of rail services provided from Oldfield Park.

Table 3-5: Summary of Rail Services at Oldfield Park Railway Station (as of April 2023)

Direction	Days	First Service	Last Service	Approximate Frequency
To Weymouth	Mon - Fri	08:18	21:04	120 mins
	Saturday	08:18	20:59	120 mins
	Sunday	-	-	-
From Weymouth	Mon - Fri	06:38	20:14	120 mins
	Saturday	06:38	20:18	120 mins
	Sunday	-	-	-
To Gloucester (via Bath Spa, Bristol Temple Meads)	Mon - Fri	08:53	16:31	60 mins
	Saturday	08:54	20:18	60 mins
	Sunday	-	-	-
From Gloucester (via Bristol Temple Meads, Bath Spa)	Mon - Fri	08:11	18:10	60 mins
	Saturday	07:07	18:10	60 mins
	Sunday	-	-	-
To Warminster	Mon - Fri	06:05	21:59	60 mins
	Saturday	06:00	21:56	60 mins
	Sunday	11:31	21:42	60 mins
From Warminster	Mon - Fri	06:27	22:34	60 mins
	Saturday	06:26	22:34	60 mins
	Sunday	10:48	20:20	60 mins
To Bristol Temple Meads	Mon - Fri	06:31	23:17	30 mins
	Saturday	07:11	23:23	30 mins
	Sunday	09:13	22:16	60 mins
From Bristol Temple Meads	Mon - Fri	05:51	23:45	30 mins
	Saturday	05:46	23:12	30 mins
	Sunday	09:29	22:35	60 mins
To Bath Spa	Mon - Fri	06:28	23:14	30 mins
	Saturday	07:08	23:20	30 mins
	Sunday	09:10	22:13	60 mins
From Bath Spa	Mon - Fri	06:28	23:14	30 mins
	Saturday	07:08	23:20	30 mins
	Sunday	09:10	22:13	60 mins

Source: National Rail (April 2023). All services listed are direct.

3.3.28 There are several services running from Oldfield Park railway station to a range of destinations. However, services can be infrequent, especially at off-peak times. There are few late and weekend services which reduces flexibility for users. There are direct connections Monday – Sunday to stations such as Bath Spa, Bristol Temple Meads and Bristol Parkway, where passengers can access services across the strategic rail network with a greater range of destinations.

3.3.29 **Table 3-6** shows a summary of rail services provided from Freshford.

Table 3-6: Summary of Rail Services at Freshford Railway Station (as of April 2023)

Direction	Days	First Service	Last Service	Approximate Frequency
To Westbury	Mon - Fri	06:19	00:33	60 mins
	Saturday	06:13	23:39	60 mins
	Sunday	09:55	23:03	60 mins
From Westbury	Mon - Fri	05:58	22:44	60 mins
	Saturday	06:38	22:50	60 mins
	Sunday	08:39	21:43	60 mins
To Bristol Temple Meads (via Bath Spa)	Mon - Fri	06:16	23:02	60 mins
	Saturday	06:56	23:08	60 mins
	Sunday	08:58	22:01	60 mins
From Bath Spa (via Bristol Temple Meads)	Mon - Fri	06:09	00:15	60 mins
	Saturday	06:04	23:30	60 mins
	Sunday	09:46	22:54	60 mins
To Warminster	Mon - Fri	06:13	22:12	60 mins
	Saturday	06:13	22:09	60 mins
	Sunday	15:07	16:09	Two per day
From Warminster	Mon - Fri	06:27	22:34	60 mins
	Saturday	06:26	22:34	60 mins
	Sunday	16:26	20:20	Three per day

Source: National Rail (April 2023). All services listed are direct.

3.3.30 There is a limited range of destinations from Freshford railway station. Services are typically hourly to every two hours on weekdays, and frequency is reduced on weekends. There are few late services, which reduces flexibility for passengers. However, from Freshford, there is a direct hourly connection to Bristol Temple Meads and Bath Spa. These stations offer connections across the strategic rail network. This connection by rail could also be used frequently by commuters. There is not a bus stop present directly accessible from Freshford Station. There is only one bus service that runs through Freshford which is bus service 94 which provides connections to Bath City Centre and Trowbridge.

3.3.31 **Table 3-7** shows a summary of rail services provided from Bristol Temple Meads. Whilst this station is not located within the B&NES district, there are easy links to Bristol Temple Mead from Keynsham and Bath for interchange opportunities.

Table 3-7: Summary of Rail Services at Bristol Temple Meads Railway Station (as of March 2023)

Direction	Days	First Service	Last Service	Approximate Frequency
To London Paddington	Mon-Fri	04:53	22:40	30 mins
	Sat	05:30	22:30	30 mins
	Sun	07:45	22:30	60 mins

	Mon-Fri	05:23	23:32	30 mins
From London Paddington	Sat	06:30	23:30	30 mins
	Sun	08:05	23:33	60 mins
	Mon-Fri	06:25	20:37	30 mins
To Birmingham New Street	Sat	06:15	20:31	60 mins
	Sun	09:15	22:10	60 mins
	Mon-Fri	07:12	22:12	30 mins
From Birmingham New Street	Sat	07:12	21:12	30 mins
	Sun	09:30	22:12	60 mins
	Mon-Fri	05:20	22:58	30 mins
To Cardiff Central	Sat	06:28	22:58	30 mins
	Sun	09:05	22:45	30 mins
	Mon-Fri	06:30	23:30	30 mins
From Cardiff Central	Sat	06:30	22:47	30 mins
	Sun	09:18	23:11	30 mins
	Mon-Fri	04:53	22:46	20 mins
To Bristol Parkway	Sat	06:15	22:18	30 mins
	Sun	09:15	22:42	30 mins
	Mon-Fri	06:13	23:47	20 mins
From Bristol Parkway	Sat	06:28	23:00	30 mins
	Sun	10:10	23:21	30 mins
	Mon-Fri	05:45	22:58	15 mins
To Filton Abbey Wood	Sat	06:28	22:58	15 mins
	Sun	09:05	22:45	20 mins
	Mon-Fri	06:17	00:13	15 mins
From Filton Abbey Wood	Sat	06:32	23:04	15 mins
	Sun	10:06	23:19	20 mins
	Mon-Fri	05:10	22:24	30 mins
To Avonmouth	Sat	05:12	22:16	30 mins
	Sun	08:54	21:00	60 mins
	Mon-Fri	06:03	23:18	30 mins
From Avonmouth				

	Sat	06:12	23:07	30 mins
	Sun	09:46	21:28	60 mins
To Plymouth	Mon-Fri	05:40	23:48	30 mins
	Sat	05:35	21:45	30 mins
	Sun	08:00	21:45	45 mins
From Plymouth	Mon-Fri	05:24	21:25	30 mins
	Sat	05:27	19:50	30 mins
	Sun	09:27	23:20	45 mins

Source: National Rail (March 2023). All services listed are direct.

- 3.3.32 Overall, there is ample provision of rail services from the stations within B&NES to mainly local destinations. Services begin early in the morning and finish late at night, ensuring a provision to suit a wide range of travel times. Connections at Bath Spa and Bristol Temple Meads provide opportunities to board services covering a number of national destinations, and offer greater flexibility and options compared to Keynsham railway station. The railway connection between Keynsham and Bristol Temple Meads and Bath Spa is of great value to commuters. However, there are large parts of the district that are not within easy reach of the stations, particularly to the south and west of the district. This includes the settlements within the Somer Valley.

3.4 Shared Micromobility

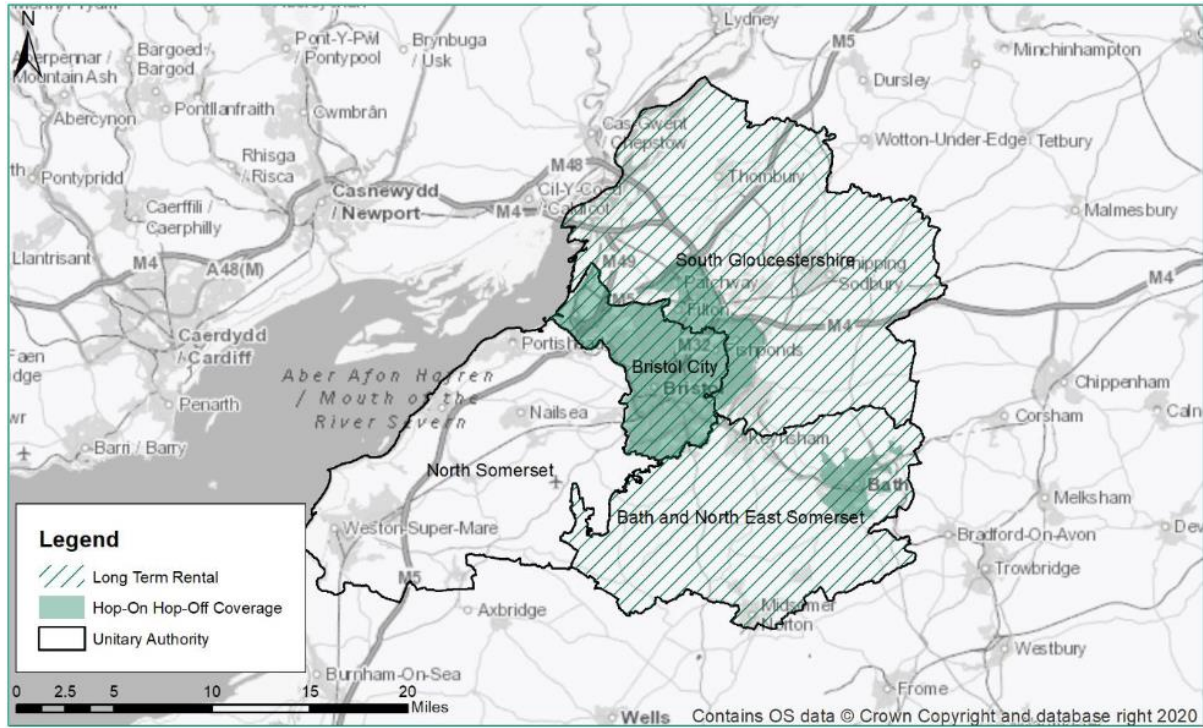
E-bike, scooter, and cargo bikes hire

- 3.4.1 Bath and North East Somerset Council has set up an initiative called the Loan Bike Scheme. The Loan Bike Scheme is funded by the Council and operated by local bike shops, with the intention of helping residents to swap from their car to a bike. The scheme also gives people the opportunity to try different bikes prior to buying them. Electric bikes are included in this scheme, and particularly help with hilly areas around Bath. The scheme allows bikes to be borrowed for two to four weeks and all bikes are supplied with the necessary equipment, including lights and a cycle lock.
- 3.4.2 In terms of e-bike hire, TIER is currently operating an e-bike hire scheme in Bath, and are looking to potentially extend this scheme into Keynsham and the Somer Valley in 2024. In Bath, there are private organisations such as Bath e-bike Hire who have e-bikes available to rent for a fee. The marketing for schemes such as this focuses on visitors and e-bikes are available for day rentals to explore Bath.
- 3.4.3 E-scooters are an example of a shared micro-mobility scheme in Bath. As part of a trial led by the West of England Combined Authority (WECA), e-scooters are available to hire in Bath for residents and visitors.
- 3.4.4 The trial provides hop-on/hop-off e-scooters in Bath and Bristol, enabling alternative ways of getting around. The trial started in October 2020 and in its first year saw 2.5 million rides across the West of England. As part of the trial there were initially 100 scooters within the Bristol City Council administrative area and 50 within Bath available. The trial is the most popular of the 31 trial areas across the country, with more than 7.3m journeys since the scheme started in 2020, as of January 2023. As well as providing a hop on hop off service, in Bath, the scooters are also available for long-term rental by members of the public. As part of a new service launched in October 2023, a fleet of 500 shared e-bikes and e-scooters is now in place following TIER taking over the West of England Combined Authority contract. This will be bolstered with the inclusion of 20 e-cargo bikes which are due to be introduced by Winter 2023 / 2024. There is an opportunity to consider how the e-scooter

network can be expanded further to serve the areas outside of Bath, with proposals to extend coverage to Keynsham and Midsomer Norton in 2024. Offering this alongside long-term rental provides greater flexibility for riders, broadening its appeal.

3.4.5 The coverage of the WECA e-scooter trial is shown in **Figure 3-10**.

Figure 3-10: WECA e-scooter Trial

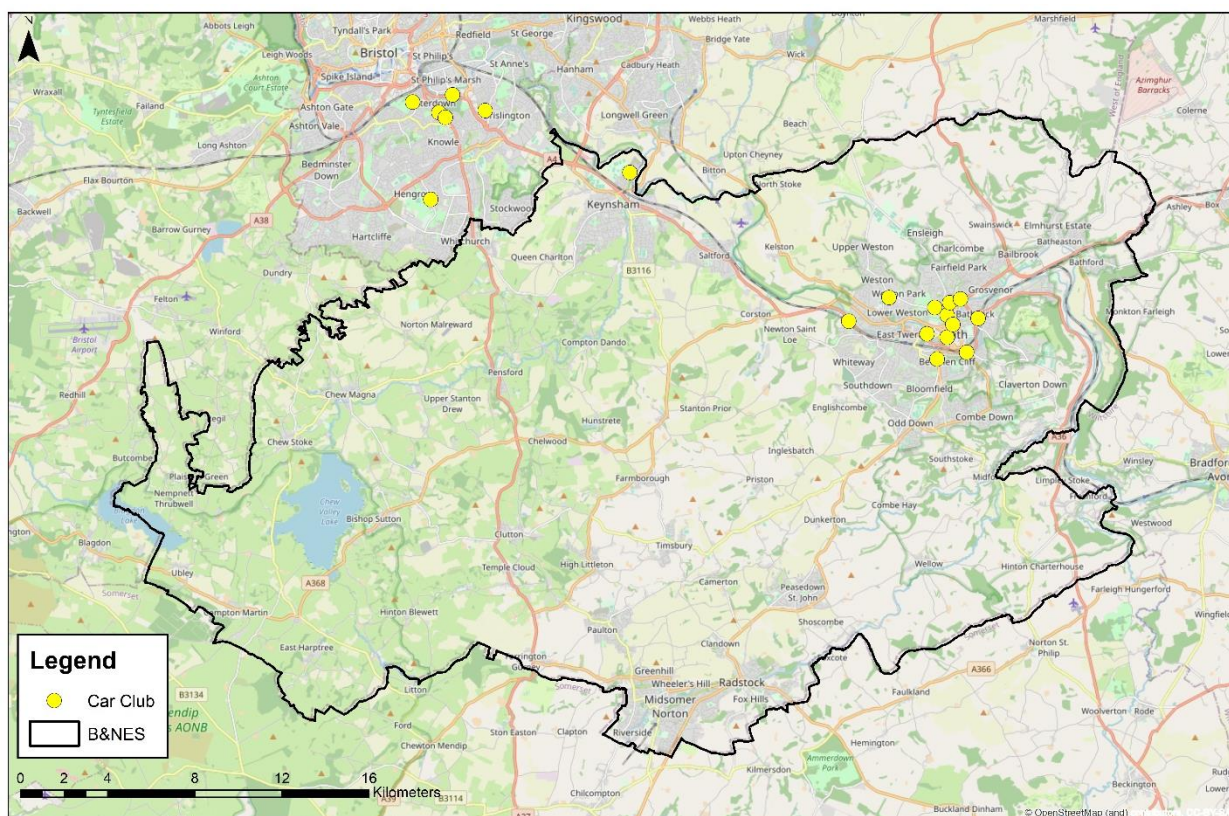


Car Clubs

3.4.6 Car clubs offer an alternative model to private car ownership for individuals and businesses. They reduce the need for private parking and can help people to give up their cars, while allowing for occasional car travel. Cars are parked in designated bays across the city and can be booked online or via phone, and there are no extra costs for insurance, fuel, and maintenance costs.

3.4.7 **Figure 3-11** shows the location of existing vehicles available to hire from Enterprise Car Club, with 13 car club spaces located within Bath & North East Somerset.

Figure 3-11: Car Club Locations



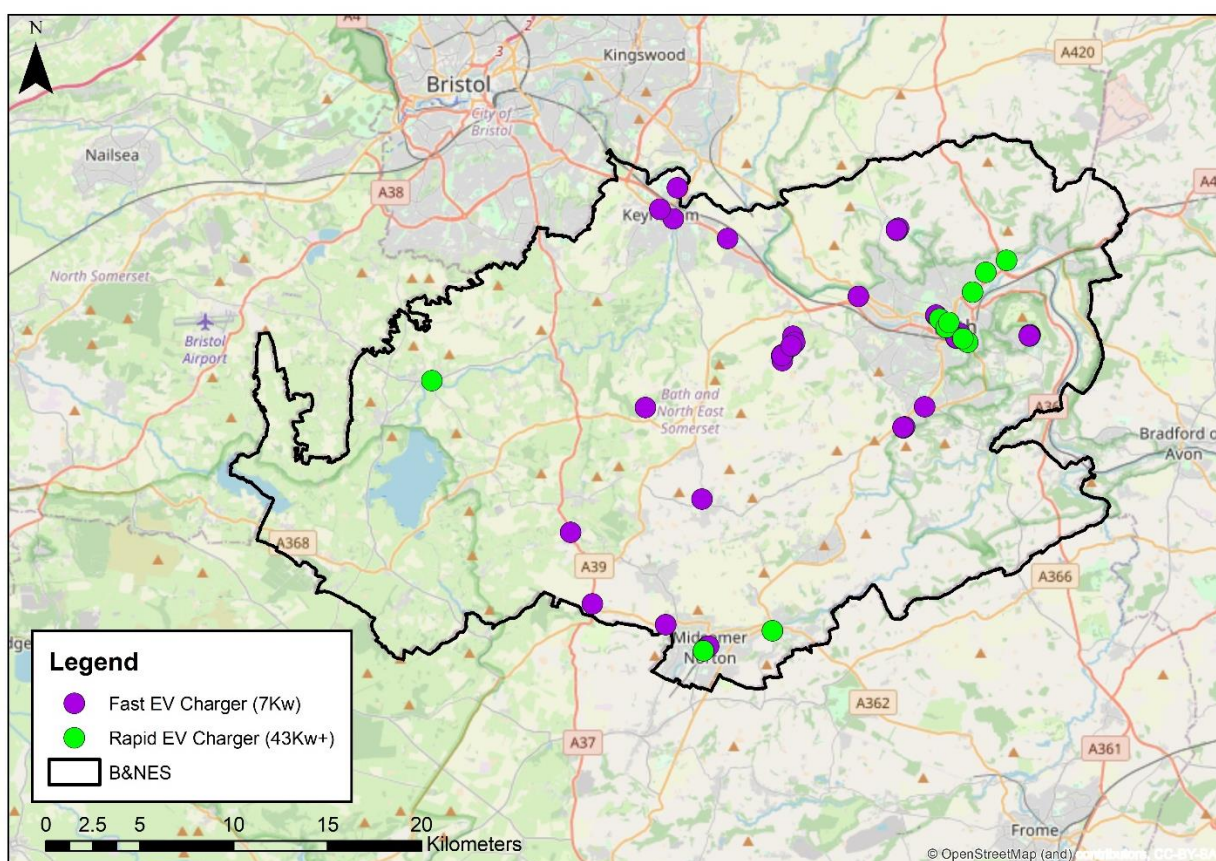
3.4.8 Enterprise Car Club is the main car club operator in the District, with all car clubs within Bath & North East Somerset in Figure 3-11 being Enterprise cars. Cowheels, Hiyacar and Zipcar are other car club operators in the region, however their existing operation is solely in the Bristol area. Travelwest provide information on car clubs in the West of England. This includes the location of the nearest car clubs, contact details of all operators, as well as information regarding the benefits of car clubs.

3.4.9 Existing car club provision in the four broad locations for growth is limited to just one car club space located in Chocolate Quarter in Keynsham on Trajectus Way. This is approximately 580m to the north of Keynsham railway station, via accessible routes following Somerdale Road.

Electric Vehicle Charging

3.4.10 **Figure 3-12** shows the location of charging points in Bath and North East Somerset. This information has been provided by Zap-Map, a UK-wide map of electric car charging points that helps electric car drivers locate and navigate to their nearest EV charging point.

Figure 3-12: Electric Vehicle Charging Point Locations (October 2023)



3.4.11 As Figure 3-12 shows, the majority of electric vehicle charging points in Bath and North East Somerset are clustered in Bath city centre. B&NES Council provides 20 EV charging points across the district at the following locations:

- Lansdown Park and Ride;
- Odd Down Park and Ride;
- Newbridge Park and Ride;
- Charlotte Street Car Park;
- Church Street Car Park;
- Kingsmead Square Car Park;
- Fox and Hounds Car Park;
- Dragonfly Leisure Centre;
- Larkhall Square Car Park; and
- Claverton Street Car Park.

3.4.12 The cluster to the south of the A36 is Bath Spa University, whose transport policy aims to minimise the health, social and environmental impacts of their travel and commits to increasing the provision of electric car charging points to all of their main campuses. There are currently twelve electric charging points across Bath Spa campuses.

3.4.13 Figure 3-12 indicates that the majority of charging points located outside of Bath City Centre are fast charging points (7Kw).

3.4.14 For the remainder of the district, provision of electric vehicle charging points is generally limited to more urban areas including Keynsham, Midsomer Norton and Radstock. Where

charging points are provided, it is often in car parks at retail units or on-street on strategic roads.

3.5 Car Parking

3.5.1 Parking surveys were undertaken in Keynsham, Midsomer Norton and Radstock between 1st and 7th November 2022. Each of these towns form part of the ‘Broad locations for growth.’ The surveys were undertaken at regular intervals on a continuous basis through the survey period. This number of vehicles parked was recorded, so that the percentage of car parking spaces occupied can be determined. This helps identify the peak times of day which car parking is busiest. The parking survey data is useful to show where parking demand is greatest and where it is currently underutilised.

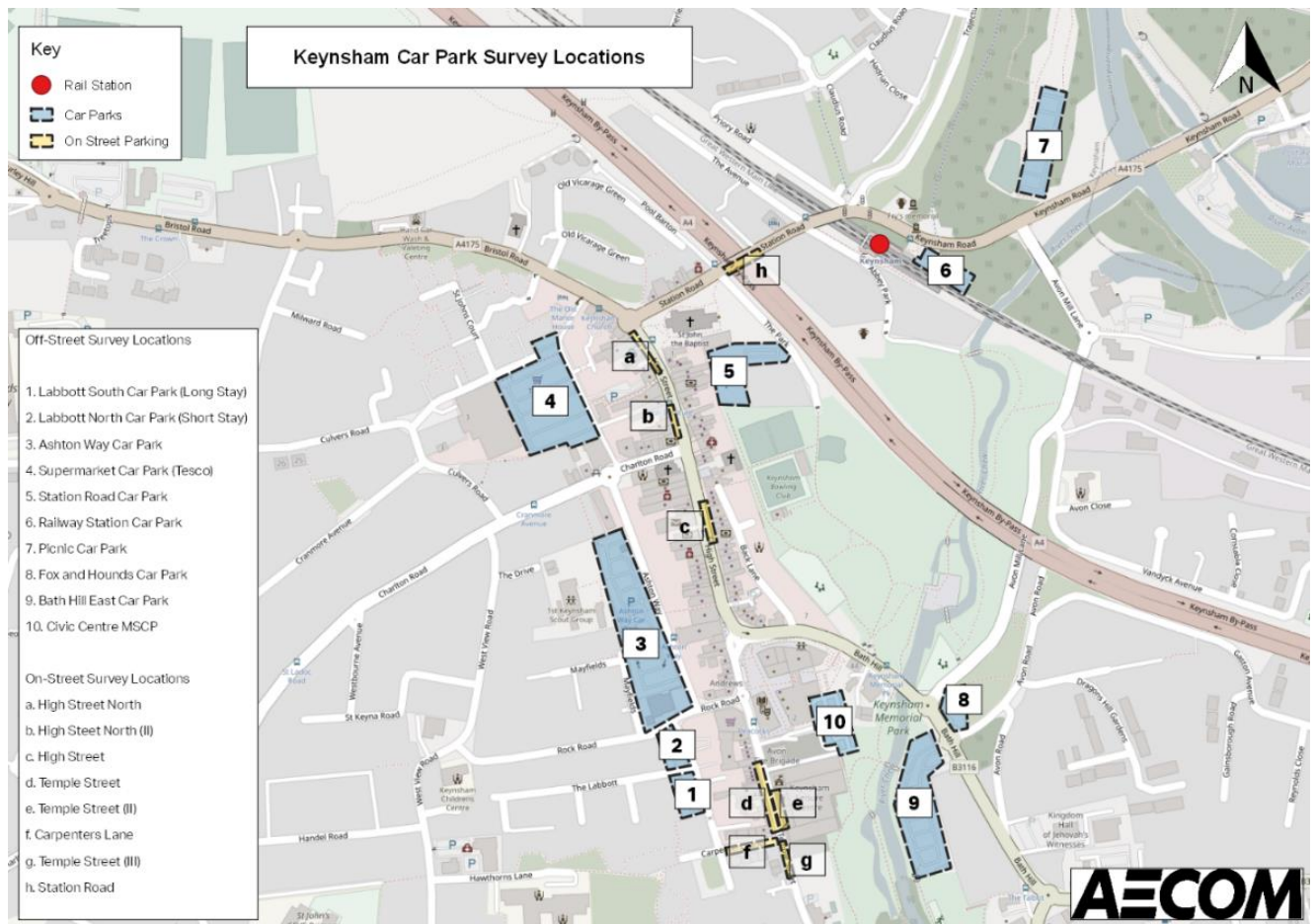
3.5.2 Parking surveys of both on-street parking and off-street car parks were undertaken. On-street parking can perform an important function in providing accessibility for individuals with mobility impairments that rely on close proximity parking to facilitate their personal mobility.

3.5.3 The parking survey results for Keynsham, Midsomer Norton and Radstock are set out in the following paragraphs.

Keynsham

3.5.4 The car park survey locations in Keynsham are shown in **Figure 3-13**. This includes 10 car parks and eight on-street parking locations.

Figure 3-13: Car Park Survey Locations in Keynsham



3.5.5 The survey results for the on-street locations show that:

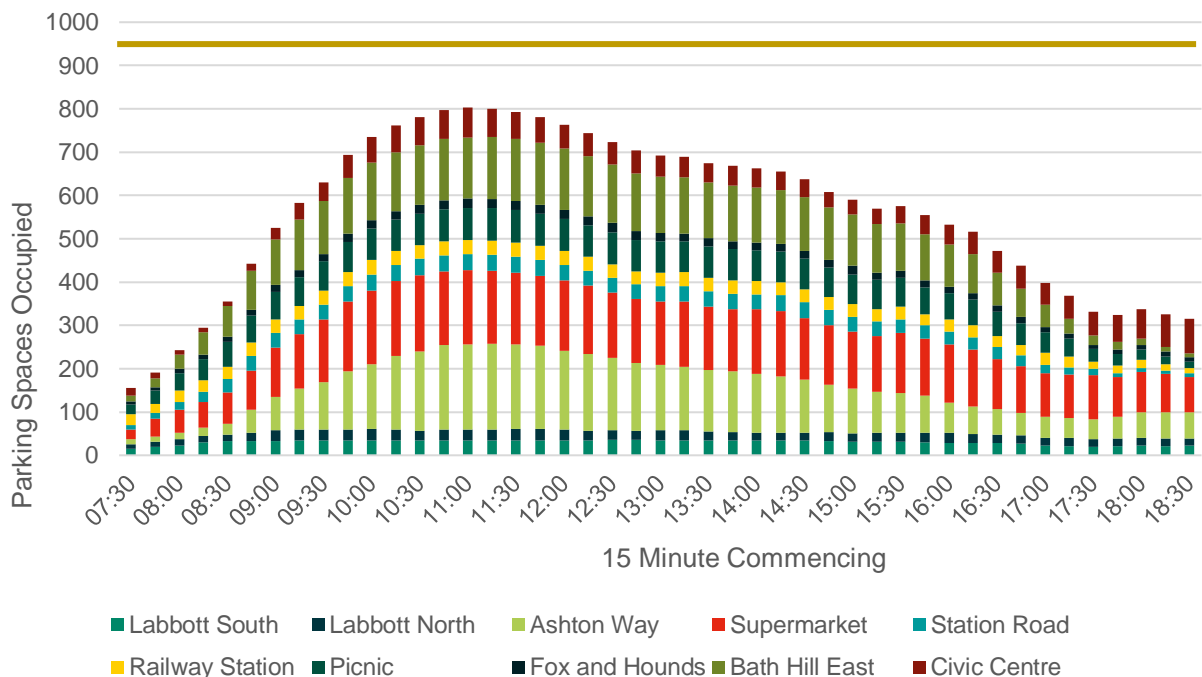
- Location “B”, or, High Street North (II) has the highest percentage occupancy, with the approximately three spaces that are available regularly being fully occupied and regularly exceeding capacity around the time of 17:30;
- Overall, the lowest percentage occupancy for the on-street spaces are location “A” and location “H”, or High Street North and Station Road, respectively. These both have a peak occupancy around 10:15 – 10:30hrs and it is reasonable to attribute the lower occupancy to being relatively less convenient and therefore more of an impediment to those with mobility impairments compared to other locations; and
- The peripheral on-street parking location of Station Road (reference H) is notable in that it is a significant distance from any amenities and is generally poorly utilised (7-day mean occupancy of 34%).

3.5.6 For the off-street car parks, the results show that:

- Labbott South Car Park (Location 1) has the highest average percentage occupancy at 89% of total capacity at peak times and across opening hours on weekdays;
- The lowest occupancy occurs at the Railway Station and Picnic Car Parks where there appears to be excess capacity. It should be noted that the Picnic Car Park is free of charge and has nearly double the capacity, whereas the nearby Railway Station Car Park (situated approx. 150m southwest) is chargeable;
- The analysis of survey data of parking locations within Keynsham Town Centre shows that during the study period, at the median peak time of 11:00hrs, across the off-street car parks surveyed there was an excess parking capacity of 23%, equivalent to approximately 227 car parking spaces.

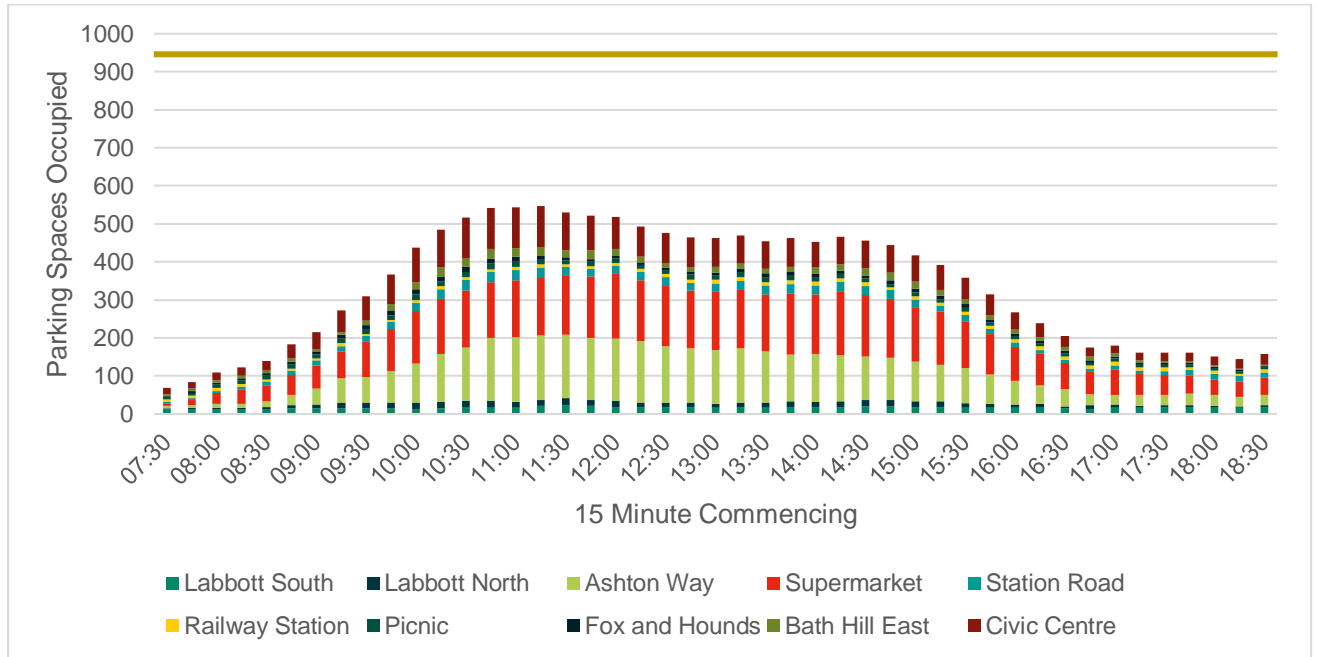
3.5.7 For Keynsham, across all off-street car parks in the study area the peak time across a 7-day period occurred at 11:00hrs, with 803 car parking spaces (out of 968) occupied, equating to 83% of the total number of car parking spaces. The average number of car parking spaces to be occupied during the 7-day period was 561 spaces (58%).

Figure 3-14: Keynsham Off-Street Weekday Parking Survey Summary (01.11.22 - 07.11.22)¹



¹ It should be noted that, on 25th October 2022, The “National Union of Rail, Maritime and Transport Workers” (RMT) scheduled strike action on the 5, 7, and 9 November. However, subsequently on 4 November, the RMT announced the strikes had been suspended. Despite the strikes ultimately not proceeding, it is not clear whether these events would have impacted the results of the survey and this should be borne in mind when interpreting the results (particularly for rail-linked car parks).

Figure 3-15: Keynsham Off-Street Weekend Parking Survey Summary (05.11.22-06.11.22)



On-Street Parking Results Summary

Figure 3-16: Keynsham On-Street Weekday Parking Survey Summary (01.11.22 - 07.11.22)

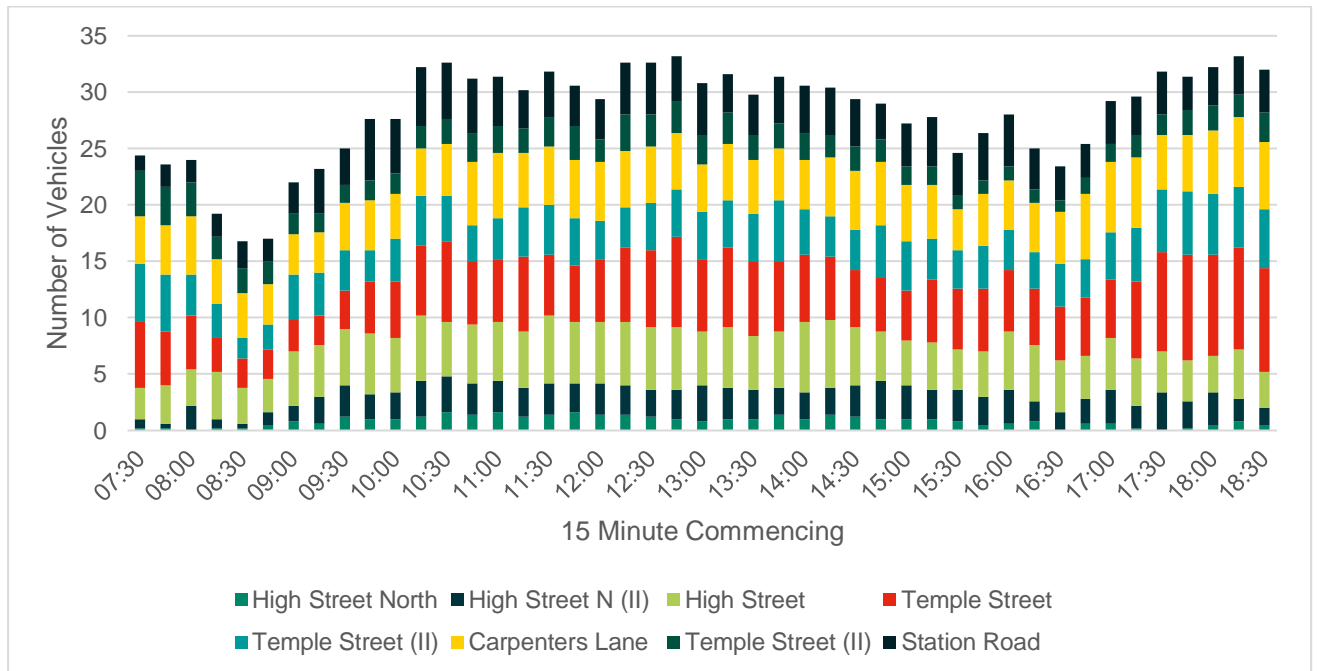


Figure 3-17: Keynsham On-Street Weekend Parking Survey Summary (05.11.22-06.11.22)

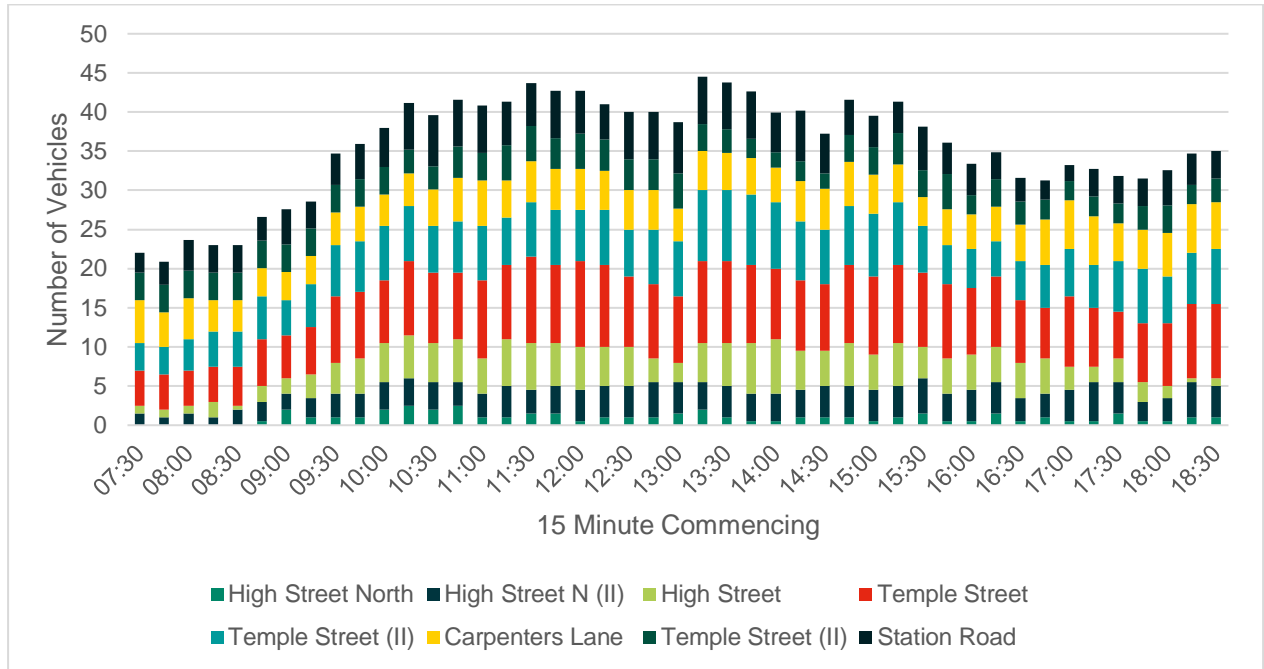


Figure 3-18: Keynsham On-Street Parking Duration of Stay – Average Weekday

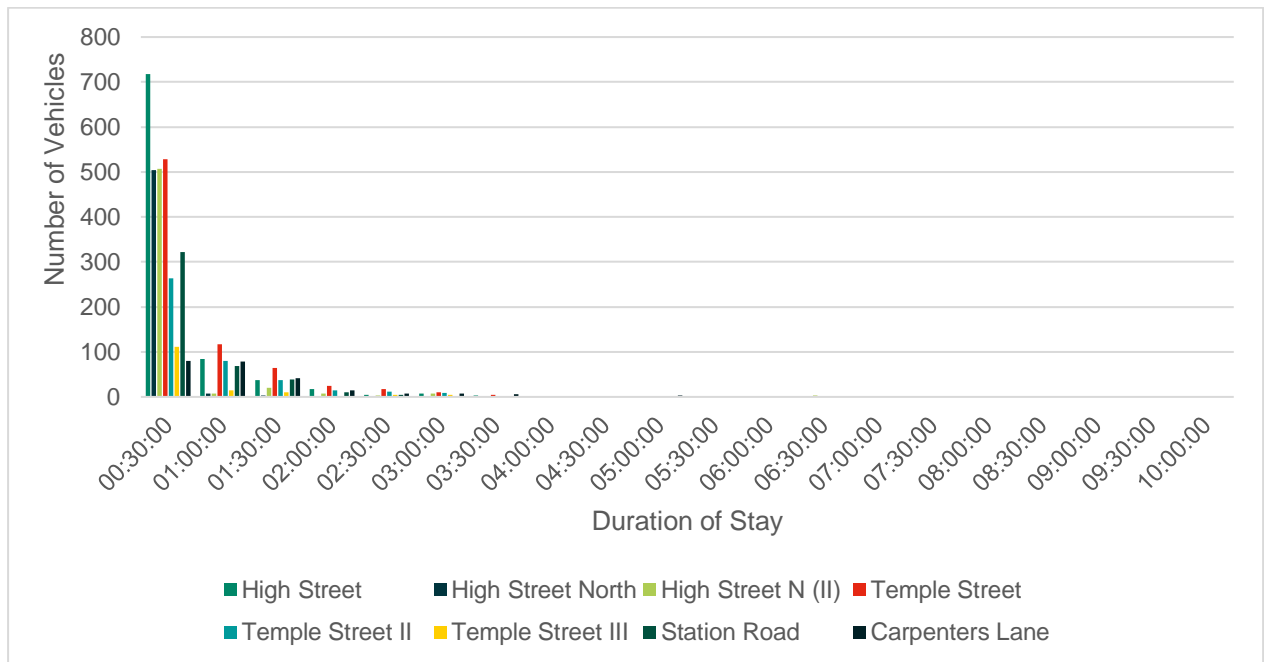
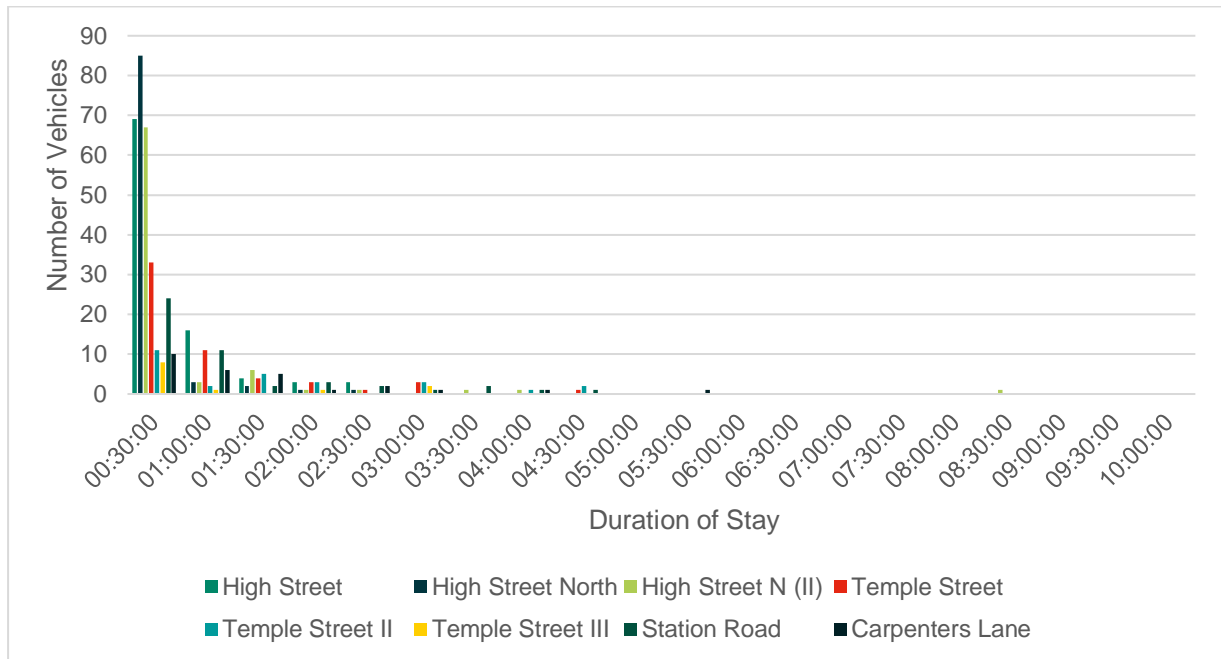


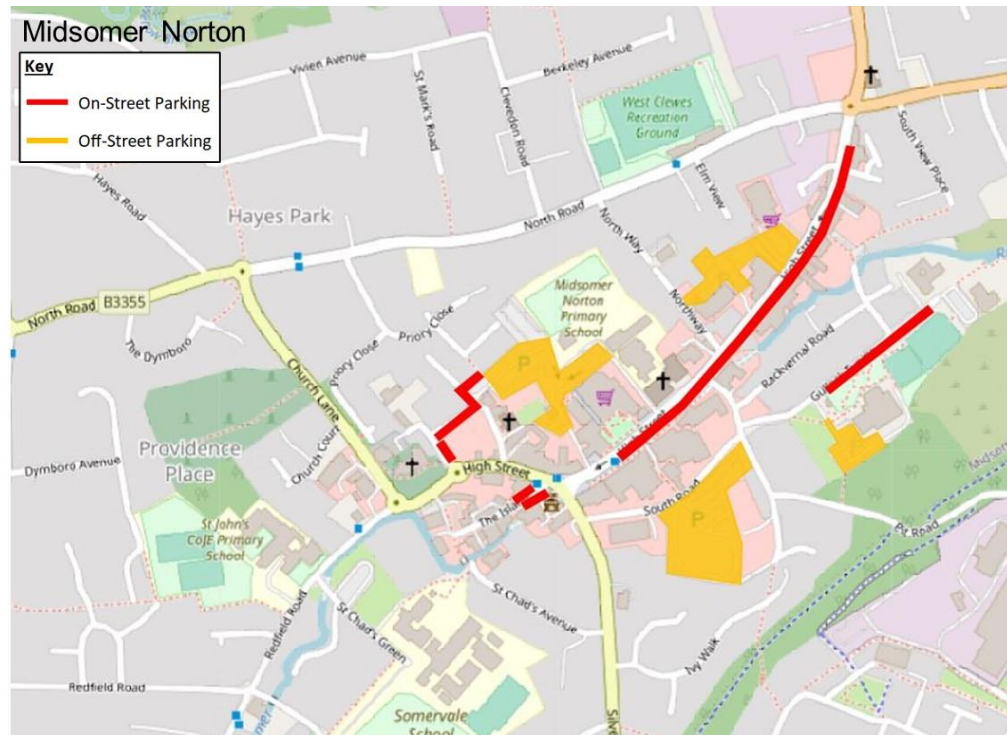
Figure 3-19: Keynsham On-Street Parking Duration of Stay – Average Weekend



Midsomer Norton

3.5.8 The car park survey locations in Midsomer Norton are shown in **Figure 3-20**. This includes six town centre car parks and five on-street parking locations.

Figure 3-20: Car Park Survey Locations in Midsomer Norton



3.5.9 The survey results for the on-street locations show that:

- The High Street has the highest average percentage occupancy of the on-street parking areas, at 67% capacity on a weekday, with a maximum occupancy of 81% at 10:15;

- Average weekday occupancy was 59% for both Pows Orchard and The Island;
- Gullock Tynning has an average of 41%;
- Church Square has an average of 35% occupancy, and
- None of the on-street parking areas exceeded capacity at any time of day.

3.5.10 For the off-street car parks, the results show that:

- The Dragonfly Leisure Centre has the highest average percentage occupancy at 68% on a weekday, with a maximum peak of 102% recorded at 17:45. This reflects the high level of usage of the leisure centre and the large catchment area with people travelling from across the Somer Valley and the wider area to use the facilities;
- Average weekday occupancy at the South Road car park was 51%;
- The remaining car parks had average weekday occupancies below 50%, indicating a lower level of demand; and
- None of the car parks, with the exception of the Dragonfly Leisure Centre, exceed their capacity.

3.5.11 The duration of stay for the off-street car parks is shown on **Figure 3-21** and **Figure 3-22** for a weekday and Saturday respectively. This highlights that during the week, parking is predominantly at Sainsbury's and Lidl, with stays under 30 minutes. Parking at the Dragonfly Leisure Centre is mainly between 1-2 hours. In general people are parking for short periods of time within the Midsomer Norton car parks, i.e., less than two hours.

Figure 3-21: Midsomer Norton Duration of Stay - Average Weekday

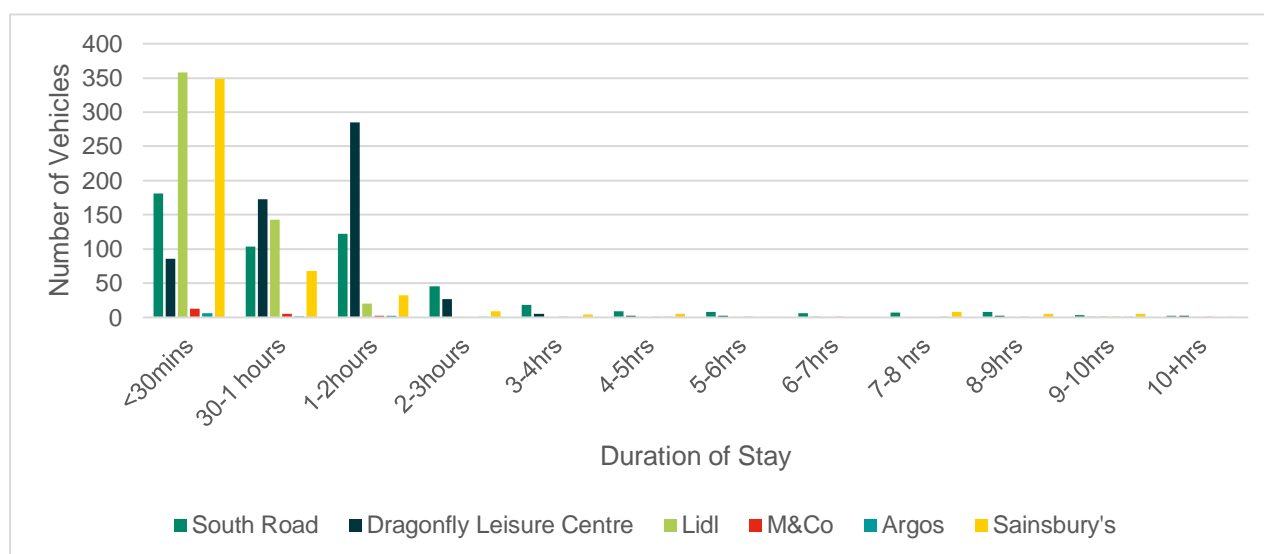
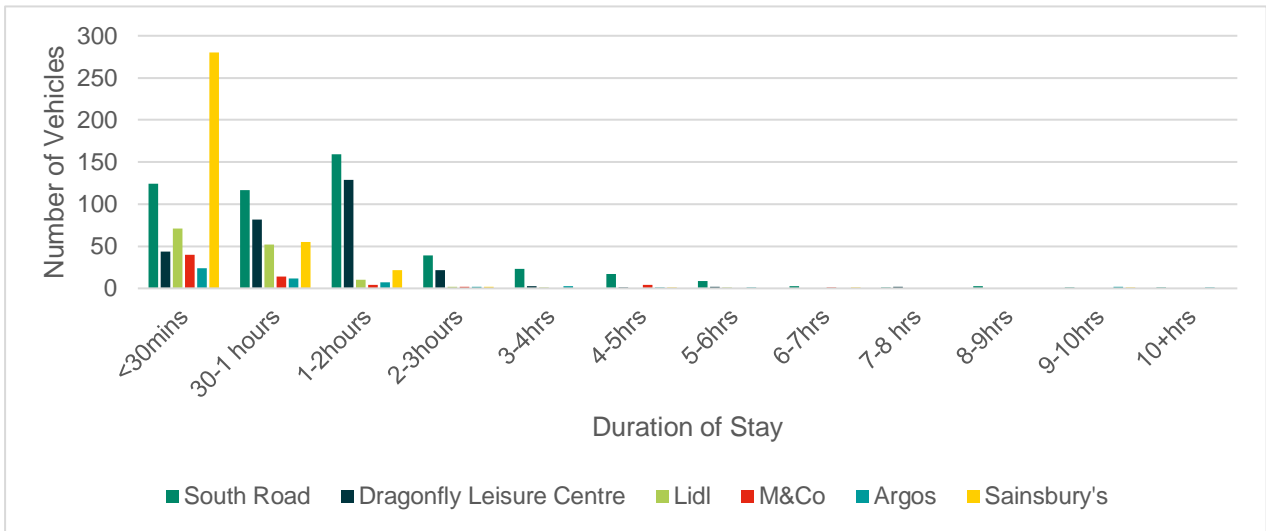
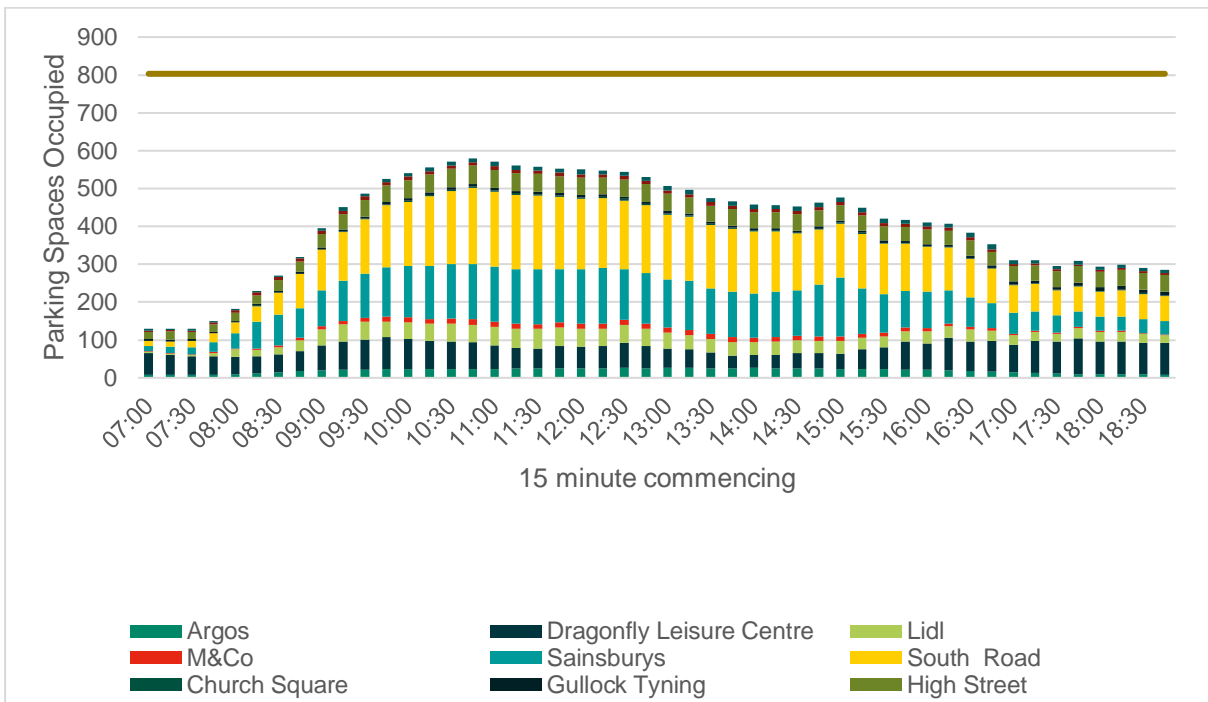


Figure 3-22: Midsomer Norton Duration of Stay - Saturday



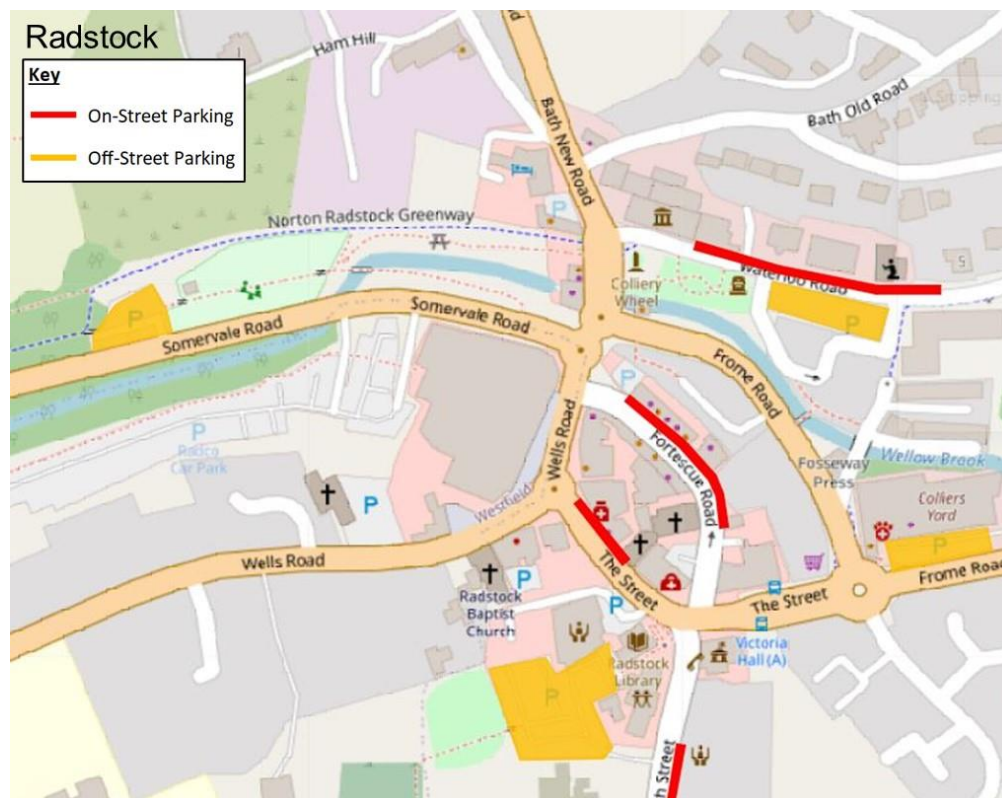
3.5.12 In summary, **Figure 3-23** presents the level of occupancy of parking spaces on an average weekday (0700-1900) in Midsomer Norton, this shows that public car parks are well used by fall comfortably within the total capacity available (803 spaces). The data shows South Road and Sainsbury's are particularly well used.

Figure 3-23: Midsomer Norton Public Parking Space Occupancy



Radstock

3.5.13 The car park survey locations in Radstock are shown in **Figure 3-24**. This covered three town centre car parks and four on-street parking locations.

Figure 3-24: Car Park Surveys Locations in Radstock

3.5.14 The results of the Radstock on-street parking survey show that:

- Church Street has the highest average percentage occupancy, at 88% on a weekday.
- Church Street is regularly observed to be over capacity, with a peak at 123% at 15:15.
- The other parking areas operate within capacity, generally below 80% occupancy.

3.5.15 For the off-street car parks, the results show that:

- Waterloo Road Car Park has the highest average percentage occupancy of the off-street car parks, at 68% capacity on a weekday, with a maximum occupancy of 84% between 13:15-13:45;
- Average occupancy for the Somervale Road / Tom Huyton Play Park was 41%, with a peak of 78% at 10:30;
- Average occupancy for the Church Street car park was 37%, with a peak of 63% occupancy at 15:15;
- The peak demand times varied across all three car parks and do not align with normal network peak hours; and
- None of the car parks exceeded capacity at any time of day.

3.5.16 The duration of stay for the off-street car parks is shown on **Figure 3-25** and **Figure 3-26** for a weekday and Saturday respectively. This highlights that during the week, parking is predominantly at Church Street Car Park, and the vehicles park for less than 30 minutes. On Saturdays, parking is more evenly spread across the three car parks, but most parking is still for less than 30 minutes. There are however more parking for 1-2 hours on a Saturday at Somervale Road and Waterloo Road Car Parks, compared to during the week.

Figure 3-25: Radstock Duration of Stay - Average Weekday

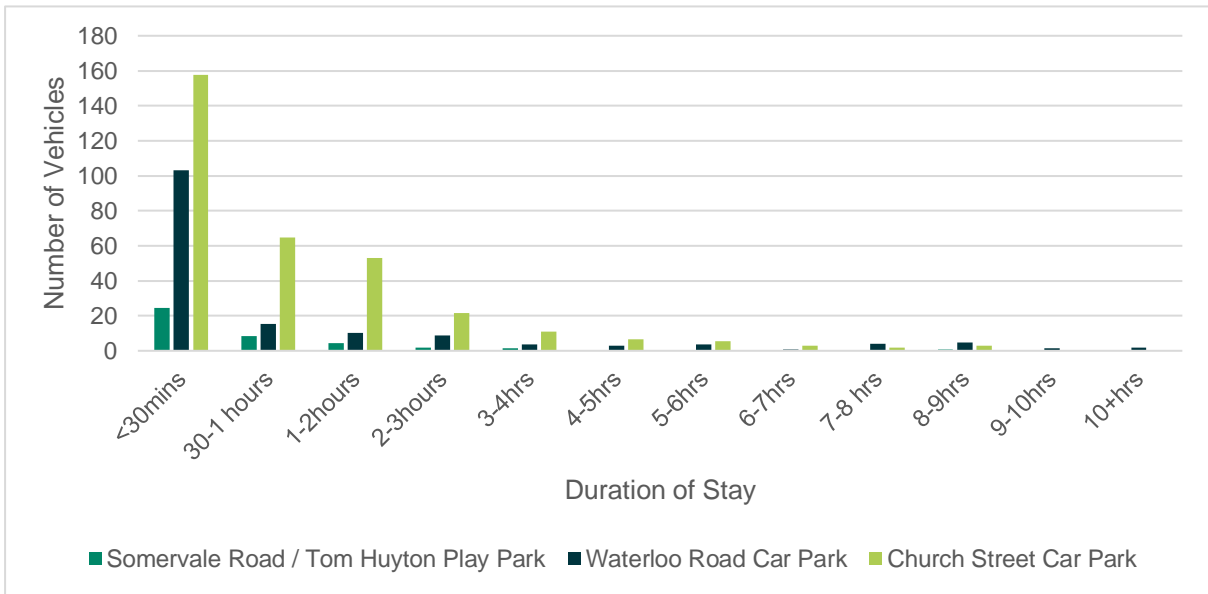
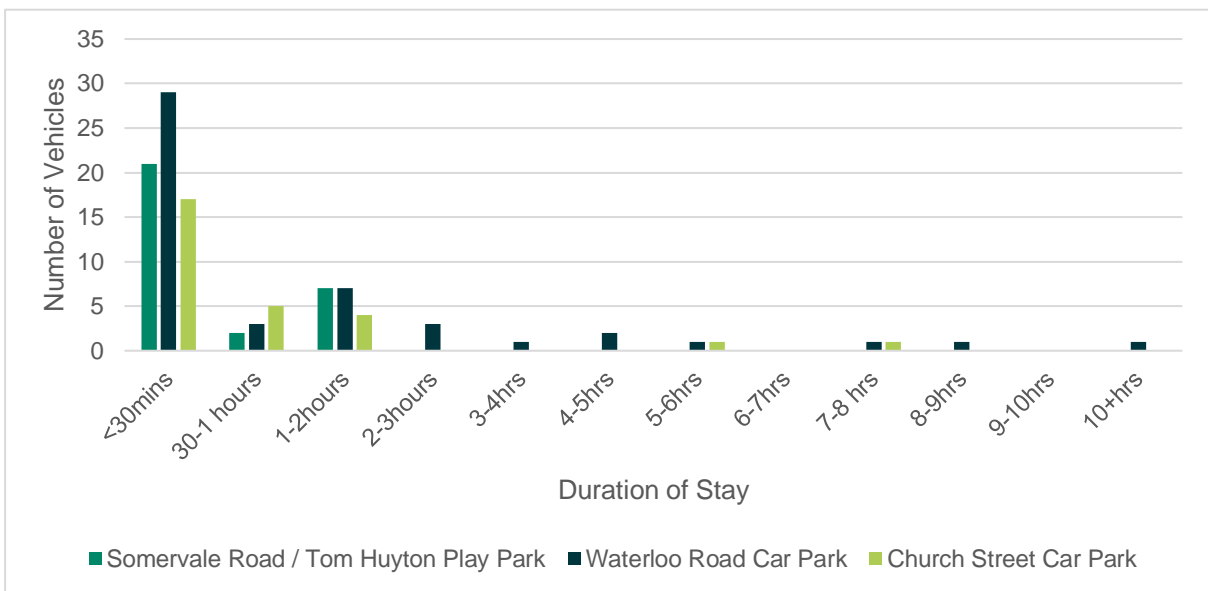


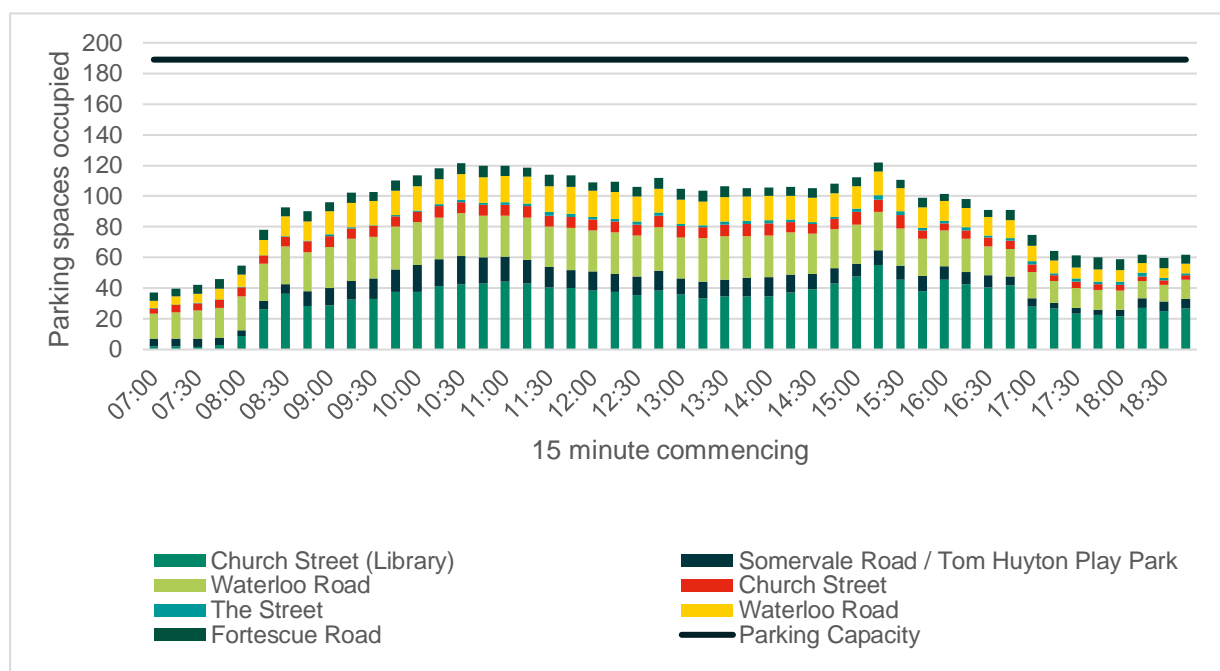
Figure 3-26: Radstock Duration of Stay - Saturday



3.5.17 **Figure 3-27** presents the level of occupancy of parking spaces on an average weekday (0700-1900) in Radstock, this shows again that there is spare capacity available, with a maximum of 122 spaces occupied out of a total 189 spaces at 15:15 (65%). The data shows that Church Street (Library) and Waterloo Road car parks are particularly well used.

3.5.18 The data for a Saturday shows a similar level of occupancy, although the peak is slightly higher, with 144 spaces occupied out of a total of 189 at 11:15 (76%).

Figure 3-27: Radstock Public Parking Space Occupancy

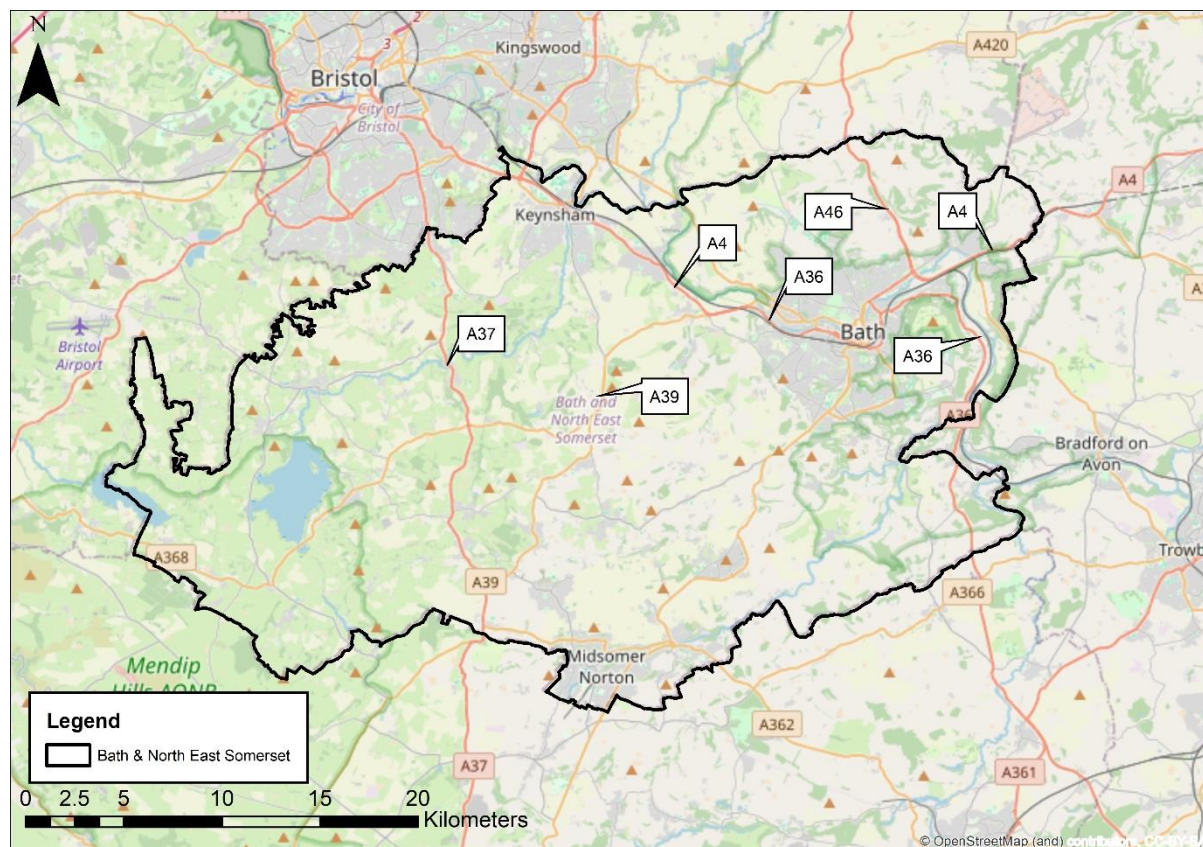


3.6 Highway Network

3.6.1 The strategic highway links in Bath and North East Somerset are illustrated in **Figure 3-28** and are outlined below:

- A4 – runs between Bristol and Chippenham, providing a key route into the district and provides connections to Keynsham and Bath;
- A4174 Bristol Ring Road - provides a connection between the A4 at Hicks Gate and east and north Bristol.
- A36 – runs between Southampton and Bath, providing connections to Salisbury and Warminster;
- A37 – runs between Dorchester and Bristol, providing connections to Yeovil, Ilchester and Shepton Mallet;
- A39 – runs between Falmouth and Bristol, providing connections to Wells, Glastonbury, Bridgwater, Minehead, Barnstaple and Truro;
- A46 – runs between Bath and Cheltenham, providing connections to M4 Junction 18 and Stroud;
- A367 – runs between the A37 (north of Shepton Mallet) and Bath City Centre providing a key route to/from the Somer Valley; and
- A368 – runs between the A39 and A371.

Figure 3-28: Local Highway Network



3.6.2 There are no motorways that run through the district. The closest motorways are the M4 and M32 to the north and the M5 to the west, which are managed by National Highways. B&NES is the highway authority for all of the public highway within the district, excluding parts of the A36 and A46 which are trunk roads managed by National Highways.

Existing Highway Conditions

3.6.3 Validated Vissim models have been built for the four growth areas to represent the operation of the existing highway network, and will be used for future options testing. Average speed outputs from a run of these models have been used to visually represent operation of the existing highway network within the B&NES district. This effectively shows where there is congestion at junctions, and the extent of that congestion. This section illustrates the average speed of vehicles on the highway network in the four broad growth locations of the Hicks Gate area, Keynsham and Saltford, Somer Valley and Whitchurch Village.

Hicks Gate Area

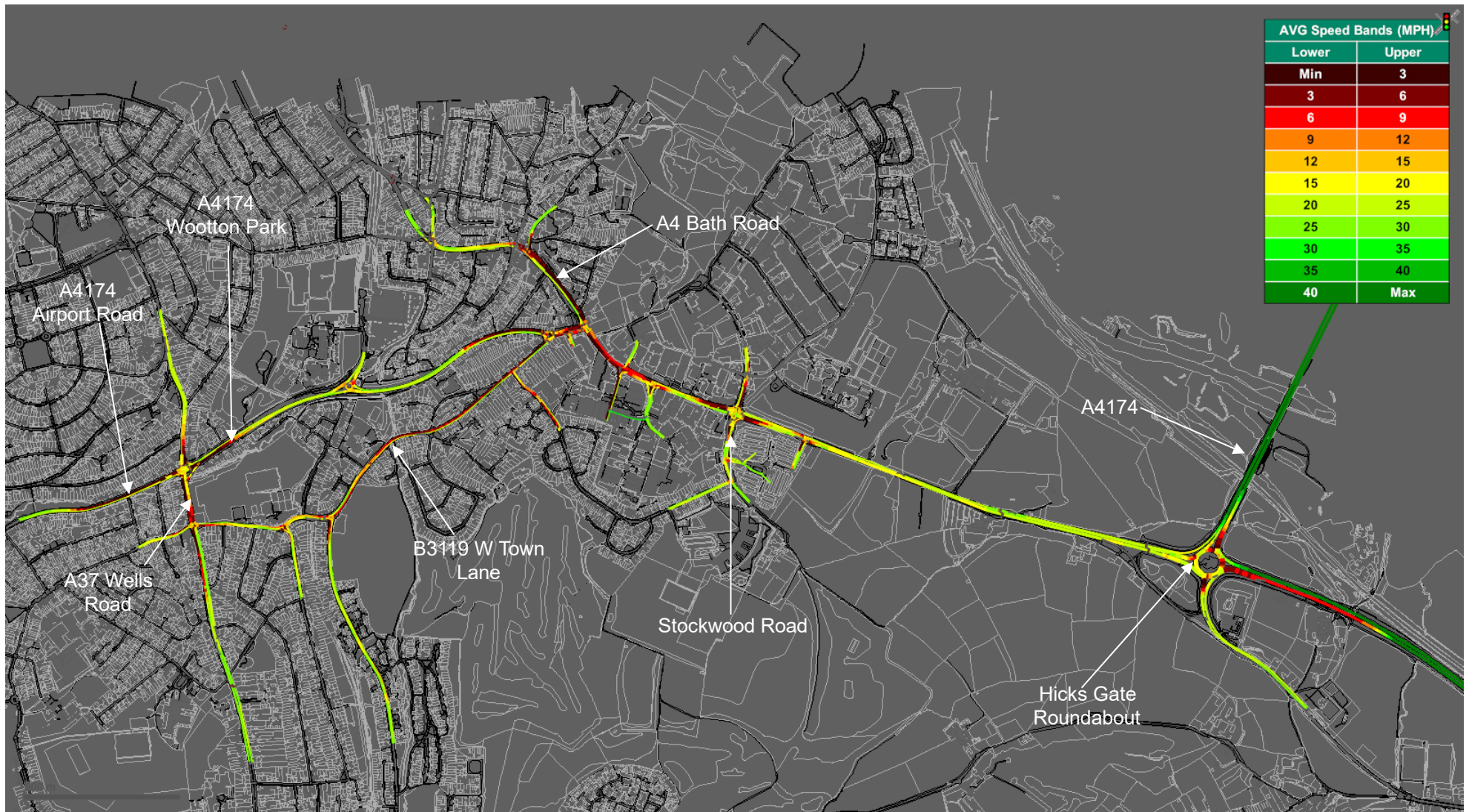
3.6.4 **Figure 3-29** shows the hotspots for congestion due to traffic volumes exceeding the junction’s capacity in the AM peak hour in the Hicks Gate area.

Figure 3-29: Hicks Gate Area Traffic Conditions (Average Speed) - AM



- 3.6.5 In terms of the Hicks Gate area, Figure 3-29 shows the highway conditions and the links which experience congestion in the AM peak hour. The A4 Bath Road from the A4 / A4174 / W Town Link junction and the A4 Bath Road / Emery Road / Stockwood Road junction experience significant congestion .
- 3.6.6 The A37 Wells Road / A4174 Airport Road / A4174 Wootton Park junction experiences significant congestion on the eastern (Airport Road) and western (Wootton Park) arms. The A4 Bath Road / A4174 / W Town Link junction experiences congestion on all arms with an average speed of 3mph.
- 3.6.7 The B3119 W Town Link experiences congestion in the AM peak hour in the northbound direction with an average speed of up to 3mph.
- 3.6.8 **Figure 3-30** shows the operation of the highway network in the Hicks Gate area accounting for PM peak hour flows.

Figure 3-30: Hicks Gate Area Traffic Conditions (Average Speed) - PM



- 3.6.9 In the PM peak hour, there is a similar pattern of traffic congestion to the AM peak hour. Movements towards Hicks Gate roundabout along the A4 experiences congestion with an average speed of 3-9 mph. There is also congestion along B3119 W Town Lane in the PM peak hour.
- 3.6.10 The Wells Road / Airport Road / Wootton Park and A4 Bath Road from the A4 / A4174 / W Town Link junctions experience significant congestion in the PM peak hour. These junctions therefore show excessive volumes of traffic in the AM and PM peak hours.

Keynsham

- 3.6.11 **Figure 3-31** presents the average speed of the highway network in the Keynsham area for AM peak hour. As Figure 3-31 shows, congestions occurs on both strategic routes and residential roads in Keynsham.

Figure 3-31: Keynsham Traffic Conditions (Average Speed) – AM



- 3.6.12 In terms of Keynsham, Figure 3-31 shows the highway conditions and the links which experience congestion in the AM peak hour. There are fewer links in Keynsham experiencing congestion in the AM peak hour in comparison to the Hicks Gate area. There is significant congestion along A4175 Station Road from the Bristol Road/High Street roundabout in Keynsham. Wellsway has a 20mph speed limit in place and therefore, even though the figure may imply congestion at this location, the yellow lines indicate that vehicles are travelled at a speed close to the speed limit .
- 3.6.13 There is congestion from all arms at the Broadmead roundabout in the AM peak hour. This is also significant congestion present at the B3116 Bath Hill / B3116 High Steet / Temple Street Junction.
- 3.6.14 **Figure 3-32** shows the congestion on the highway network in the Keynsham area in the PM peak hour.

Figure 3-32: Keynsham Traffic Conditions (Average Speed) - PM



- 3.6.15 In the PM peak hour, the hotspots for congestion are distributed similarly to the AM peak hour in Keynsham. However, the B3116 Bath Hill is shown to be operating with a higher average speed in the PM hours.
- 3.6.16 Movements along A4175 Station Road show average speeds of less than 15mph. The average speed along Wellsway and the A4 towards Salford is consistent with the AM peak.

Somer Valley

- 3.6.17 **Figure 3-33** shows the operation of the highway network in the Somer Valley accounting for AM peak hour traffic flows. The road network is comprised of strategic and minor roads connecting the towns and villages within the Somer Valley, and Figure 3-33 shows those which experience high volumes of traffic flows in comparison to its capacity.

Figure 3-33: Somer Valley Traffic Conditions (Average Speed) - AM



- 3.6.18 In the Somer Valley, there are a number of links in the AM peak hour which experience significant congestion. The A367 / B3355 Phillis Hill / B3355 Northmead junction features high volumes of traffic flows in particular on the southern arm (B3355 Northmead).
- 3.6.19 There is also congestion present on the A362 Somervale Road into Radstock with an average speed of up to 9mph. There is significant congestion on the ring road around Radstock centre (A362 / The St) in the AM peak hour.
- 3.6.20 **Figure 3-34** shows the average vehicle speed in the Somer Valley accounting for PM peak hour traffic flows.

Figure 3-34: Somer Valley Traffic Conditions (Average Speed) - PM



- 3.6.21 In terms of the PM peak hour in the Somer Valley, there is a similar distribution of congestion in comparison to the AM peak hour. Like the AM peak hour, A367 / B3355 Phillis Hill / B3355 Northmead junction features high volumes of traffic flows in particular on the southern arm (B3355 Northmead).
- 3.6.22 In the PM peak hour, the A367 north of Radstock experiences congestion in the southbound direction. There is also congestion present on the A362 Somervale Road into Radstock with an average speed of up to 9mph. There is significant congestion on the ring road around Radstock centre (A362 / The St) in the PM peak hour.

Whitchurch Village

- 3.6.23 **Figure 3-35** shows the average vehicle speed in the Whitchurch area in the AM peak hour. A37 Wells Road runs through Whitchurch Village. Several residential roads connect to A37 Wells Road, with rat-running an issue in Whitchurch Village.

Figure 3-35: Whitchurch Village Traffic Conditions (Average Speed) - AM



- 3.6.24 In the AM peak hour in Whitchurch Village, there is significant congestion on A37 Wells Road to the north of Staunton Lane.
- 3.6.25 There is significant congestion at junctions along the A37, including the A37/Ridgeway Lane junction and the A37 / Staunton Lane junction with average speeds of around 3mph. The congestion occurs on the minor roads leading onto the A37.
- 3.6.26 **Figure 3-36** shows the operation of the highway network in the Whitchurch Village area accounting for PM peak hour traffic flows.

Figure 3-36: Whitchurch Village Traffic Conditions (Average Speed) - PM

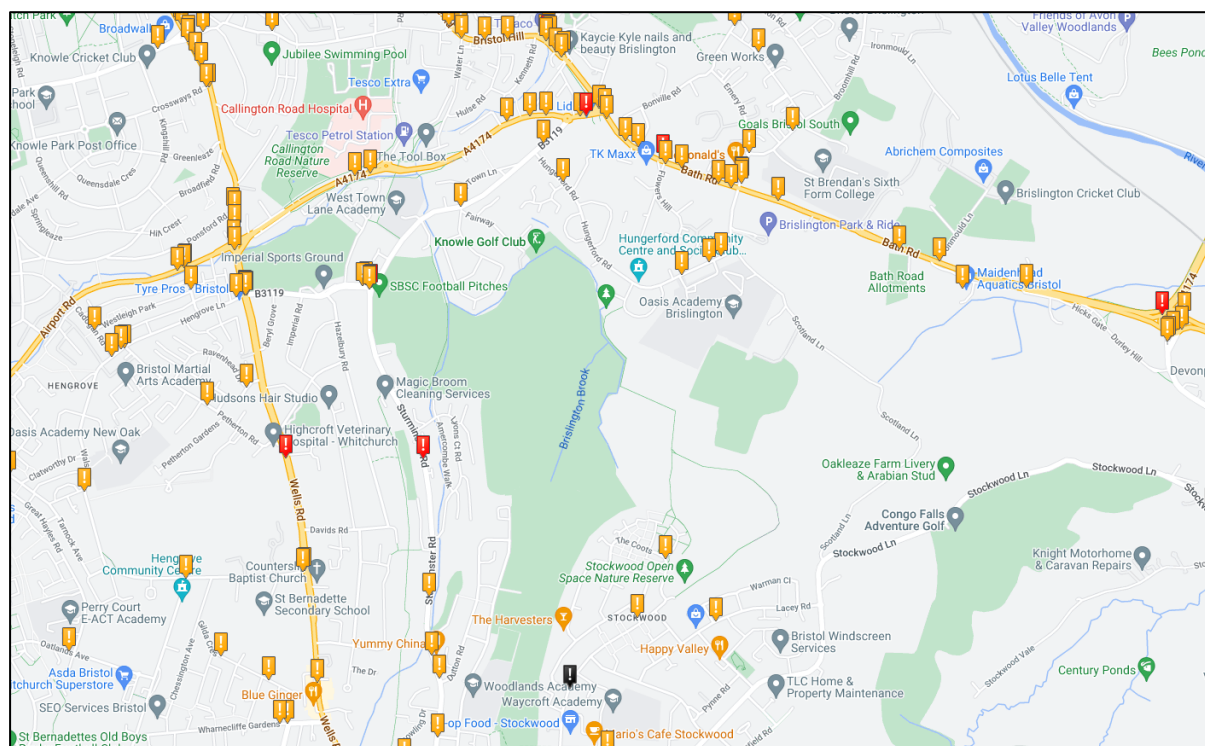


- 3.6.27 In the PM peak hour, there are a greater number of links in Whitchurch Village which experience congestion, in comparison to the AM peak hour. Ridgeway Lane experiences lower average vehicle speed in the PM peak hour compared to the AM peak hour. This suggests that vehicles are rat running along Ridgeway to avoid congestion on the A37.
- 3.6.28 The A37 / Ridgeway Lane, A37 / Whitchurch Lane and A37 / Stockwood Road experience significant congestion in the PM peak hour.
- 3.6.29 There is significant congestion on Stockwood Lane for westerly movements onto the A37. Similar to the AM peak hour, there is limited congestion on the A37 to the south of Whitchurch Village.

3.7 Road Safety

3.7.1 A review of Personal Injury Collision (PIC) data has been obtained from the ‘Crashmap’ online resource to determine whether there are any locations on the local highway network with poor collision records. Crashmap has been used to identify road safety records in the district due to the large extent of the study area. Extracts showing the PICs recorded in the study area during the most recent three-year period at the time of writing, from January 2019 to December 2021, are set out below for key areas in the District mainly focusing on the routes between growth areas. Exclamation marks denote collision locations, with orange being a slight collision, red indicating a serious collision, and black meaning a fatal collision.

Figure 3-37: PICs identified along A37, A4174 and A4

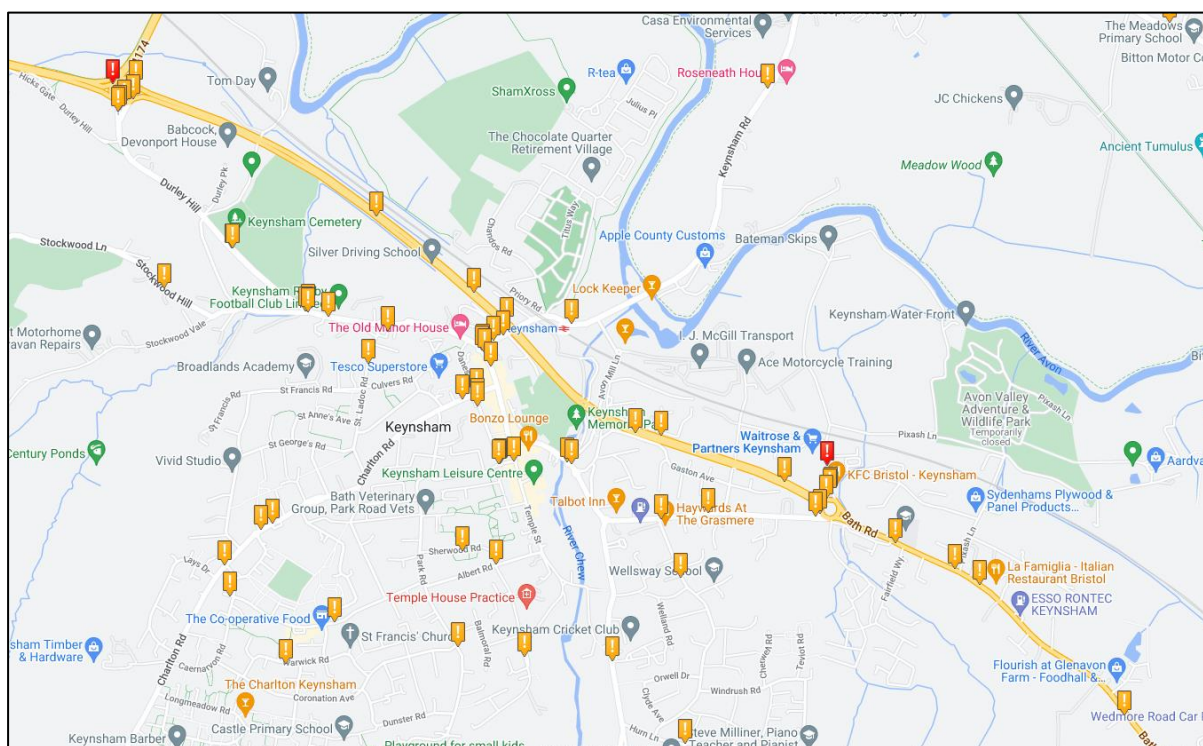


- 3.7.2 Figure 3-37 identifies clusters of incidents at the following locations:
- A4147 / A4 junction (three slight incidents);
 - A37 / B3119 / Hengrove junction (six slight incidents);
 - B3119 / Sturminster Road junction (one serious incident and five slight incidents);
 - Hicks Gate Roundabout (one serious incident and five slight incidents);
 - Emery Road (three slight incidents);
 - A4 Bath Road between West Town Lane and Hicks Gate Roundabout (eight slight incidents); and

- A4174 between A37 and A4 (one serious incident and six slight incidents).

3.7.3 A fatal incident is identified at the Stockwood Road / Harrington Road junction.

Figure 3-38: PICs identified in Keynsham

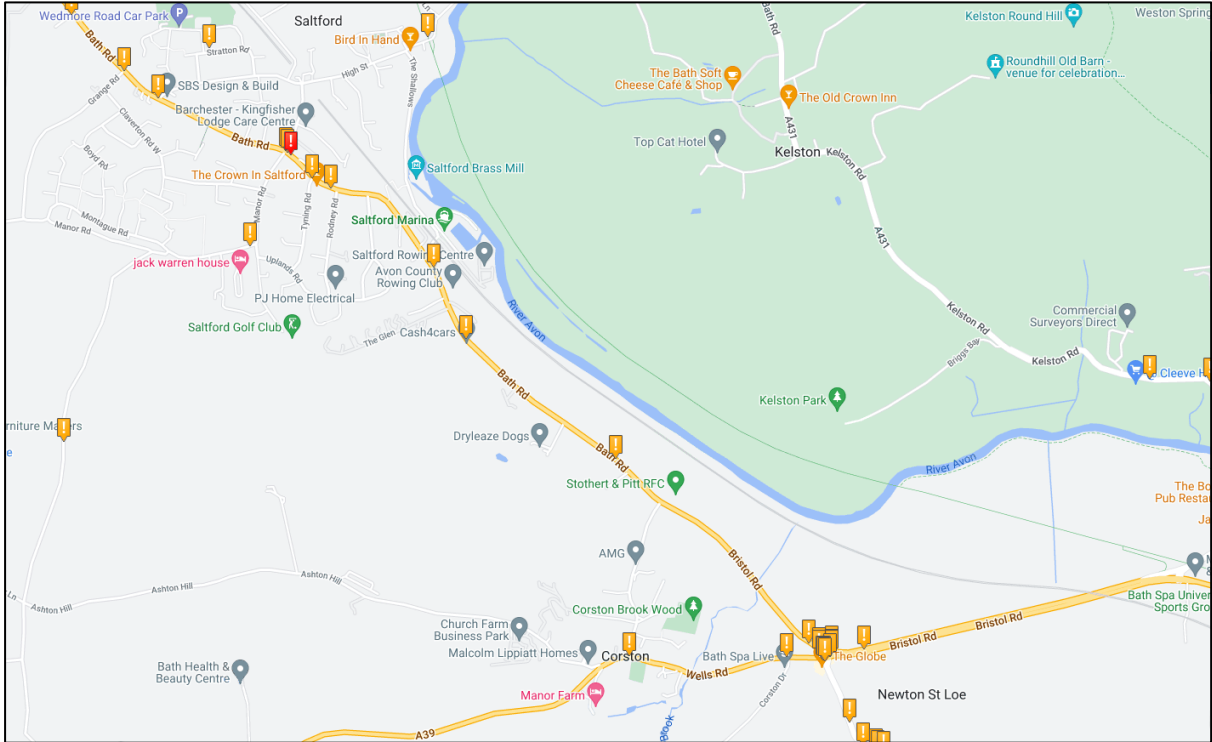


3.7.4 Figure 3-38 identifies clusters of incidents at the following locations:

- Bristol Road / Station Road mini roundabout (three slight incidents)
- Broadmead Roundabout (five slight incidents)
- Ashton Way / Rock Road mini-roundabout (three slight incidents)
- A4 between Hicks Gate Roundabout and Broadmead Roundabout (six slight incidents)

3.7.5 The clusters identified do not indicate a road safety issue in the area.

Figure 3-39: PICs identified along A4 South of Keynsham

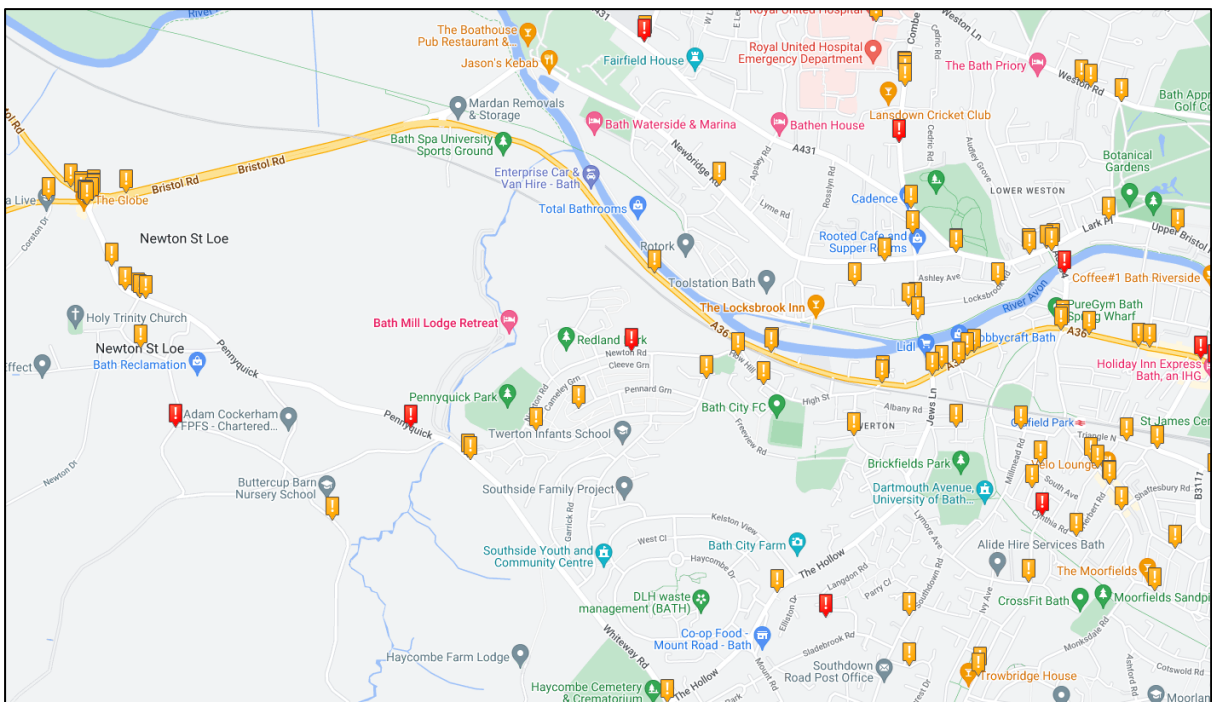


3.7.6 Figure 3-39 identifies clusters of incidents at the following locations:

- A4 Bristol Road / A39 Wells Road Roundabout (10 slight incidents)
- A4 Bath Road between Wedmore Road Car Park and A4 Bristol Road / A39 Wells Road Roundabout (one serious incident and 10 slight incidents)

3.7.7 The cluster identified at the A4 Bristol Road / A39 Wells Road Roundabout equates to approximately three collisions at this location per year which suggests that there is a potential road safety issue at this location. The causes of these incidents may need to be investigated to determine if improvements to this junction would improve safety for drivers.

Figure 3-40: PICs identified along A36 West of Bath

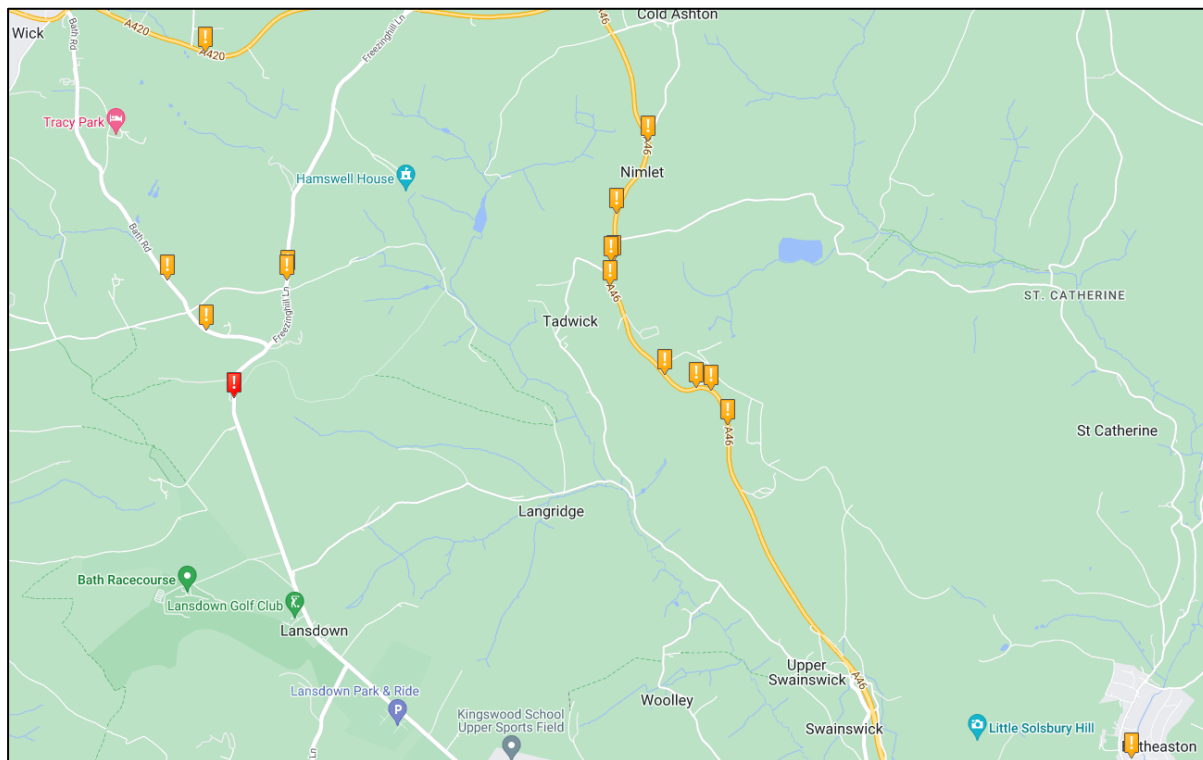


3.7.8 Figure 3-40 identifies clusters of incidents at the following locations:

- Pennyquick (one serious incident and five slight incidents)
- A36 opposite Mero Retail Park (four slight incidents)

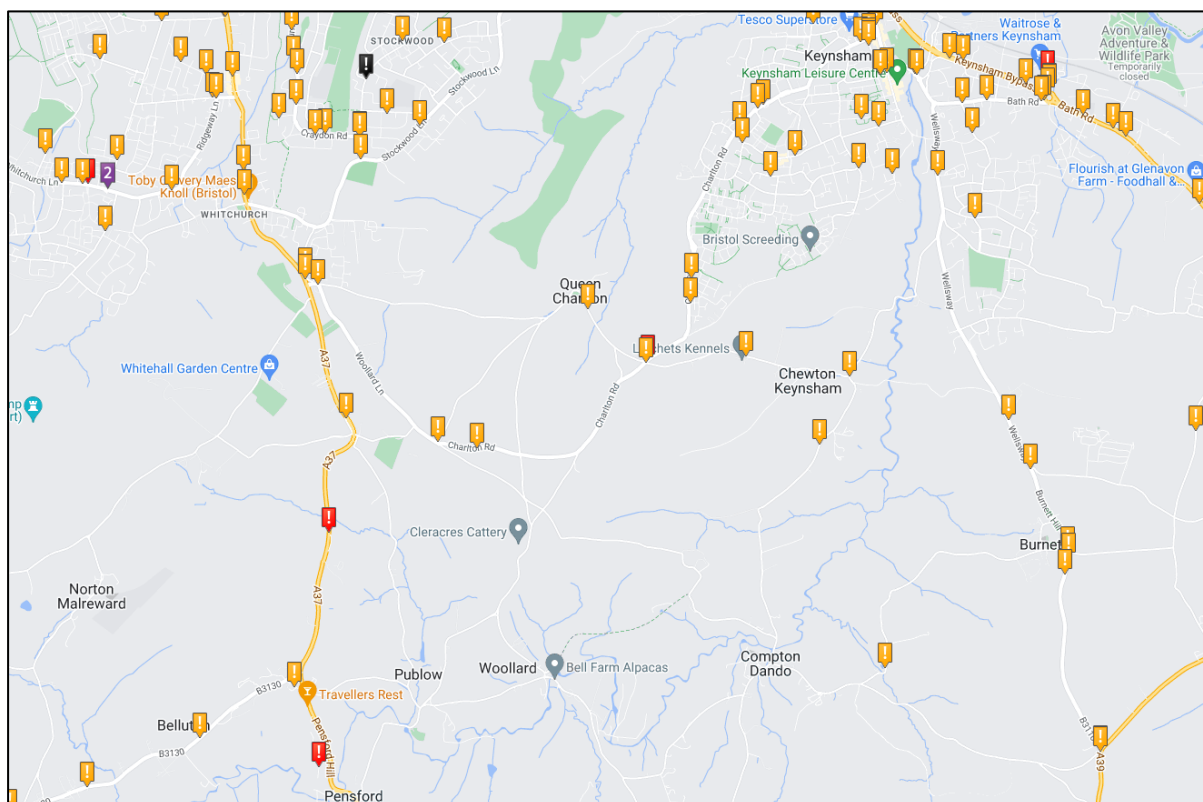
3.7.9 The clusters identified do not indicate a road safety issue in the area.

Figure 3-41: PICs identified along A46 North of Bath



3.7.10 Figure 3-41 indicates that during the three-year period, nine slight incidents were recorded on the A46 north of Bath. However, these incidents did not occur at the same location of the A46 and therefore it does not suggest a road safety issue that is caused by highway design.

Figure 3-42: PICs identified in Whitchurch Village



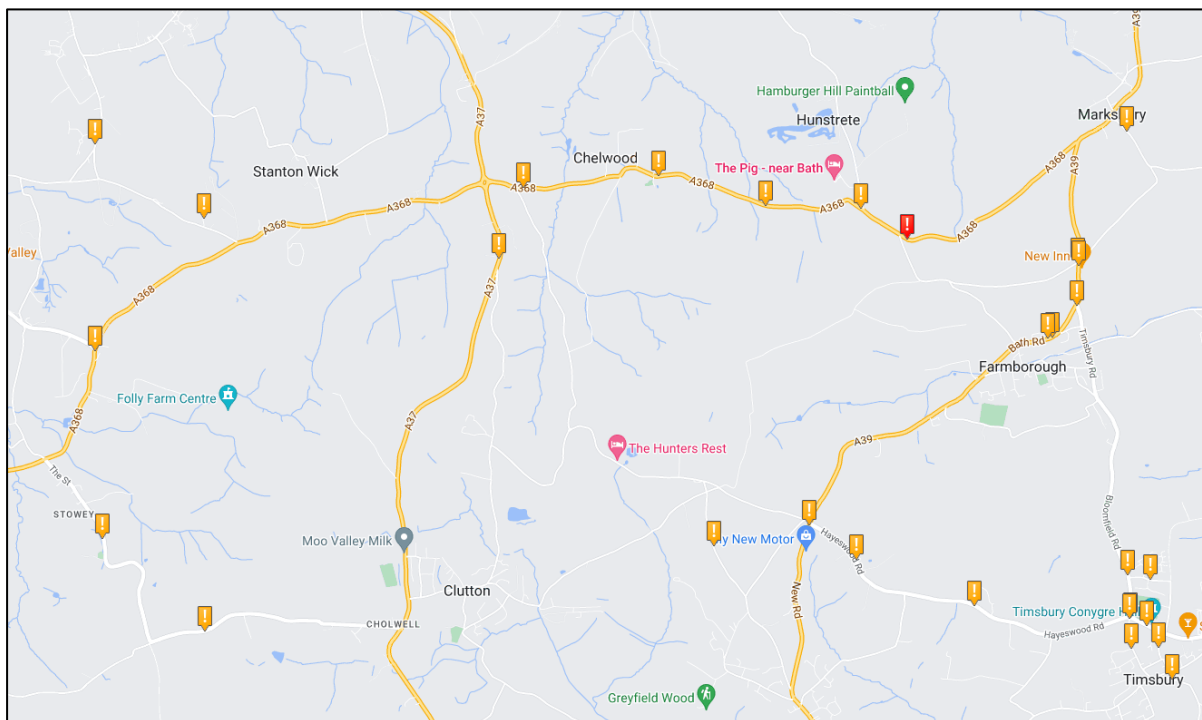
3.7.11 Figure 3-42 identifies clusters of incidents at the following locations:

- Whitchurch Lane (one serious incident and five slight incidents)
- Craydon Road / Stockwood Road / Goslet Road junction (two slight incidents)
- Ridgeway Lane (two slight incidents)
- Charlton Road (one serious incident and one slight incident)

3.7.12 One fatal incident is identified on Stockwood Road. This incident occurred in 2019 and involved one vehicle with one casualty.

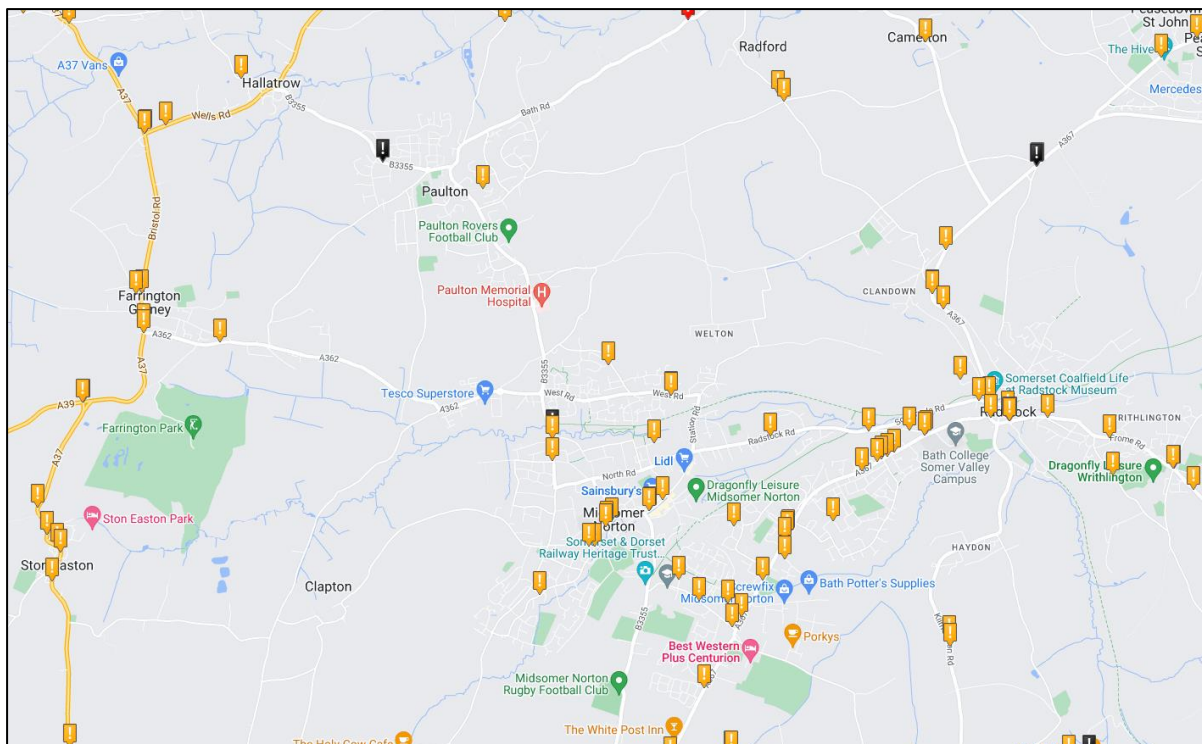
3.7.13 The clusters identified do not indicate a road safety issue in the area.

Figure 3-43: PICs identified on A368 and A39



3.7.14 Figure 3-43 does not identify any significant clusters of incidents on the A368 and A39 during the three year period.

Figure 3-44: PICs identified in Somer Valley



3.7.15 Figure 3-44 identifies a cluster of incidents at the following locations:

- A367 between The Dring and Cedar Terrace (five slight incidents)
- The St / Frome Road / Nelson Ward Drive junction (three slight incidents)
- Welton Road (three slight incidents)

- Redfield Road (three slight incidents)
 - High Street (three slight incidents)
 - A37 Ston Easton (six slight incidents)
- 3.7.16 Four fatal incidents have been identified in the Somer Valley area. One fatal incident was located on the B3355 to the north-west of Paulton which involved two vehicles. A second fatal incident was located on the A367 to the north of Radstock which involved two vehicles. A third fatal incident on the B3355 in Midsomer Norton which involved two vehicles. A fourth fatal incident has been identified on the B3139 in Kilmersdon, involving one vehicle. These fatal incidents occurred in different locations and therefore it does not identify a particular road safety issue.

Summary

- 3.7.17 The figures above indicate that there have been a number of incidents on the main strategic roads in the District in the most recent three year period recorded by Crashmap.
- A4 – Collisions are spread out along the A4 with a cluster of incidents at the A4 Bristol Road / A39 Wells Road Roundabout.
 - A4174 Bristol Ring Road – The PIC data indicate seven incidents have occurred on the A4174 between the A37 and A4 and three incidents have occurred at the A4174 / A4 roundabout.
 - A36 – Several incidents have occurred along the A36, however there are no clusters that indicate a highway design issue.
 - A37 – Six incidents were recorded on the A37 between Whitchurch Village and Pensford. None of the incidents occurred at the same location and therefore does not indicate a highway design issue. On the A37 near Ston Easton, six slight incidents were recorded over the three-year period, however, these did not occur at the same location of road and therefore does not indicate a highway design issue.
 - A39 – No clusters of incidents were identified.
 - A46 – No clusters of incidents were identified.
 - A367 - Five incidents were recorded on the A367 between The Dring and Cedar Terrace during the three year period. None of the incidents occurred at the same location and therefore does not indicate a highway design issue.
 - A368 – No clusters of incidents were identified.
- 3.7.18 A potential road safety concern has been identified at the A4 Bristol Road / A39 Wells Road Roundabout. The cluster identified equates to approximately three collisions at this location per year which suggests that there is a potential road safety issue at this location. The causes of these incidents may need to be investigated to determine if improvements to this junction would improve safety for drivers.

4. Census Data Analysis

4.1 Introduction

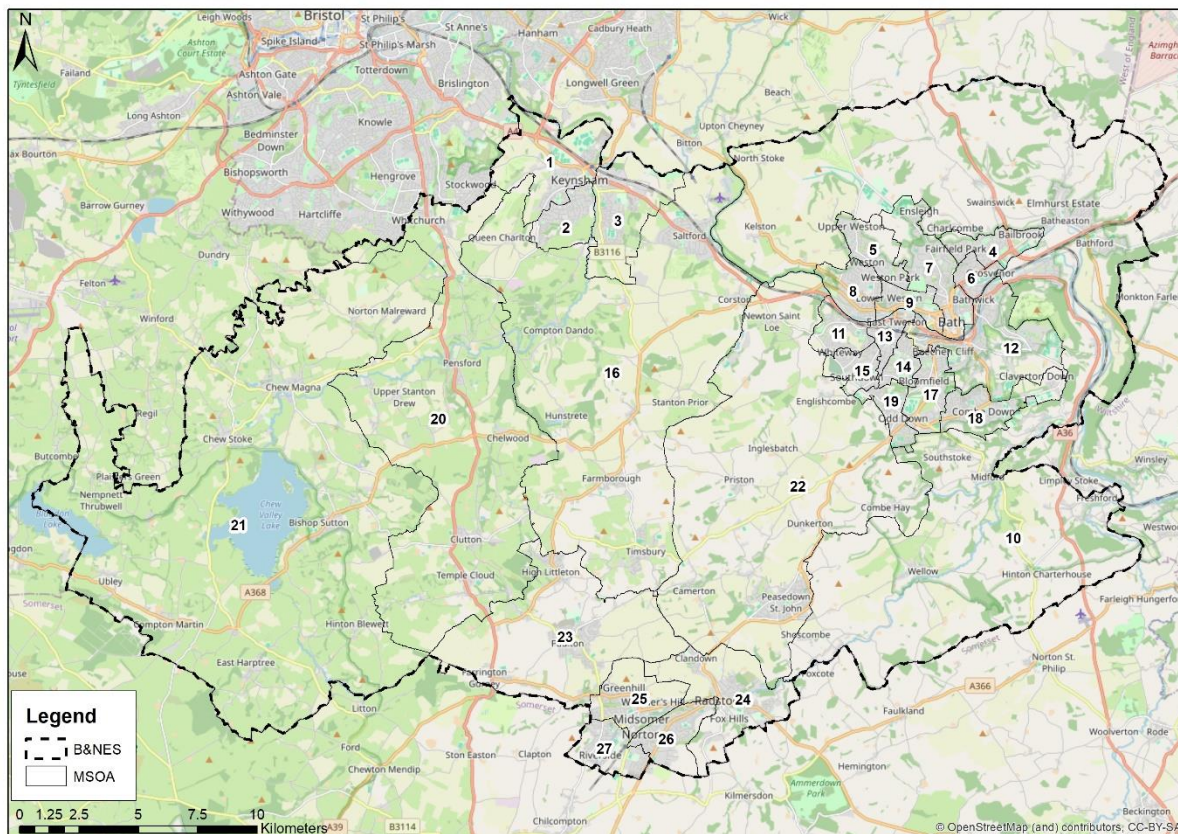
4.1.1 The 2021 Census was undertaken on 21st March 2021. Under Phase 1 of the release plans, the Office of National Statistics (ONS) released datasets in respect of the following on 8th December 2022:

- Method used to travel to work, usual residents aged 16 years and over in employment, 2021, England and Wales (Dataset ID TS061);
- Distance travelled to work, usual residents aged 16 years and over in employment, 2021, England and Wales (Dataset ID TS058); and
- The number of cars or vans available to members of households for England and Wales (Dataset ID TS045).

4.1.2 At the outset it should be noted that the 2021 Census was undertaken during the COVID-19 pandemic at a time of change. It is a snapshot of respondents' travel behaviour at that time. The results should be interpreted with this in mind. The 2021 Census day was Sunday 21st March 2021. At this time, the restrictions from the winter 2020 lockdown were just starting to be lifted. On the 8th March 2021 schools, colleges and universities reopened, and residents could leave their homes for recreation/exercise with those within their 'bubble'. Gatherings outside the home with people outside of their 'bubble' were not permitted until 29th March 2021. In relation to work, the official guidelines at this time were that "*people should continue to work from home where they can and minimise the number of journeys they make, avoiding travel at the busiest times and busiest routes^[1]*". The general public were still apprehensive at this time to mix with other people and this, combined with the guidance to work from home where possible, will have had an impact upon the results of the 2021 Census in relation to travel to work questions. Where relevant, this section provides the responses to the 2011 Census results for the same questions.

4.1.3 The ONS uses the Middle Layer Super Output Areas (MSOA's) geographical unit. MSOA's typically consist of between 2,000 – 6,000 households and there are 27 MSOA's within the B&NES boundary which are illustrated in **Figure 4-1**.

Figure 4-1: MSOA's in the B&NES District



Method Used to Travel to Work

- 4.1.4 The Method Used to Travel to Work has been interrogated for the B&NES district and the South West Region (Cornwall, Devon, Dorset, Wiltshire, Somerset, Bristol and Gloucestershire) and compared against the results for Great Britain as a whole.

2021 Census

- 4.1.5 The responses which answered 'Work from Home' in the 2021 Census are included in the results presented in **Table 4-1**.

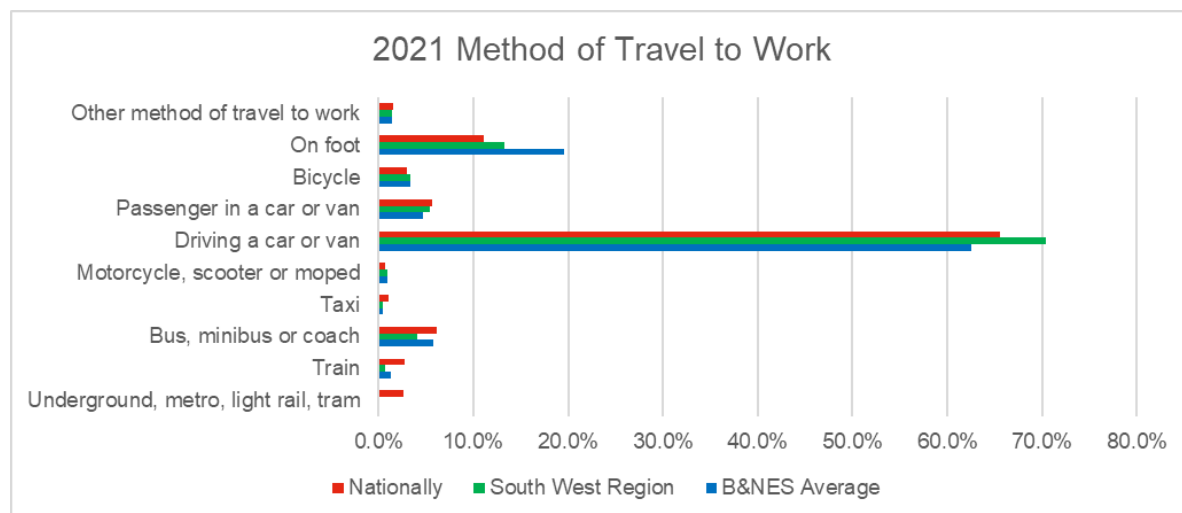
Table 4-1: 2021 Method Used to Travel to Work – With Work from Home

	Light Rail, Tram	Train	Bus, Coach	Taxi	Motorcycle	Car Driver	Car Passenger	Bicycle	On foot	Other	Work from Home
B&NES	0.1%	0.7%	3.6%	0.3%	0.6%	39.5%	3.0%	2.0%	11.4%	0.8%	38.1%
South West Region	0.0%	0.5%	2.8%	0.3%	0.6%	49.0%	3.8%	2.4%	9.2%	1.0%	30.4%
GB Nationally	1.8%%	1.9%	4.2%	0.7%	0.5%	45.1%	3.9%	2.0%	7.6%	1.0%	31.2%

4.1.6 Table 4-1 shows that shows that 38.1% of respondents in B&NES answered 'Work from Home' as compared to 30.4% on average for the South West and 31.2% for Great Britain. B&NES has a lower car driver mode share at 39.5% as compared to the results for the South West and Great Britain with 49.0% for the former and 45.1% for the latter. B&NES also has a higher proportion of respondents that travel on foot compared to GB nationally, 11.4% compared with 7.6%, respectively.

4.1.7 To understand the mode share of the responses which involved a journey, the responses which answered 'Work from Home' and 'Not in employment or aged 15 years and under' have been excluded. This is presented in **Figure 4-2** below.

Figure 4-2:2021 Method Used to Travel to Work – Comparison of B&NES, South West and GB Nationally



4.1.8 Figure 4-2 shows that the in 2021, the B&NES district has a lower car mode share as compared to both the South West region and Great Britain as a whole with 62.5% compared to 70.4% and 65.6%, respectively. However, the average result for the B&NES district as presented in Figure 4-2 masks considerable variation between the different MSOA's within B&NES. The responses for each MSOA within B&NES in 2021 are presented in **Table 4-2**.

Table 4-2: 2021 Method of Travel to Work – Without Work from Home and Not Working

MSOA		Light Rail, Tram	Train	Bus, Coach	Taxi	Motorcycle	Car Driver	Car Passenger	Bicycle	On foot	Other
1	Keynsham North	0.0%	2.4%	5.5%	0.1%	1.2%	68.4%	4.7%	1.8%	14.4%	1.3%
2	Keynsham South	0.0%	2.1%	6.0%	0.5%	1.0%	71.9%	3.8%	2.3%	11.3%	1.1%
3	Keynsham East	0.1%	1.3%	3.8%	0.3%	0.8%	74.4%	4.8%	2.7%	10.2%	1.7%
4	Larkhall, Bath	0.4%	1.3%	4.3%	0.7%	0.9%	59.2%	4.0%	5.9%	21.9%	1.5%
5	Weston, Bath	0.1%	0.9%	6.4%	0.3%	0.8%	48.3%	2.7%	5.1%	33.9%	1.5%
6	Lambridge, Bath	0.2%	1.6%	5.8%	0.5%	1.4%	41.9%	2.9%	5.8%	37.9%	1.9%
7	Lansdown, Bath	0.3%	2.6%	6.3%	0.6%	0.8%	38.3%	2.8%	4.6%	42.0%	1.9%
8	Newbridge, Bath	0.1%	0.9%	7.6%	0.5%	0.8%	45.2%	4.3%	5.5%	33.8%	1.2%
9	Kingsmead, Bath	0.3%	1.9%	8.0%	0.7%	0.8%	33.4%	2.3%	4.4%	46.9%	1.2%
10	Bathavon, Bath	0.1%	1.7%	5.0%	0.2%	1.2%	70.3%	3.3%	5.3%	11.6%	1.3%
11	Twerton, Bath	0.0%	0.8%	11.2%	0.8%	1.4%	49.6%	8.0%	3.6%	23.4%	1.2%
12	Oldfield Park, Bath	0.5%	3.8%	6.7%	0.6%	0.7%	40.9%	4.4%	5.7%	34.9%	1.9%

13	Oldfield Park West, Bath	0.1%	2.5%	6.9%	0.7%	0.8%	43.0%	4%	5.1%	34.6%	1.6%
14	Moorlands, Bath	0.1%	1.5%	7.9%	0.8%	1.1%	47.5%	5.4%	4.1%	30.3%	1.3%
15	Southdown, Bath	0.1%	1.1%	9.6%	0.4%	1.1%	60.5%	6.7%	3.7%	15.7%	1.0%
16	Farmborough	0.1%	0.3%	3.1%	0.2%	0.9%	79.8%	5.1%	2.5%	6.9%	1.0%
17	Bloomfield, Bath	0.1%	2.5%	5.4%	0.6%	0.8%	57.2%	4.7%	5.0%	22.9%	0.9%
18	Coombe Down, Bath	0.2%	1.1%	8.7%	0.6%	1.9%	57.4%	4.6%	4.1%	19.4%	2.0%
19	Odd Down, Bath	0.1%	0.7%	8.9%	0.8%	1.3%	64.4%	6.6%	2.4%	13.3%	1.6%
20	Publow, Whitchurch	0.1%	0.5%	3.0%	0.4%	1.0%	81.6%	4.2%	1.6%	6.3%	1.4%
21	Chew Valley	0.3%	0.3%	1.1%	0.3%	0.3%	84.8%	4.6%	1.3%	5.6%	1.4%
22	Peasedown	0.1%	0.5%	7.6%	0.4%	1.1%	75.4%	6.2%	1.1%	6.2%	1.4%
23	Paulton	0.0%	0.3%	2.7%	0.2%	0.7%	83.9%	4.6%	0.9%	5.3%	1.2%
24	Westfield	0.0%	0.1%	4.3%	0.2%	0.9%	79.3%	5.7%	1.4%	7.2%	0.9%
25	Midsomer Norton	0.0%	0.2%	2.6%	0.2%	0.9%	78.0%	4.7%	1.6%	10.6%	1.1%
26	Radstock	0.0%	0.1%	3.5%	0.2%	0.8%	75.8%	5.6%	1.8%	11.2%	1.0%
27	Midsomer Norton	0.0%	0.2%	2.9%	0.1%	0.7%	78.5%	6.0%	1.8%	9.0%	0.9%
B&NES Average		0.1%	1.2%	5.7%	0.4%	1.0%	62.5%	4.7%	3.4%	19.5%	1.4%

South West Region Average	0.1%	0.7%	4.1%	0.4%	0.9%	70.4%	5.4%	3.4%	13.2%	1.4%
GB National Average	2.6%	2.8%	6.1%	1.0%	0.7%	65.6%	5.7%	3.0%	11.1%	1.5%

4.1.9 The key findings from Table 4-2 are as follows:

- There is a significant variation between the method of travel to work across the different MSOA's;
- The general pattern is that the urban areas in and around Bath (e.g. MSOA's 6, 7 and 9) have a lower car driver mode share and higher walking and cycling mode share, as compared to the more rural areas in the Chew Valley and in the Somer Valley of Peasedown, Paulton and Radstock (e.g. MSOA's 21, 22, 23 and 24) where the reverse is true. MSOA 21 for the Chew Valley has the highest car mode share with 84.8%, with the MSOA for Kingsmead in Bath having the lowest car mode share with 33.4%;
- The level of bus use is in direct correlation with the availability of bus services to where people want to get to. The highest bus mode share was in Twerton, Bath with 11.2% and the lowest bus mode share was in the Chew Valley with 1.1%; and
- Rail travel is highest in MSOAs that contain rail stations. The highest rail mode share was 3.8% for the MSOA of Oldfield Park which has a rail station in it.

4.1.10 Given the high proportion of those working from home / hybrid working at the time of the Census, the pandemic restrictions on normal life in place and preferences for personal travel, the results are unlikely to be representative of pre or post-pandemic times.

2011 Census

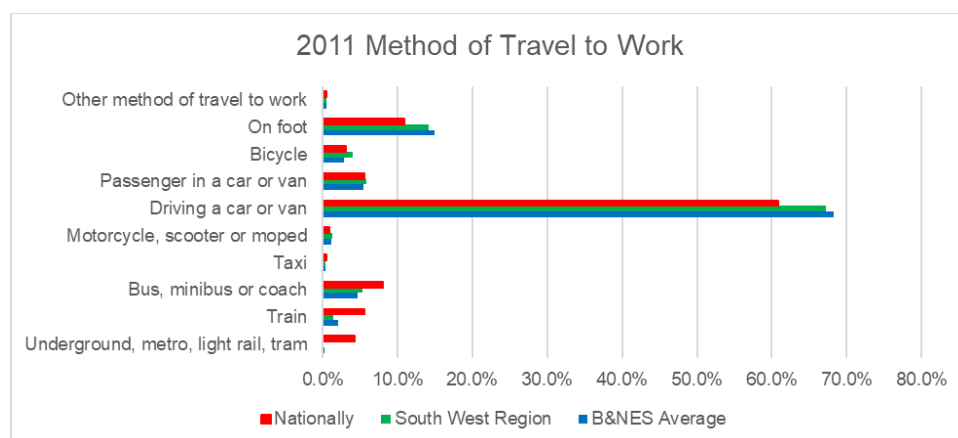
4.1.11 This section sets out the responses to the same question from the 2011 census. The respondents who answered 'Work from Home' in the 2011 Census are included in the results presented in **Table 4-3**.

Table 4-3: 2011 Method of Travel to Work – With Work from Home

	Light Rail, Tram	Train	Bus, Coach	Taxi	Motorcycle	Car Driver	Car Passenger	Bicycle	On foot	Other	Work from Home
B&NES	0.2%	1.8%	3.9%	0.2%	0.9%	56.7%	4.4%	2.3%	12.4%	0.4%	16.7%
South West Region	0.1%	1.2%	4.6%	0.3%	1.1%	58.7%	5.1%	3.4%	12.3%	0.4%	12.8%
GB Nationally	3.8%	5.0%	7.2%	0.5%	0.8%	54.5%	5.0%	2.8%	9.8%	0.4%	10.3%

- 4.1.12 Table 4-3 shows that 16.7% of respondents in B&NES answered 'Work from Home' as compared to 12.8% on average for the South West and 10.3% for Great Britain. B&NES has a lower car driver mode share at 56.7% as compared to the results for the South West at 58.7%, however, this is above the average for Great Britain at 54.5%. B&NES also has a higher proportion of respondents that travel on foot compared to GB nationally, 12.4% compared with 9.8%, respectively.
- 4.1.13 When comparing the results between 2011 (Table 4-3) and 2021 (Table 4-1), it can be seen that that, unsurprisingly, the 'working from home' respondents were much higher across the board in 2021 than they had been previous (38.1% in B&NES up from 16.7%, 30.4% in the South West up from 12.8%, and 31.2% for Great Britain up from 10.3% previously). There appears to be a correlating decrease in 'light rail', 'train' and 'bus' also across the three areas (train decreased from 1.8% to 0.7% in B&NES, from 1.2% to 0.5% for the South West and from 5.0% to 1.9% for Great Britain. Similarly, bus decreased from 3.9% to 3.6% in B&NES, from 4.6% to 2.8% across the Southwest and from 7.2% to 4.2% for Great Britain.
- 4.1.14 To understand the mode share of the responses which involved a journey, the responses which answered 'Work from Home' and 'Not in employment or aged 15 years and under' have been excluded. This is presented in **Figure 4-3** below.

Figure 4-3: 2011 Method Used to Travel to Work – Comparison of B&NES, South West and GB Nationally



- 4.1.15 Figure 4-3 shows that in 2011 the B&NES district had a higher car mode share as compared to both the South West region and Great Britain as a whole with 68.3% compared to 67.3% and 60.8%, respectively. However, the average result for the B&NES district as presented in Figure 4-3 masks considerable variation between the different MSOA's within B&NES. The responses for each MSOA within B&NES in 2011 are presented in **Table 4-4**.

Table 4-4: 2011 Method of Travel to Work – Without Work from Home and Not Working

MSOA		Light Rail, Tram	Train	Bus, Coach	Taxi	Motorcycle	Car Driver	Car Passenger	Bicycle	On foot	Other
1	Keynsham North	0.1%	1.8%	4.4%	0.1%	1.1%	67.2%	6.5%	2.5%	15.7%	0.5%
2	Keynsham South	0.0%	2.6%	3.5%	0.4%	0.6%	72.9%	4.8%	1.9%	13.0%	0.2%
3	Keynsham East	0.0%	0.6%	3.1%	0.2%	1.8%	75.7%	5.4%	3.5%	9.5%	0.3%
4	Larkhall, Bath	0.0%	1.4%	5.0%	0.2%	0.8%	59.1%	4.5%	6.9%	21.7%	0.3%
5	Weston, Bath	0.0%	1.4%	5.8%	0.5%	1.2%	60.2%	5.2%	2.7%	22.1%	0.8%
6	Lambridge, Bath	0.1%	2.8%	4.6%	0.4%	0.7%	58.9%	4.0%	5.7%	22.0%	0.7%
7	Lansdown, Bath	0.1%	8.0%	12.3%	0.2%	1.2%	42.6%	5.3%	3.7%	26.3%	0.3%
8	Newbridge, Bath	0.0%	1.4%	5.3%	0.1%	1.1%	67.4%	4.0%	3.7%	16.8%	0.3%
9	Kingsmead , Bath	0.1%	7.6%	8.7%	0.2%	1.3%	46.9%	4.7%	4.4%	25.8%	0.3%
10	Bathavon, Bath	0.0%	2.2%	2.8%	0.1%	1.1%	73.6%	5.0%	3.2%	11.5%	0.6%
11	Twerton, Bath	0.1%	1.7%	5.3%	0.3%	1.3%	68.4%	3.5%	2.5%	16.4%	0.5%
12	Oldfield Park, Bath	4.1%	8.8%	9.8%	0.3%	1.4%	51.2%	4.4%	5.0%	14.6%	0.3%

13	Oldfield Park West, Bath	0.1%	2.7%	4.0%	0.4%	0.6%	67.6%	5.1%	1.9%	17.0%	0.5%
14	Moorlands, Bath	0.1%	1.5%	5.5%	0.5%	1.6%	56.0%	6.8%	1.7%	25.8%	0.5%
15	Southdown , Bath	0.2%	1.5%	4.9%	0.5%	0.5%	65.0%	8.2%	1.8%	17.1%	0.4%
16	Farmborou gh	0.0%	0.9%	3.3%	0.2%	1.4%	75.3%	6.2%	3.1%	9.0%	0.5%
17	Bloomfield, Bath	0.0%	1.8%	4.5%	0.5%	0.9%	73.5%	4.8%	2.1%	11.6%	0.3%
18	Coombe Down, Bath	0.0%	1.6%	4.9%	0.2%	0.9%	75.4%	4.7%	2.9%	8.9%	0.6%
19	Odd Down, Bath	0.2%	1.5%	4.3%	1.2%	0.4%	72.6%	5.9%	0.9%	12.6%	0.4%
20	Publow, Whitchurch	0.1%	0.2%	2.9%	0.3%	1.0%	78.8%	6.0%	1.2%	8.9%	0.6%
21	Chew Valley	0.1%	0.7%	1.5%	0.0%	1.1%	80.2%	5.7%	1.5%	8.5%	0.5%
22	Peasedow n	0.1%	1.4%	5.5%	0.6%	1.3%	76.4%	5.5%	2.1%	6.8%	0.4%
23	Paulton	0.0%	0.4%	3.2%	0.3%	1.1%	76.3%	6.4%	1.4%	10.4%	0.4%
24	Westfield	0.1%	0.2%	2.4%	0.1%	1.0%	79.4%	5.7%	1.9%	9.0%	0.3%
25	Midsomer Norton	0.0%	0.2%	1.7%	0.1%	1.0%	73.8%	5.7%	2.3%	14.9%	0.3%
26	Radstock	0.0%	0.2%	1.7%	0.1%	1.5%	75.6%	5.6%	3.6%	11.5%	0.2%

27 Midsomer Norton	0.2%	0.2%	3.4%	0.1%	0.5%	74.7%	4.8%	0.8%	14.5%	0.8%
B&NES Average	0.2%	2.0%	4.6%	0.3%	1.1%	68.3%	5.4%	2.8%	14.9%	0.4%
South West Region Average	0.1%	1.4%	5.3%	0.3%	1.3%	67.3%	5.8%	3.9%	14.1%	0.5%
GB National Average	4.2%	5.5%	8.0%	0.5%	0.9%	60.8%	5.6%	3.1%	10.9%	0.4%

4.1.16 The key findings from Table 4-4 are as follows:

- There is a significant variation between the method of travel to work across the different MSOA's;
- In 2011, the MSOA 21 for the Chew Valley had the highest car mode share with 80.2% (this further increased in 2021 to 84.8%), with MSOA for Central Bath having the lowest car mode share with 42.6% (the lowest MSOA in 2021 was Kingsmead in Bath with 33.4%);
- The highest bus mode share in 2011 was in Central Bath with 12.3% (this MSOA dipped to 6.3% in 2021). In 2021 the MSOA with the highest bus mode share was in Twerton, Bath with 11.2%, which had risen from 5.3% in 2011. The MSOA with the lowest bus mode share in 2011 was in the Chew Valley with 1.5% (which decreased further in 2021 to 1.1%); and
- The highest rail mode share in 2011 was 8.8% for the MSOA of Oldfield Park which has a rail station in it. This MSOA decreased to 3.8% in 2021.

4.1.17 It is more evident from the comparison of results in Table 4-2 and Table 4-4 that there has been changes to travel to work patterns over the 10 year period between the Census dates. Whether this change is entirely related to the COVID-19 pandemic is not possible to say from this data, but it is evident that between the two dates there was a decrease in those travelling by train and by bus, particularly from urban areas like the centre of Bath. There was an increase in the percentage of respondents traveling by car from rural areas, but again a decrease in urban areas.

Distance Travelled to Work

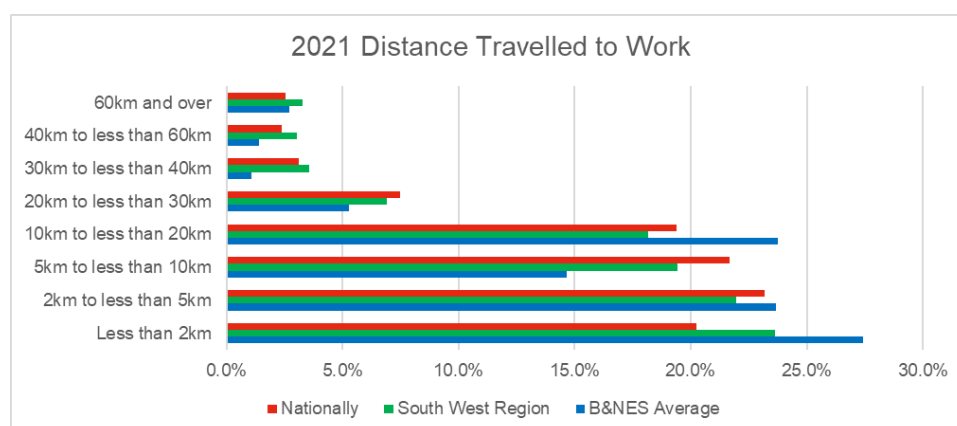
4.1.18 The Distance Travelled to Work has been interrogated for the B&NES district and compared against the results for Great Britain as a whole. The results are presented in **Table 4-5**.

Table 4-5: 2021 Distance Travelled to Work – Without Work from Home

	Up to 2km	2km to 5km	5km to 10km	10km to 20km	20km to 30km	30km to 40km	40km to 60km	Over 60km
B&NES	27.4%	23.7%	14.7%	23.8%	5.3%	1.1%	1.4%	2.7%
South West Region	23.6%	22.0%	19.4%	18.2%	6.9%	3.6%	3.0%	3.3%
GB National	20.3%	23.2%	21.7%	19.4%	7.5%	3.1%	2.4%	2.5%

4.1.19 The results from Table 4-5 are illustrated on **Figure 4-4** below.

Figure 4-4: 2021 Distance Travelled to Work – Comparison of B&NES, South West and GB



- 4.1.20 Table 4-5 and Figure 4-4 show that 27.4% of respondents in B&NES answered 'Up to 2 km' as compared to 20.3% for Great Britain and 23.6% for the South West Region. B&NES also had a higher percentage of respondents answering '2km to 5km' and '10km to 20km' as compared to the results for Great Britain with 23.7% and 23.8% for B&NES for the respective categories and 23.2% and 19.4% for Great Britain nationally.
- 4.1.21 B&NES was below the GB national average for the percentage of respondents that answered '20km to 30km' 5.3% compared to 7.5%, '30km to 40km' 1.1% compared to 3.1%, and for '40km to 60km' 1.4% compared to 2.4%. Whilst B&NES was slightly above the national average for those who answered 'Over 60km', with 2.7% compared to 2.5%, it was still below the average for the South West region at 3.3%.
- 4.1.22 These results show that in the B&NES district, respondents generally travelled shorter distances to work as compared to the results of Great Britain and the South West region.
- 4.1.23 **Table 4-6** shows the breakdown of responses for each of the MSOA's within the B&NES district.

Table 4-6: 2021 Distance Travelled to Work -With Work from Home

MSOA	Up to 2km	2km to 5km	5km to 10km	10km to 20km	20km to 30km	30km to 40km	40km to 60km	Over 60km	Work from Home
1 Keynsham North	10.8%	8.0%	19.0%	12.6%	2.1%	0.6%	0.6%	1.3%	45.0%
2 Keynsham South	12.2%	6.8%	22.3%	15.5%	2.3%	0.7%	0.7%	1.5%	38.0%
3 Keynsham East	10.0%	5.5%	20.3%	12.0%	1.8%	0.5%	0.8%	0.5%	48.6%
4 Larkhall, Bath	12.1%	16.1%	3.4%	8.5%	1.9%	0.5%	0.9%	1.2%	55.4%
5 Weston, Bath	23.1%	14.5%	4.7%	9.3%	1.9%	0.3%	0.9%	1.1%	44.4%
6 Lambridge, Bath	21.6%	12.9%	1.7%	7.9%	1.5%	0.4%	1.3%	1.5%	51.1%
7 Lansdown, Bath	23.1%	8.9%	1.6%	7.5%	1.7%	0.3%	0.8%	1.7%	54.5%
8 Newbridge, Bath	21.0%	14.6%	3.3%	8.5%	1.6%	0.6%	0.9%	1.6%	48.0%
9 Kingsmead, Bath	30.0%	7.1%	2.8%	6.7%	1.8%	0.5%	0.5%	1.8%	48.8%
10 Bathavon, Bath	4.1%	12.4%	10.5%	8.6%	3.7%	0.6%	0.9%	1.5%	57.8%
11 Twerton, Bath	25.0%	30.3%	6.3%	9.8%	2.1%	0.4%	1.0%	1.0%	24.1%
12 Oldfield Park, Bath	17.6%	8.4%	1.4%	6.6%	1.7%	0.4%	1.0%	3.5%	59.3%
13 Oldfield Park West, Bath	26.7%	10.5%	2.4%	8.0%	1.9%	0.7%	1.1%	2.6%	46.0%
14 Moorlands, Bath	24.2%	16.0%	2.8%	7.3%	1.8%	0.1%	1.3%	2.4%	44.1%
15 Southdown, Bath	14.6%	31.1%	4.0%	10.3%	2.4%	0.5%	0.6%	1.6%	34.9%
16 Farmborough	4.3%	8.4%	20.8%	15.0%	2.6%	0.6%	0.4%	1.0%	46.9%

17	Bloomfield, Bath	11.8%	14.2%	2.0%	7.6%	2.1%	0.4%	0.6%	1.5%	59.8%
18	Coombe Down, Bath	12.8%	23.3%	3.5%	7.5%	3.3%	0.7%	0.7%	1.6%	46.7%
19	Odd Down, Bath	10.3%	31.8%	4.3%	10.3%	3.5%	0.7%	0.6%	1.2%	37.3%
20	Publow, Whitchurch	4.1%	8.1%	14.2%	22.8%	3.5%	0.9%	0.6%	1.1%	44.8%
21	Chew Valley	4.5%	4.4%	9.7%	21.4%	4.8%	0.7%	0.7%	1.4%	52.5%
22	Peasedown	4.4%	6.7%	32.2%	11.4%	3.7%	0.6%	0.9%	1.7%	38.4%
23	Paulton	7.8%	12.5%	6.9%	29.8%	6.0%	1.0%	0.8%	1.0%	34.2%
24	Radstock	10.1%	16.9%	7.2%	28.4%	5.6%	0.7%	0.6%	1.0%	29.4%
25	Midsomer Norton	20.3%	10.0%	4.8%	25.9%	5.0%	0.8%	0.5%	1.0%	31.7%
26	Westfield	24.9%	11.6%	5.2%	27.4%	5.6%	1.2%	0.5%	0.9%	22.8%
27	Midsomer Norton	20.3%	10.2%	6.1%	27.1%	5.8%	1.3%	0.4%	1.0%	27.7%
B&NES Average		15.2%	13.4%	8.3%	13.8%	3.0%	0.6%	0.8%	1.4%	43.4%
South West Region Average		15.2%	14.1%	12.5%	11.7%	4.4%	2.3%	1.9%	2.1%	35.8%
GB National Average		12.9%	14.7%	13.8%	12.3%	4.7%	2.0%	1.5%	1.6%	36.5%

4.1.24 The key findings from Table 4-6 are as follows:

- There is a significant variation between the distance travelled to work across the different MSOA's; and
- A high proportion of respondents answered 'Working from Home'. The MSOA for Bloomfield (around Englishcombe Lane in Bath) reported 59.8% 'Working from Home', closely followed by 59.3% for Oldfield Park. The lowest proportion 'Working from Home' was recorded for the MSOA for Westfield in the Somer Valley at 22.8% followed by Twerton at 24.1%. The 2021 'Industry by Age' census dataset, indicates that the Westfield and Twerton MSOAs contain a higher proportion of workers in the manufacturing and construction industry which may explain the lower proportion of 'Working from Home'.

4.1.25 **Table 4-7** sets of the distance results of how far respondents travelled, with 'Working from Home' removed.

Table 4-7: 2021 Distance Travelled to Work -Without Work from Home

MSOA	Up to 2km	2km to 5km	5km to 10km	10km to 20km	20km to 30km	30km to 40km	40km to 60km	Over 60km
1 Keynsham North	24.2%	22.5%	2.5%	16.6%	3.8%	1.2%	1.1%	8.1%
2 Keynsham South	24.2%	17.9%	28.5%	21.2%	5.3%	1.1%	0.7%	1.1%
3 Keynsham East	21.7%	20.9%	29.2%	18.6%	4.3%	1.3%	1.6%	2.3%
4 Larkhall, Bath	33.1%	23.4%	10.2%	24.0%	4.0%	1.2%	1.1%	3.0%
5 Weston, Bath	32.5%	26.9%	11.8%	19.4%	3.7%	1.1%	2.1%	2.6%
6 Lambridge, Bath	29.0%	26.7%	10.3%	24.6%	3.8%	1.4%	2.2%	2.1%
7 Lansdown, Bath	25.2%	23.0%	9.5%	29.7%	4.9%	1.5%	2.4%	3.8%
8 Newbridge, Bath	20.7%	18.4%	13.7%	31.3%	5.5%	1.4%	1.6%	1.4%
9 Kingsmead, Bath	29.1%	19.1%	10.4%	29.9%	4.5%	1.8%	2.3%	3.0%
10 Bathavon, Bath	16.6%	19.5%	27.0%	25.2%	5.9%	1.5%	1.2%	3.1%
11 Twerton, Bath	27.5%	16.3%	13.6%	31.7%	5.8%	1.4%	2.0%	1.6%
12 Oldfield Park, Bath	14.8%	26.1%	9.4%	23.4%	4.7%	1.2%	1.9%	18.5%
13 Oldfield Park West, Bath	34.9%	15.2%	13.6%	27.2%	5.1%	1.6%	1.5%	0.9%
14 Moorlands, Bath	45.0%	15.2%	10.9%	21.2%	2.8%	1.0%	1.5%	2.3%
15 Southdown, Bath	45.2%	15.7%	16.7%	16.1%	2.3%	1.0%	1.3%	1.7%
16 Farmborough	16.3%	18.8%	33.5%	21.3%	5.2%	1.3%	1.5%	2.0%
17 Bloomfield, Bath	24.9%	19.1%	16.3%	31.7%	4.8%	0.9%	0.9%	1.3%
18 Coombe Down, Bath	11.6%	24.7%	16.0%	27.8%	7.2%	3.1%	4.3%	5.3%
19 Odd Down, Bath	28.0%	18.3%	16.7%	28.1%	4.9%	1.3%	1.0%	1.7%

20	Publow, Whitchurch	20.2%	19.3%	25.5%	24.9%	4.5%	1.6%	1.0%	3.0%
21	Chew Valley	13.5%	17.3%	25.6%	33.1%	6.4%	0.8%	1.2%	2.3%
22	Peasedown	12.5%	22.5%	25.8%	22.2%	6.4%	2.0%	3.1%	5.5%
23	Paulton	26.3%	26.0%	11.0%	24.1%	9.0%	1.2%	0.9%	1.4%
24	Radstock	24.4%	25.5%	15.4%	22.9%	6.6%	1.3%	0.6%	3.3%
25	Midsomer Norton	42.3%	23.8%	8.4%	18.2%	3.4%	1.6%	0.6%	1.7%
26	Westfield	33.6%	26.4%	8.6%	20.8%	6.2%	1.4%	1.3%	1.7%
27	Midsomer Norton	35.1%	16.2%	10.4%	30.2%	4.9%	1.2%	0.8%	1.2%
B&NES Average		26.4%	20.9%	16.7%	24.7%	5.0%	1.4%	1.5%	3.2%
South West Region Average		25.3%	22.6%	19.0%	17.3%	6.1%	3.0%	2.7%	4.0%
GB National Average		20.4%	22.5%	21.3%	18.9%	7.1%	3.2%	2.9%	3.7%

- 4.1.26 Table 4-7 shows that the general pattern is that the urban areas in and around Bath (e.g. MSOA's 6, 7 and 9) have a higher proportion of residents working within 2km, as compared to the more rural areas in the Chew Valley and in the Somer Valley of Peasedown, Paulton and Radstock (e.g. MSOA's 21, 22, 23 and 24) where there is a higher proportion of residents travelling 10km and further. MSOA 21 for the Chew Valley has 13.5% of respondents travelling under 2km and 33.1% of respondents travelling between 10km and 20km. The MSOA for Kingsmead in Bath has 29.1% of respondents travelling under 2km and 29.9% of respondents travelling between 10km and 20km.
- 4.1.27 For those respondents making a journey to work rather than working from home, the distance travelled to work should not have been significantly affected by the pandemic restrictions in place at the time of the Census. Therefore, a comparison for the B&NES district, South West region and GB Nationally has been made to the same dataset within the 2011 Census, to understand the change between 2011 and 2021. This is presented in **Table 4-8**.

Table 4-8: Comparison of Distance Travelled to Work between 2011 and 2021

	Up to 2km	2km to 5km	5km to 10km	10km to 20km	20km to 30km	30km to 40km	40km to 60km	Over 60km
B&NES	1.0%	2.7%	-2.0%	-0.9%	0.2%	-0.3%	-0.1%	-0.5%
South West Region	-1.6%	-0.6%	0.4%	0.9%	0.8%	0.5%	0.4%	-0.7%
GB Nationally	-0.2%	0.7%	0.4%	0.5%	0.4%	0.0%	-0.5%	-1.1%

- 4.1.28 Table 4-8 shows that as compared to the 2011 Census, the overall B&NES district has increased the number of trips to work under 2km by 1%, and between 2km to 5km by 2.7%. There was a slight increase of 0.2% in the '20km to 30km' category. The averages across the South West region appear to show the opposite trend, with decreases in the 'up to 2km' and '2km to 5km' categories and decreases in subsequent categories (with the exception of 'over 60km' which also shows a decrease).
- 4.1.29 When the figures for B&NES are compared to the GB national numbers it can be seen that the B&NES district numbers does not follow the same trends as GB Nationally, apart from both show an overall decrease in trips between '40km and 60km' and 'over 60km'. Nationally there was found to be a decrease of 0.2% in trips 'up to 2km', and then increase in the remaining categories between 2km and 30km. The South West region was also shown to have had a decrease in the number of trips 'over 60km'.
- 4.1.30 It is also worth noting that the sample size of those respondents making a journey to work would have been smaller for the 2021 Census as compared to the 2011 Census, since there was a high proportion of respondents working from home or furloughed in 2021 and it is unknown how far they would 'usually' travel to work either pre or post-pandemic if they weren't working from home.

Car Ownership

- 4.1.31 The number of cars or vans within each household (i.e. car ownership) has been interrogated for each MSOA within the B&NES district. The results are presented in **Table 4-9**.

Table 4-9: 2021 Census Number of Cars of Vans Per Household (Percentage of all Households)

MSOA		No Car	1	2	3+
1	Keynsham North	19.8%	42.9%	28.4%	8.9%
2	Keynsham South	19.7%	44.1%	28.9%	7.3%
3	Keynsham East	12.3%	40.4%	33.4%	13.9%
4	Larkhall, Bath	19.7%	49.6%	24.1%	6.6%
5	Weston, Bath	22.8%	45.8%	23.9%	7.6%
6	Lambridge, Bath	29.7%	49.5%	17.0%	3.7%
7	Lansdown, Bath	38.8%	41.2%	16.3%	3.7%
8	Newbridge, Bath	23.2%	44.9%	24.7%	7.3%
9	Kingsmead, Bath	40.2%	42.5%	13.9%	3.4%
10	Bathavon, Bath	10.2%	40.8%	35.3%	13.8%
11	Twerton, Bath	37.3%	40.8%	16.5%	5.4%
12	Oldfield Park, Bath	26.3%	45.8%	21.7%	6.2%
13	Oldfield Park West, Bath	33.5%	45.1%	16.7%	4.8%
14	Moorlands, Bath	29.4%	44.1%	20.2%	6.3%
15	Southdown, Bath	22.5%	45.1%	24.6%	7.8%
16	Farmborough	8.9%	35.3%	38.9%	17.0%
17	Bloomfield, Bath	13.9%	47.5%	31.4%	7.2%
18	Coombe Down, Bath	23.9%	43.7%	25.0%	7.3%
19	Odd Down, Bath	19.9%	44.1%	27.7%	8.4%
20	Publow, Whitchurch	7.5%	33.7%	39.5%	19.3%
21	Chew Valley	4.8%	30.6%	42.1%	22.4%
22	Peasedown	10.9%	39.4%	33.8%	15.9%
23	Paulton	9.9%	36.0%	37.7%	16.4%
24	Radstock	13.9%	41.9%	31.5%	12.7%
25	Midsomer Norton	12.6%	38.7%	35.2%	13.6%
26	Westfield	10.8%	41.4%	33.8%	14.0%
27	Midsomer Norton	14.5%	37.9%	32.8%	14.9%
B&NES Average		19.9%	42.0%	28.0%	10.2%
South West Region Average		16.8%	41.7%	29.9%	11.6%
GB National Average		23.3%	41.3%	26.2%	10.2%

4.1.32 The key findings from Table 4-9 are as follows:

- There is a very high level of variation in car ownership between the different MSOA's. This is most pronounced at the number of households with no car with the lowest being 8.9% for Farmborough and the highest being 40.2% for the Kingsmead MSOA in Bath;
- The MSOA's which comprise the Bath urban area (e.g. MSOA's 4-19) have the highest proportion of households with one car with up to 49.6% of households;

- It is also evident from the results that the Chew Valley and Somer Valley (MSOA's 21 – 27) have a high percentage of households with two cars and three or more cars as compared to other parts of the district. This correlates with lower levels of accessibility than other parts of the district;
- The results for the Keynsham MSOA's 1-3 show that the pattern of car ownership is greater than the Bath urban area and lower than rural and less accessible areas such as the Chew Valley and Somer Valley; and
- A comparison for the B&NES district, South West region and GB Nationally has been made to the same dataset within the 2011 Census, to understand the change between 2011 and 2021. The results are shown in **Table 4-10**.

Table 4-10: Comparison of Car Ownership between 2011 and 2021

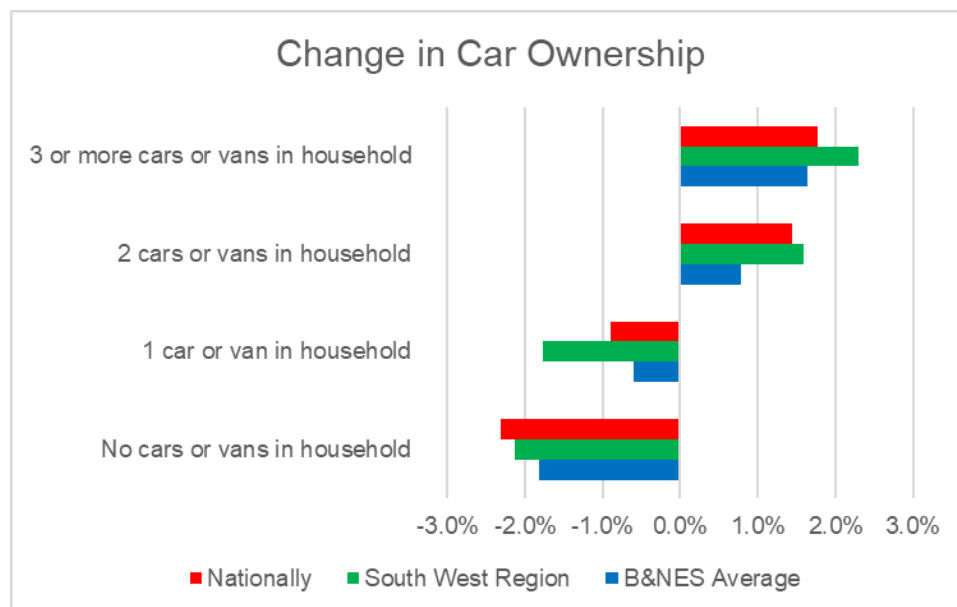
	No Car or Van	1	2	3
B&NES	-1.8%	-0.6%	0.8%	1.6%
South West Region	-2.1%	-1.8%	1.6%	2.3%
GB Nationally	-2.3%	-0.9%	1.4%	1.8%

4.1.33 In 2011 the average number of cars or vans per household was 1.2 (in 2011 the question allowed respondents separate answers for '3 cars' and '4 or more cars').

4.1.34 In the 2021 Census this question was simplified to a combined answer of '3 or more cars or vans'. It is noted that for the purpose of this comparison, if all these respondents were taken to have 3 cars that's likely to be an underestimate, and therefore this category was split using the proportions from the previous census (70% '3 cars', 30% '4 or more'). The average number of cars per household in 2021 was 1.3.

4.1.35 The results in **Table 4-10** are illustrated in **Figure 4-5**.

Figure 4-5: Comparison of Car Ownership between 2011 and 2021



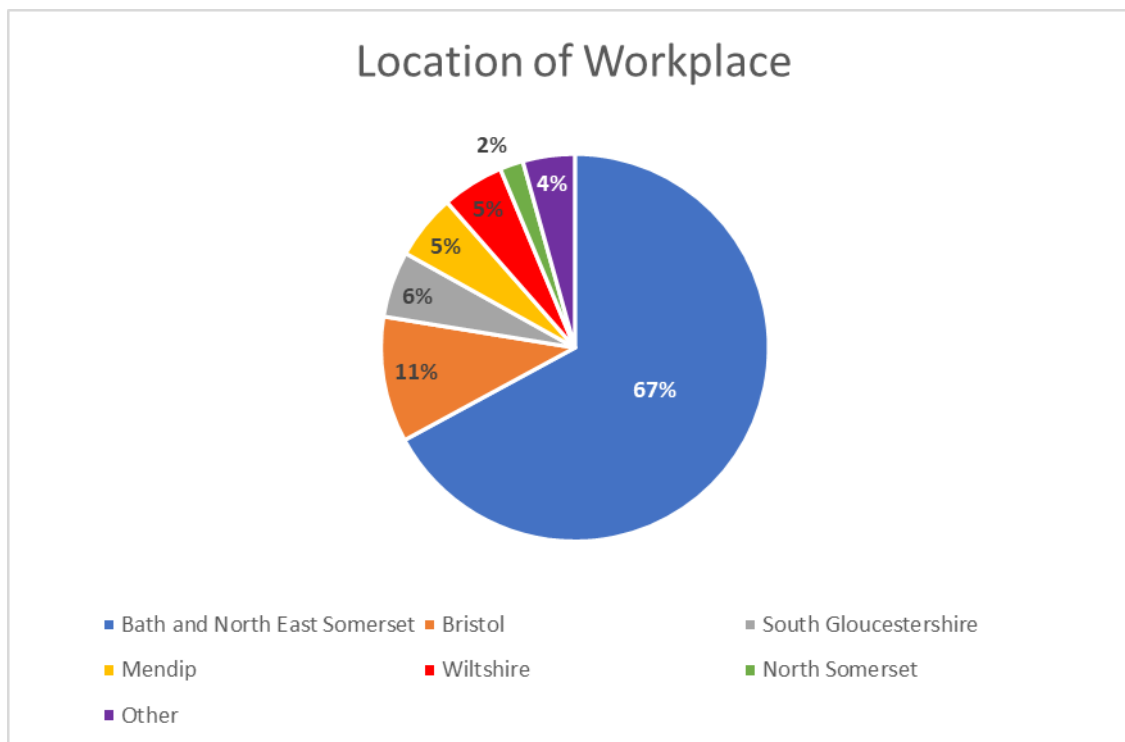
4.1.36 Table 4-10 and Figure 4-5 shows that as compared to the 2011 Census, the number of households within B&NES with access to two cars has increased by 0.8%, and the number with access to three or more cars has increased by 1.6%. Interestingly, this also corresponds to the pattern for Great Britain as a whole (with an increase of 1.4% in the number of households with access to two cars and an increase of 1.8% in the number of households with access to three or more cars) as well as the South West region. This indicates that the pattern is part of a wider societal change and less influenced by local

factors. In fact, the change in car ownership in the B&NES district is smaller as compared to the South West Region and GB National average.

Location of Workplace

4.1.37 **Figure 4-6** illustrates the most popular six locations for B&NES residents to work, excluding individuals who 'Work from Home' and 'Work from Offshore Installation'.

Figure 4-6: Location of Workplace for B&NES Residents



4.1.38 Figure 4-6 shows that the majority of employment opportunities for residents in the District are in Bath (67% of the total) and Bristol (11% of the total). This means that these are key destinations for residents with a high proportion of trips being made to / from these locations in the traditional weekday highway AM and PM peak hours.

Summary

4.1.39 The 2021 Census was undertaken during the COVID-19 pandemic when restrictions on normal life were in place. The results should be seen as a snapshot of respondent's situation at that time.

4.1.40 The results show that a higher proportion of respondents in B&NES answered 'Working from Home' when compared with Great Britain as a whole with 38.1% compared to 31.2%. However, when excluding those respondents who answered 'Working from Home,' the 'Method of Travel to Work' dataset shows that B&NES has a lower car driver mode share for the journeys that were made at 62.5% compared to the average for both the South West Region at 70.4% and Great Britain as a whole at 65.6%. In the 2011 Census, all three areas had a higher proportion of people driving when compared with 2021, but B&NES was higher (at 68.3%) than both the South West Region (67.3%) and the Great Britain average (60.8%).

4.1.41 The one mode share category that B&NES was significantly above the South West region and GB national average was the proportion of respondents that travel to work on foot, with 11.4% of the total as compared to 9.2% and 7.6% respectively. This is likely because of the high proportion of respondents within the Bath urban area who are able to access employment opportunities on foot, as evidenced by the 46.9% of respondents in the MSOA for Kingsmead who travel to work on foot.

- 4.1.42 The 'Distance Travelled to Work' dataset shows that B&NES has a higher proportion of residents who travel shorter distances to work than the GB national average (for trips up to 2km, B&NES recorded 27.4% compared to 20.3% for the GB national average). As compared to the 2011 Census, in B&NES there has been an increase in trips under 2km (1.0%) and between '2km and 5km' (2.7%), with a reduction in longer trips. This is similar to the overall trend for Great Britain which saw a reduction in the number of longer (40km+) trips, however, the GB national averages shows there has been a decrease of 0.2% in trips under 2km.
- 4.1.43 The 'Number of Cars or Vans Available (i.e. Car Ownership) dataset shows that B&NES, the South West region and the GB national average have seen a reduction in the number of households with access to no car (-1.8%, -2.1% and -2.3% respectively) or one car (-0.6%, -1.8% and -0.9%, respectively), whilst all have seen an increase in households with access to two (0.8%, 1.6% and 1.4% respectively) or 3 or more cars (1.6%, 2.3% and 1.8% respectively) between 2011 and 2021.
- 4.1.44 The 'Location of Workplace' shows 67% of journeys to work by B&NES residents are retained in B&NES and the next most common location of workplace is in Bristol.

5. Transport Projects

5.1 Introduction

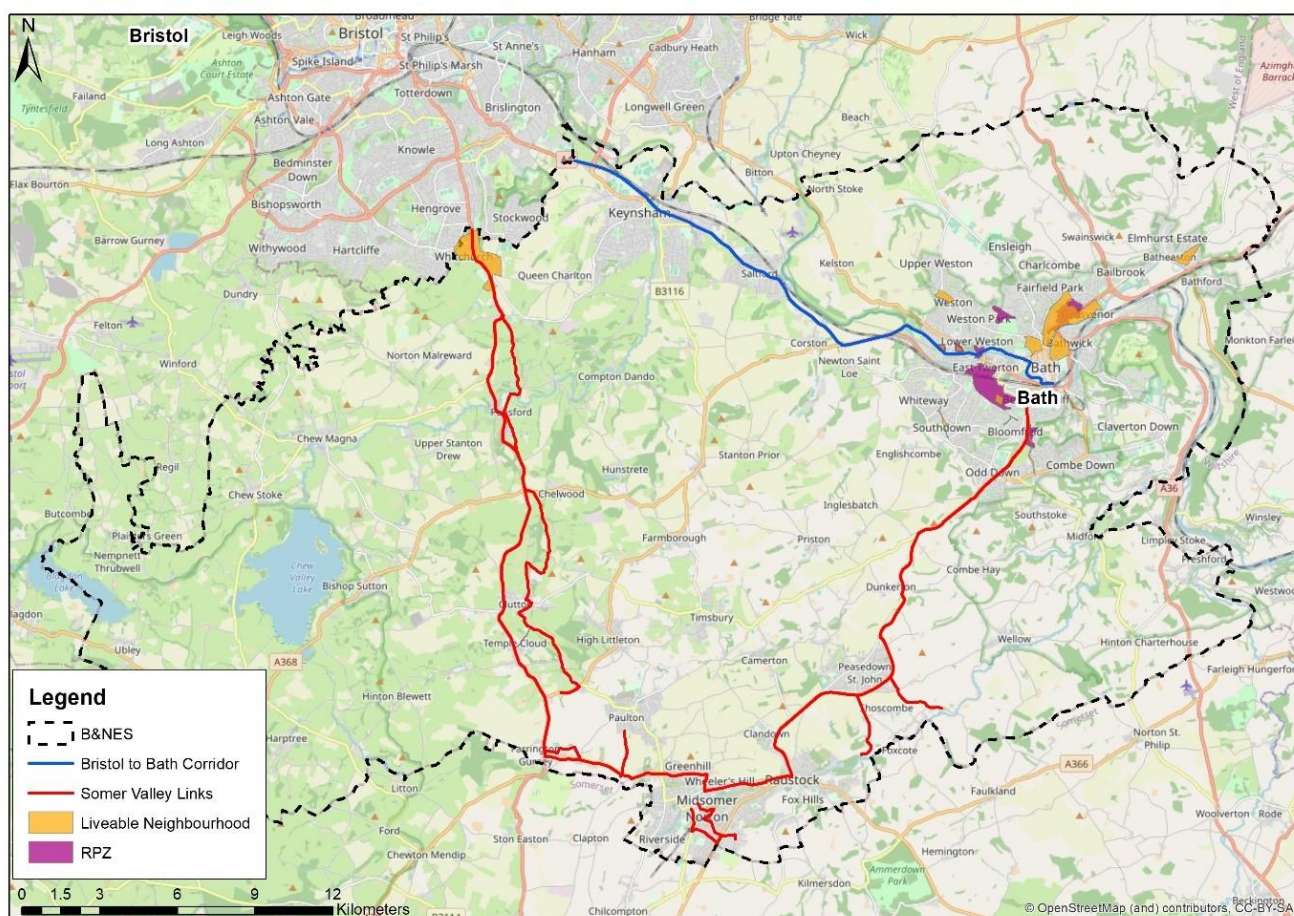
5.1.1 This section outlines the transport projects that are currently being undertaken across Bath and North East Somerset. It includes projects which have a strategic significance across the district, as opposed to projects which have a more local focus. Reference has been made to the Uncertainty Log of Infrastructure projects promoted by both B&NES and WECA. The strategic projects which have either a 'Near Certain' or 'Reasonably Foreseeable' likelihood of being delivered have been included.

5.1.2 The following transport schemes are discussed in this section and are illustrated in **Figure 5-1** where locations are identified:

- Bristol to Bath Strategic Corridor;
- Somer Valley Links;
- Liveable Neighbourhoods; and
- Residents' Parking Zones.

5.1.3 The Journey to Net Zero plan for Bath is also discussed in this section. It contains a number of transport schemes within Bath.

Figure 5-1: Location of Existing Transport Projects



5.1.4 Within this section, each of the projects identified in Figure 5-1 will be summarised and the current status and programme will be discussed. This will illustrate how the existing transport network is planned to be improved, in order to understand how it will perform in the future for the period covered by the New Local Plan.

5.2 Bristol to Bath Strategic Transport Corridor

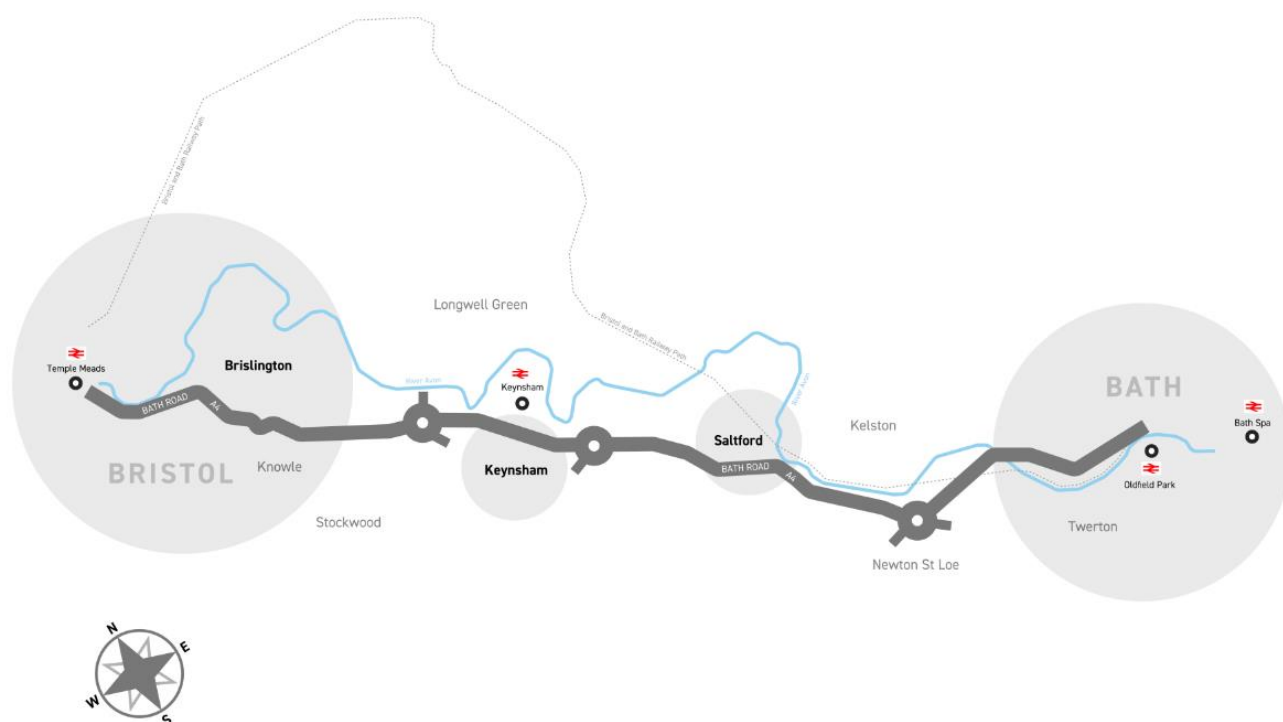
5.2.1 The BBSC (Bristol to Bath Strategic Corridor) seeks to improve travel between Bath and Bristol through better bus services, improvements to bus infrastructure, and develop facilities to enable more cycling and walking services and along the A4 route, as well as to the A4 route from neighbouring communities.

5.2.2 The project aims to:

- Enable people to move away from using cars by improving bus services between Bristol and Bath city centres
- The new services will provide more frequent and reliable services, reducing journey times by offering bus priority measures and bus lanes
- Create an end-to-end cycle route connecting communities along the corridor with easy-to-use cycling facilities
- Support opportunities for regeneration and economic growth by offering better connections between our communities

5.2.3 The proposals are illustrated on **Figure 5-2**.

Figure 5-2: BBSC Corridor



Source: haveyoursaywest.co.uk

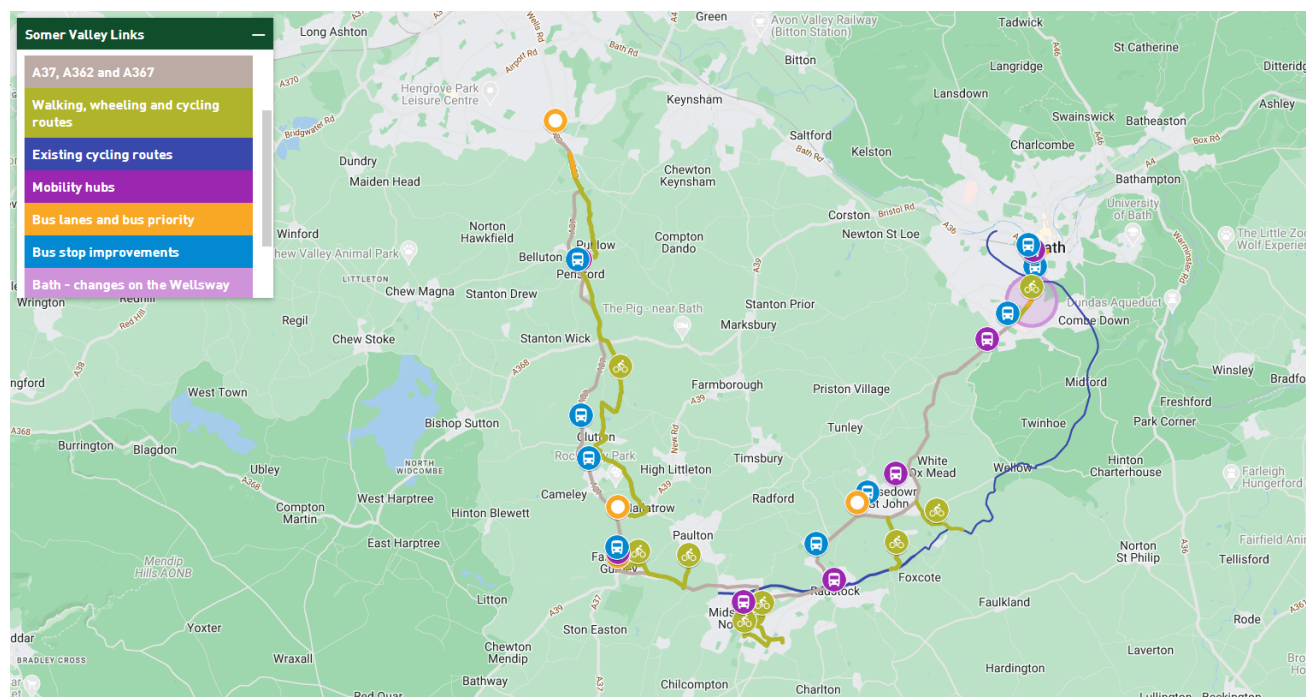
5.2.4 An online survey was undertaken from 26th August – 10th September 2021, followed by a public consultation between in August – September 2023.

5.3 Somer Valley Links

5.3.1 The A37 and A367 Corridor project is being led by the West of England Combined Authority and delivered in partnership with Bath and North East Somerset Council. It aims to improve travel between Midsomer Norton, Radstock, Westfield and Bath via the A367 and Bristol via

the A37; through better bus services and enabling more walking and cycling. The scope of the project is shown in **Figure 5-3** below.

Figure 5-3: Somer Valley Links



Source: www.haveyoursaywest.co.uk

5.3.2 The study identifies bus priority options between the Somer Valley and Bristol and Bath, plus associated active travel improvements. The study also considers potential for a new P&R/Interchange on the A37 and smaller transport hubs at key locations.

5.3.3 The project aims to:

- Enable people to move away from using cars to improve air quality and reduce carbon emissions along the corridor
- Make catching the bus or walking and cycling easier by offering an improved bus service and delivering easy-to-use walking and cycling facilities
- Reduce bus journey times and provide more frequent, reliable bus services
- Create walking and cycling routes which connect to communities along the corridor
- Support opportunities for regeneration and economic growth along the corridor
- Improve options for Park and Ride services

5.3.4 An online survey was undertaken from the 22nd November 2021 to 9th January 2022 to gain the public’s opinion on the scheme proposals. A further public consultation took place between 26th June and 6th August 2023.

5.4 Liveable Neighbourhoods

5.4.1 Bath and North East Somerset Council’s Liveable Neighbourhoods programme started in 2020. Residents were asked across the district how they felt about Liveable Neighbourhoods and transport-related issues in their area through a public engagement. 48 communities then applied to become a Liveable Neighbourhood, through ward councillors.

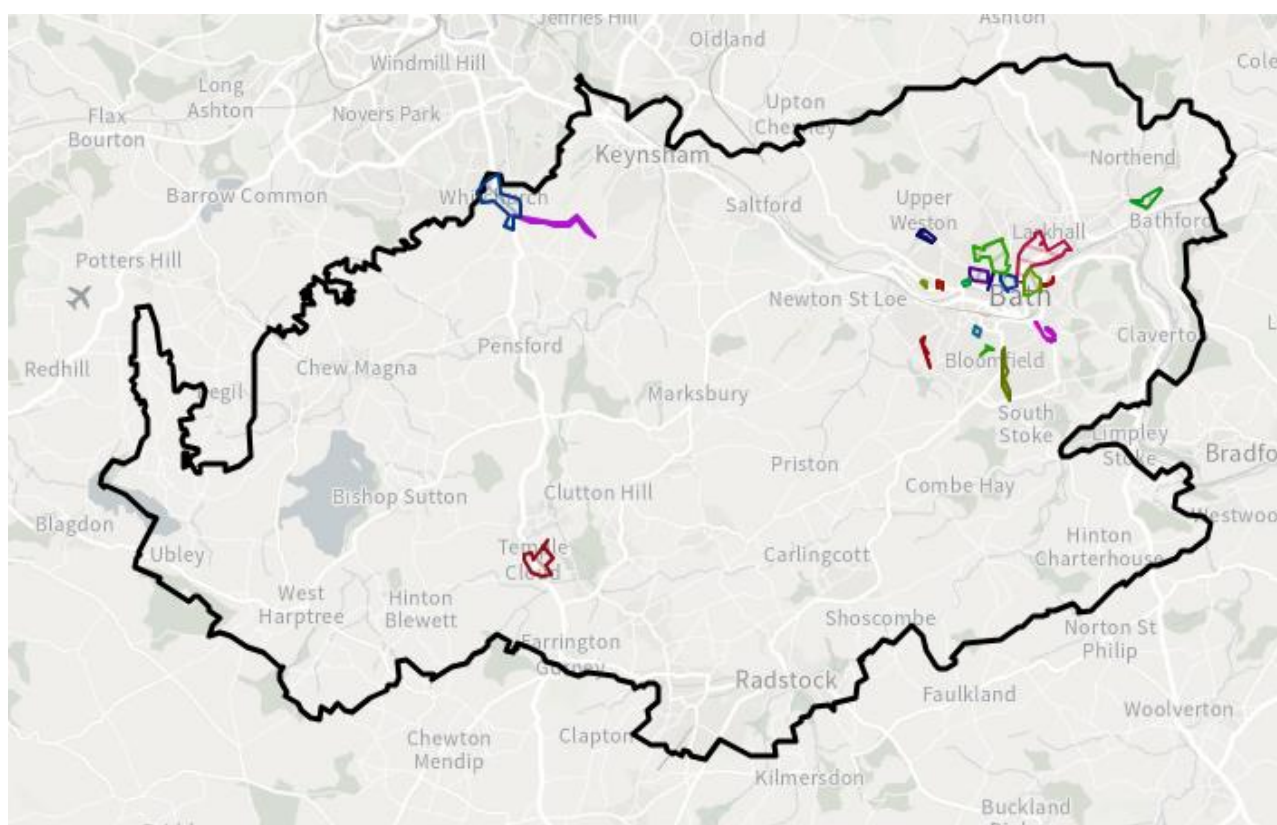
5.4.2 In 2021, the development of 15 Liveable Neighbourhoods was prioritised and a second public engagement was launched to allow communities to identify the key themes about their areas, including what is good about the area, transport-related issues and potential improvements.























5.4.3 The 15 areas prioritised for developing Liveable Neighbourhoods are as follows:

- Chelsea Road area;
- Church Street and Prior Road Park;
- Egerton Road and Cotswold Hill area;
- Entry Hill, Bath
- London Road and Snow Hill area;
- Lower Lansdown and The Circus;
- Lyme Road and Charmouth Road area;
- Morris Lane and Bannerdown Road area;
- Mount Road;
- New Sydney Place and Sydney Road;
- Oldfield Lane and The Avenues;
- Pulteney Estate area;
- Southlands area (Weston);
- Temple Cloud;
- Whitchurch Village and Queen Charlton.

5.4.4 A plan showing the location of the 15 Liveable Neighbourhood schemes is included at **Figure 5-4**.

Figure 5-4: Liveable Neighbourhood Locations



 Chelsea Rd & Foxcombe Rd	 Mount Rd Area
 Church Street (Through Traffic Proposal)	 New Sydney Pl & Sydney Rd
 Church Street and Prior Park Road	 Oldfield Lane and Avenues
 Egerton Rd & Cotswold Rd	 Pulteney Estate area
 Entry Hill Area	 Queen Charlton Lane (Through Traffic Proposal)
 London Road and Snow Hill area	 Southlands (Through Traffic Proposal)
 Lower Lansdown (Circus Area)	 Southlands Area
 Lower Lansdown (Marlborough Blds/ Lane)	 Temple Cloud
 Lower Lansdown (RVP Area)	 Tennyson Rd and Cork St (Through Traffic Proposal)
 Lower Lansdown Area	 Whitchurch Village and Queen Charlton
 Lyme Rd & Charmouth Rd	
 Morris Lane and Bannerdown Rd Area	

Source: www.bathnes.gov.uk



5.4.5 The Council is looking to trial five further interventions as Experimental Traffic Regulation Orders (ETROs) in a similar way to those introduced in 2022 in Southlands, Weston; Church Street, Widcombe; and Queen Charlton Lane, Whitchurch ahead of submitting the full business case in 2024. The following ETROs are being applied for:

- A through-traffic restriction in Catharine Place;
- A through traffic restriction in Winifred's Lane (south of its junction with Somerset Lane) and supplemented by a no-right-turn onto Sion Hill from the northern end of Cavendish Road;
- A through-traffic restriction in Sydney Road at its junction with New Sydney Place;
- No entry for motorised vehicles into Upper Gay Street from the George Street junction; and
- Formalisation of a one-way system in Charmouth Road, Lyme Road and Lyme Gardens.

5.5 Residents' Parking Zones (RPZs)

5.5.1 Following extensive public consultation, seven new RPZs are being introduced in Bath to support key policies on transport, health and the environment.

- 5.5.2 RPZs aim to tackle anti-social driving and commuter parking in residential streets. They also help to make our streets safer by reducing the risks associated with the increasing number of vehicles driving in these areas looking to park.
- 5.5.3 The new RPZs also support the policy aims to reduce vehicle emissions and congestion, ensuring that fair consideration and street space is given to those that would prefer to walk, wheel, scoot or cycle short trips.
- 5.5.4 The locations of the seven RPZs are:
- Entry Hill area - Zone 22
 - Sion Hill and Summerhill Road area - Zone 23
 - Chelsea Road and Foxcombe Road area - Zone 24
 - Lyme Gardens and Charmouth Road area - Zone 25
 - St John's Road, St Michael's Road and Hungerford Road area (Lower Weston) - Zone 26
 - Walcot, Snow Hill and Claremont Road area - Zone 27
 - Oldfield Park and Westmoreland area - Zone 28
- 5.5.5 Work to introduce the first five RPZs (Zones 22 – 26) began in January 2023 and they became operational on 20th February 2023. The Walcot, Snow Hill and Claremont Road RPZ Zone 27 came into force on 31st July 2023 and the Oldfield Park and Westmoreland RPZ Zone 28 came into force on 29th August 2023.
- 5.5.6 The seven new RPZ's are in addition to the existing RPZ's; Zone 11, Zone 17, Zone 18, Zone 19, Zone 20 and Zone 21, which are all in Bath except for Zone 20 which is in Saltford.
- 5.5.7 The RPZ's are shown on **Figure 5-5** and **Figure 5-6**.

Figure 5-5: Residents Parking Zones in Bath (Existing and Proposed RPZ's and Permit Parking Zones)

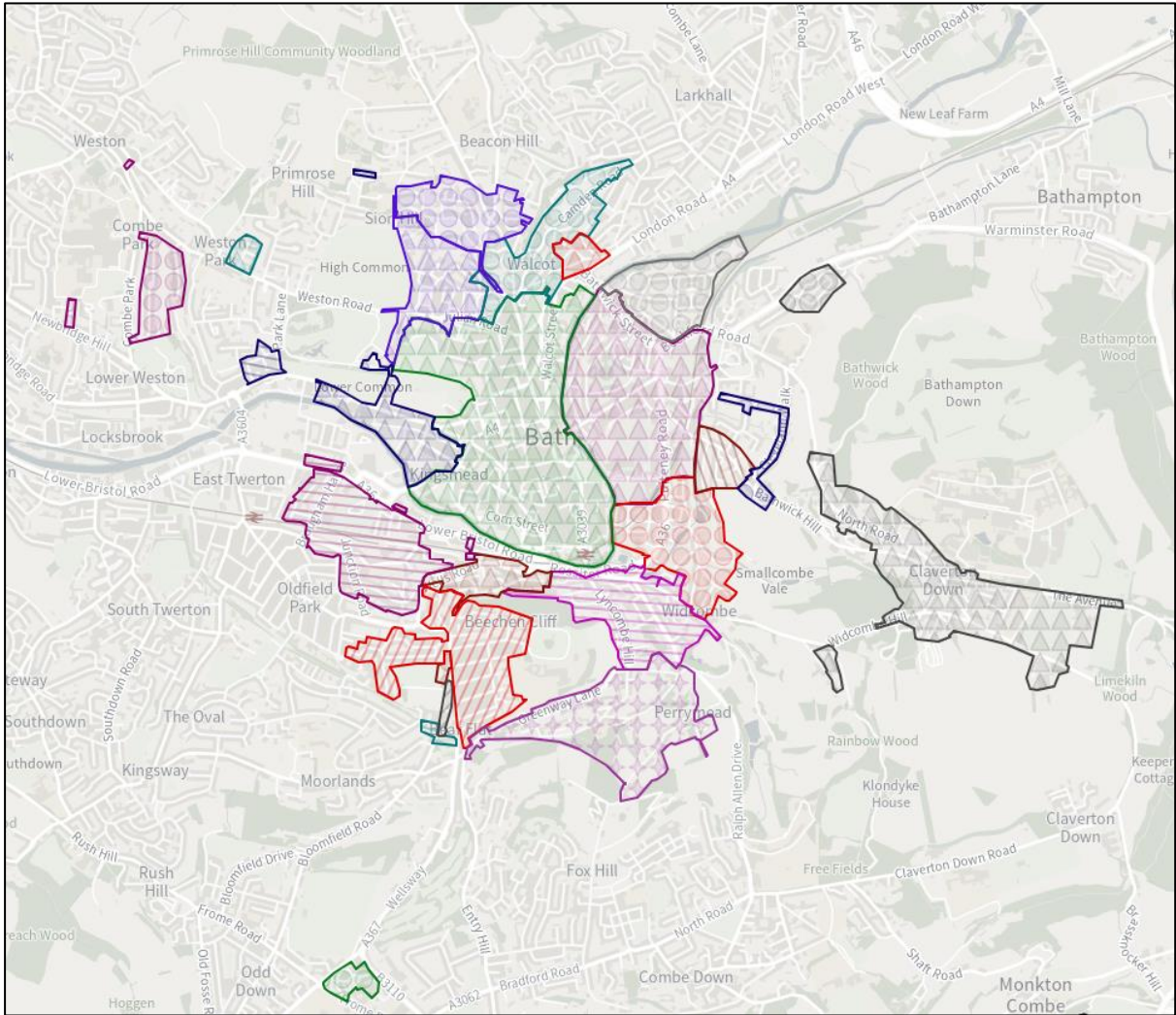
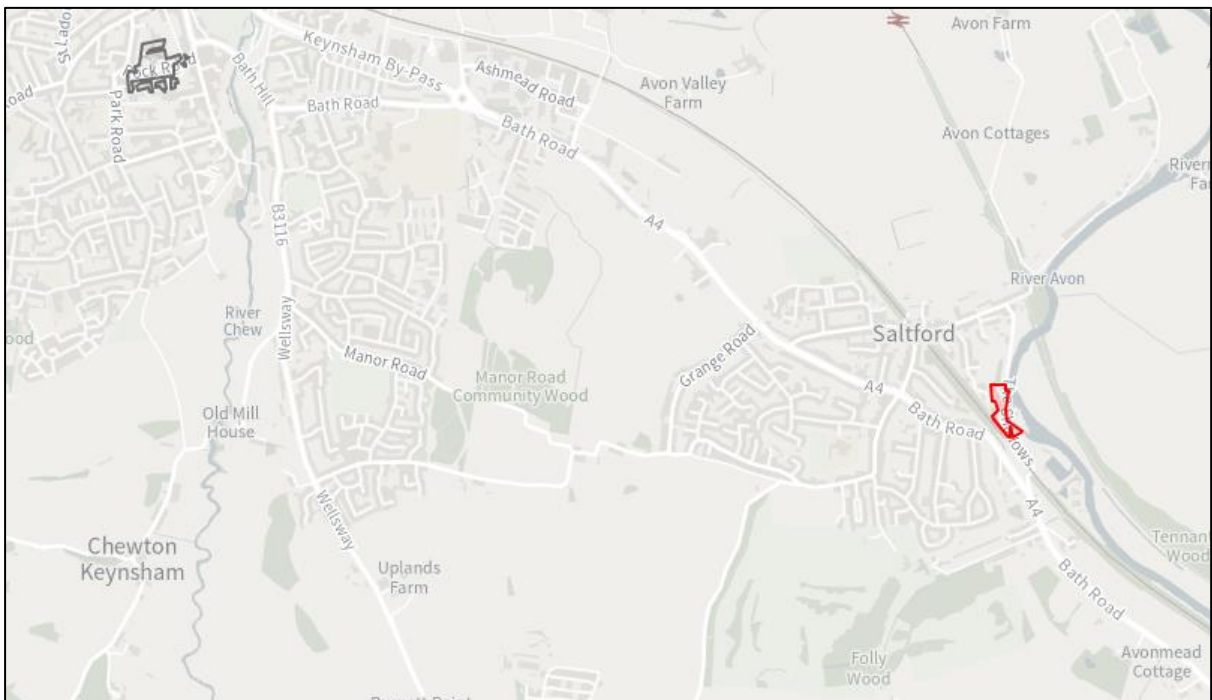


Figure 5-6: Residents Parking Zones in Keynsham (Permit Parking Zone) and Saltford (RPZ 20)



Source: www.bathnes.gov.uk

5.6 Journey to Net Zero

5.6.1 The Journey to Net Zero Transport Plan for Bath identifies the challenges we face in terms of transport both now and in the future, and also the measures required to overcome these to support the realisation of the Councils' core policy theme to tackle the climate and ecological emergency. The Corporate Strategy has two core policy themes:

- Tackling the climate emergency
- Giving people a bigger say

5.6.2 The *Journey to Net Zero* supports delivery of these policies by setting out a plan to reduce the environmental impact of transport in Bath.

5.6.3 The plan identifies:

- **Current projects** – these are already underway and are either being developed by the council and have been consulted on, or have been delivered
- **Developing projects** – projects being developed by the council and are subject to consultation and approval
- **Future projects** – emerging projects that are not currently under development, but could be pursued by the council to achieve carbon targets

5.6.4 Current and Developing / Future projects that have been identified in JNTZ, are as follows:

Current Projects



Providing for travel by bike and on foot

- Delivery of the Local Cycling and Walking Infrastructure Plan
- Bath Quays Bridge
- Loan bike scheme
- Local Plan
- Bath City Centre Security Project
- Bath Clean Air Zone
- Liveable Neighbourhoods
- Freight consolidation, e-cargo bike and last mile delivery support
- Bath High Street Renewal Programme

Developing / Future Projects

Providing for travel by bike and on foot

- Active Travel Fund bids
- Bath River Line
- Promotion and investment in travel by bike
- Improvements to the pedestrian experience
- Improvements to disabled access



Creating improved places to live and work

- Bath City Centre Security Project,
- Liveable neighbourhoods,
- M4 to Dorset Coast Connectivity Study,
- Freight consolidation
- Bath High Street renewal programme.

Creating improved places to live and work

- Innovative parking provision
- Sustainable transport and public realm improvements package
- Milsom Quarter Masterplan
- City Centre Liveable Neighbourhoods
- Liveable Neighbourhoods
- Vehicle Ownership
 - Bath Clean Air Zone and Air Quality Management Area reviews
- Coach strategy
- Demand management
- Rail freight distribution site
- Road freight package



Cleaner, greener school travel

- Providing support and guidance to schools to promote sustainable transport
- School travel plans

Cleaner, greener school travel

- Independent travel to school including:
- improvements to walking and biking facilities close to schools and develop:
- High-quality routes
- Good crossing facilities
- Reduced traffic speeds
- Good levels of security and lighting
- Secure, undercover bike storage at school sites
- An enhanced Bikeability (or similar) programme that will support children's transition to secondary school, giving them the tools and confidence to make those school trips
- Introduction of school streets through requests from the school community



Supporting future mobility

- E-scooter trial
- Go Ultra Low West

Support future mobility

- West of England Future Transport Zone Trial and Delivery



Better public transport options

- MetroWest Phase 1
- Development of the Bus Service Improvement Plan
- West of England Combined Authority 10 Year Rail Delivery Plan

Better public transport options

- Bus shelter and stop improvements
- Upgrading Bath's P&R sites to transport interchanges
- West of England Mass Transit

Connecting Bath to rural communities and market towns through

- Rebalancing an historic dearth in studies on connectivity between Bath and surrounding rural communities. These studies will consider public transport, walking and cycling along key corridors

Connecting Bath to rural communities and market towns through

- Improving facilities to allow access to the corridors on foot and by bike.
- Delivery of rural mobility hubs that improve connectivity between modes, and could include working hubs to reduce the need to commute into the city itself.
- Demand responsive bus services where villages are too far to walk or bike from to access the radial corridors, in line with the BSIP.
- Electric vehicle car clubs.
- Upgraded bus stops.



5.7 Summary

5.7.1 A summary of the transport projects discussed in this section is outlined below.

Table 5-1: Transport Projects Summary

Project Name	Project Location	Programme	Progress	Current Status
Bristol to Bath Strategic Transport Corridor	A4 corridor	Improvements to walking, cycling and bus services along this corridor	Online survey was undertaken 26 th August – 10 th September 2021	Developing
Somer Valley Links	A37, A362 and A367	Improvements to walking, cycling and bus services along this corridor	Online survey was undertaken 22 nd November 2021 – 9 th January 2022	Developing
Liveable Neighbourhoods	Bath, Keynsham and Whitchurch Village	Improving active travel facilities and reducing motorised traffic	Preparing draft designs for each area	Ongoing
Residents' Parking Zone	Bath	Manage parking on residential streets	Phase 1 (five RPZs) Phase 2 (two RPZs)	Operational
Journey to Net Zero	Bath	Reduction in environmental impact related to transport	Unknown	Ongoing

5.7.2 Overall, the strategic transport projects that are currently being undertaken or considered in the District are focused on sustainable movement with active travel improvements, reductions to congestion or improvements to public transport.

5.7.3 Whilst Residents Parking Zones, Liveable Neighbourhoods and the Journey to Net Zero plan are mainly focused around Bath, Somer Valley Links benefits the Somer Valley whilst the Bristol to Bath Strategic Corridor benefits Bath, Keynsham, Saltford and the Hicks Gate areas of the District.

5.7.4 In terms of public transport projects that are being considered, improvements are proposed along three of the main movement corridors in the District. Somer Valley Links and the Bristol Bath Strategic Corridor will include significant benefits to active travel.

5.7.5 There are limited transport improvements proposed outside of key corridors and the urban areas.

6. Strategic Travel Patterns

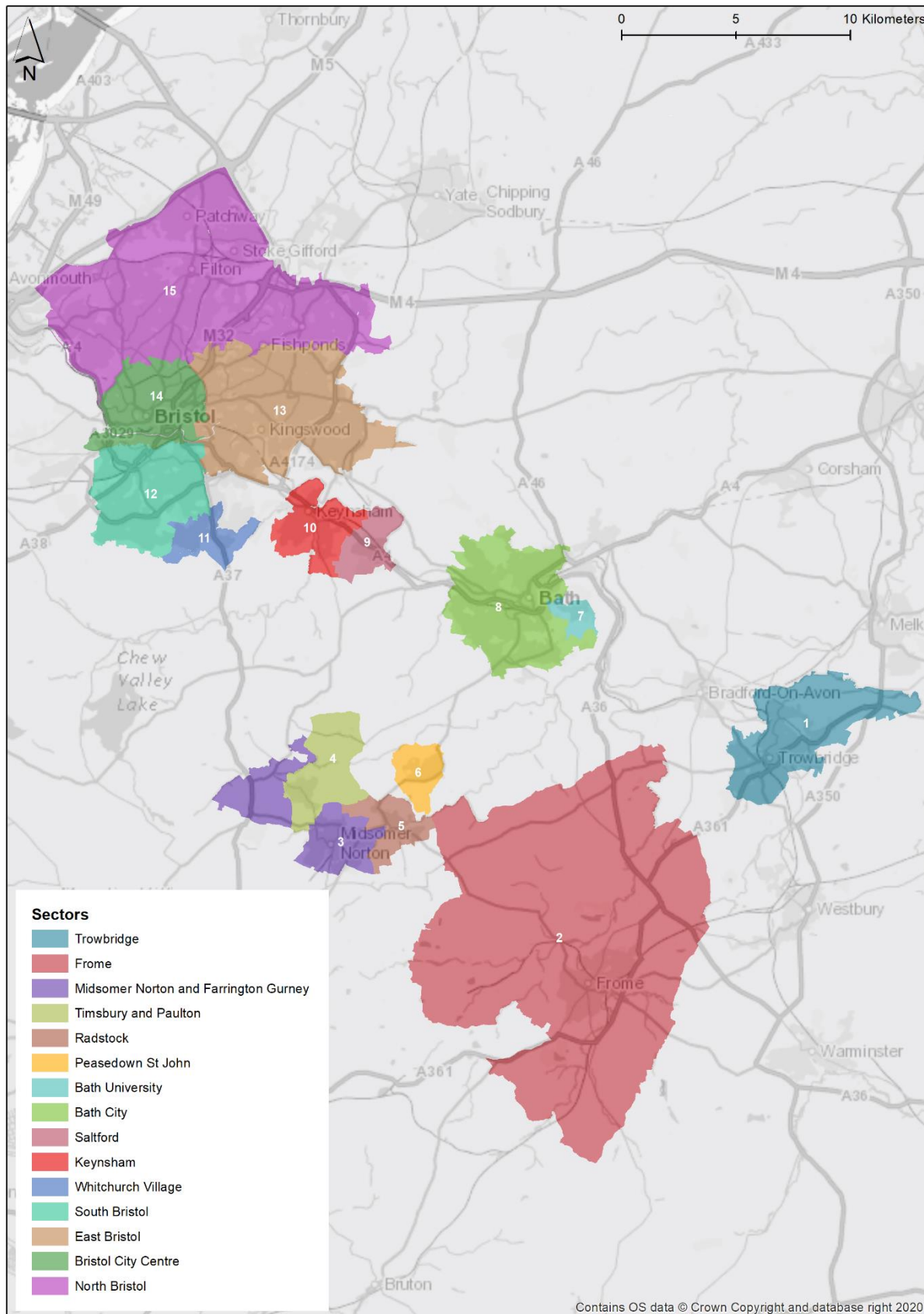
6.1 Introduction

6.1.1 The purpose of this chapter is to determine the origins and destinations of journeys made between different areas in the B&NES district and around its periphery to include Bristol, Frome and Trowbridge. This has been undertaken using the West of England Regional Transport Model (WERTM) for the highway network for the 2042 assessment year and both the AM and PM peak hours. The 2042 assessment year is the horizon year for the local plans in WECA and therefore this assessment year includes all planned future housing and employment growth in the region that is included in the local plan.

6.1.2 Origin and destination data has been extracted from the West of England Regional Transport Model for the following areas, which are also illustrated in **Figure 6-1**:

1. Trowbridge
2. Frome
3. Midsomer Norton and Farrington Gurney
4. Timsbury and Paulton
5. Radstock
6. Peasedown St John
7. Bath University
8. Bath City
9. Salford
10. Keynsham
11. Whitchurch Village
12. South Bristol
13. East Bristol
14. Bristol City Centre
15. North Bristol

Figure 6-1: Origin – Destination Sectors for Analysis



6.1.3 The journeys between the sectors shown in Figure 6-1 with the highest volume of trips have been identified and the analysis is set out in the following sections.

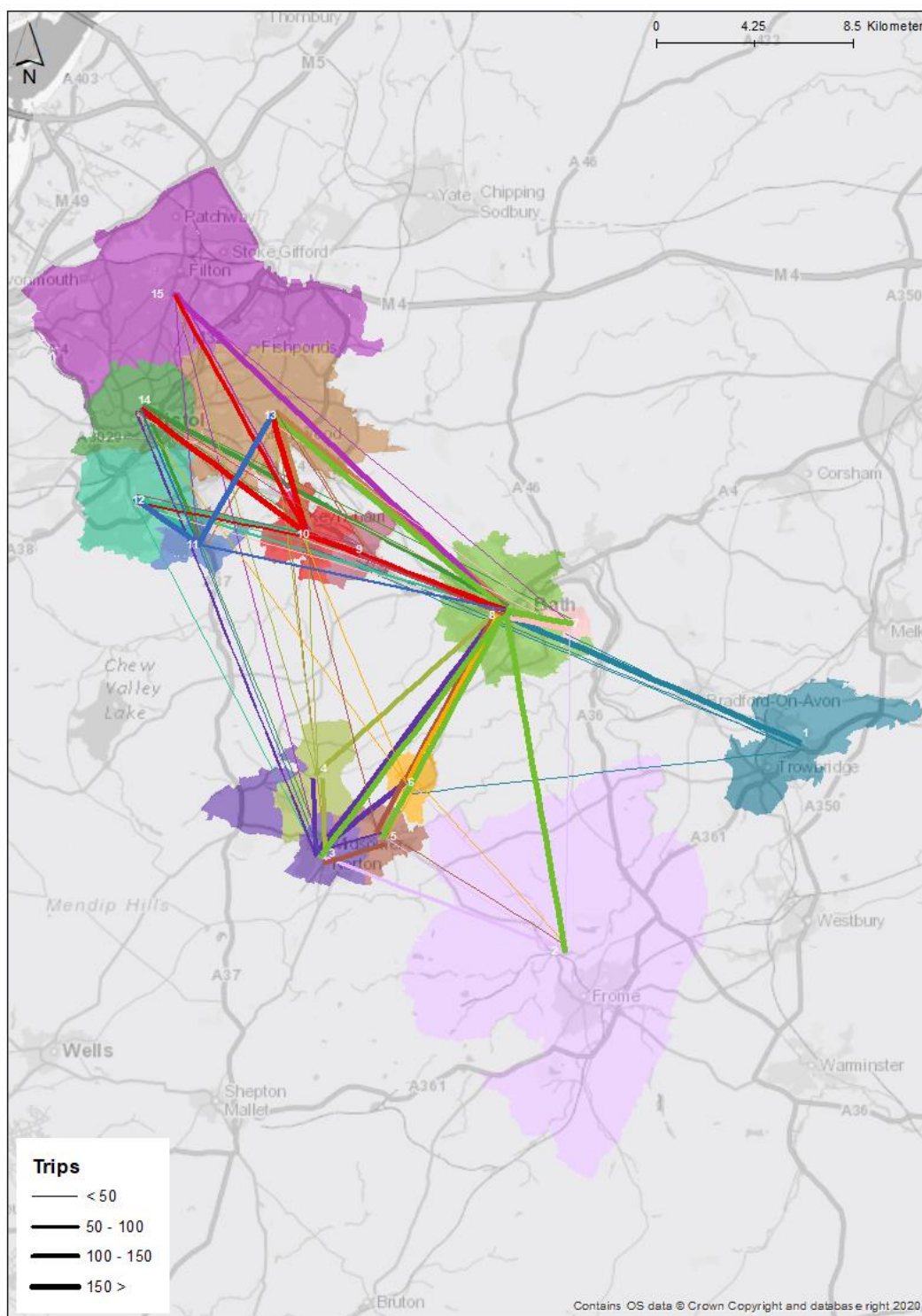
6.2 WERTM Origin and Destination Data

- 6.2.1 WERTM is a strategic transport model developed to support the evidence base for spatial strategies, major scheme business cases, other transport improvements and policy changes. The model has been built in line with DfT's TAG and represents observed generalised travel costs (supply) and transport movements (demand). The origin-destination data in WERTM has been developed using Mobile Phone Origin Destination (MPOD) data. The MPOD matrices have been compiled from weekdays, excluding school holidays and other non-typical days, in March, September and October 2019. This is in accordance with TAG unit M2.2, which recommends a minimum of three months of data is used. The MPOD matrices include all trips starting in, ending in, or passing through the WECA Unitary Authorities (UAs) – Bristol City, South Gloucestershire, and B&NES; and North Somerset; plus a 5-10km buffer around the outer boundary of these local authority areas. A strength of using WERTM for origin-destination data is that it includes all journey purposes instead of focusing solely on journeys to work.
- 6.2.2 This section sets out the results for the District as a whole as well as for the urban area of Bath, Keynsham, the Somer Valley and Whitchurch Village. Although the Hicks Gate area has been identified as a broad location for growth, it has not been specifically included in this analysis because it currently is not a significant trip origin or destination in itself.
- 6.2.3 The results are illustrated on Figures 6-2 to 6-11. The colour of the line indicates the sector where the journey originates, and the thickness of the line indicates the volume of journeys.

B&NES Overview

- 6.2.4 For the B&NES district as a whole, the journeys for the top five movements from each sector has been illustrated on the plan. The interrogation was limited to the top five to allow the key movement patterns to be identified. **Figure 6-2** shows trip data for the whole of the B&NES district in the AM peak hour.

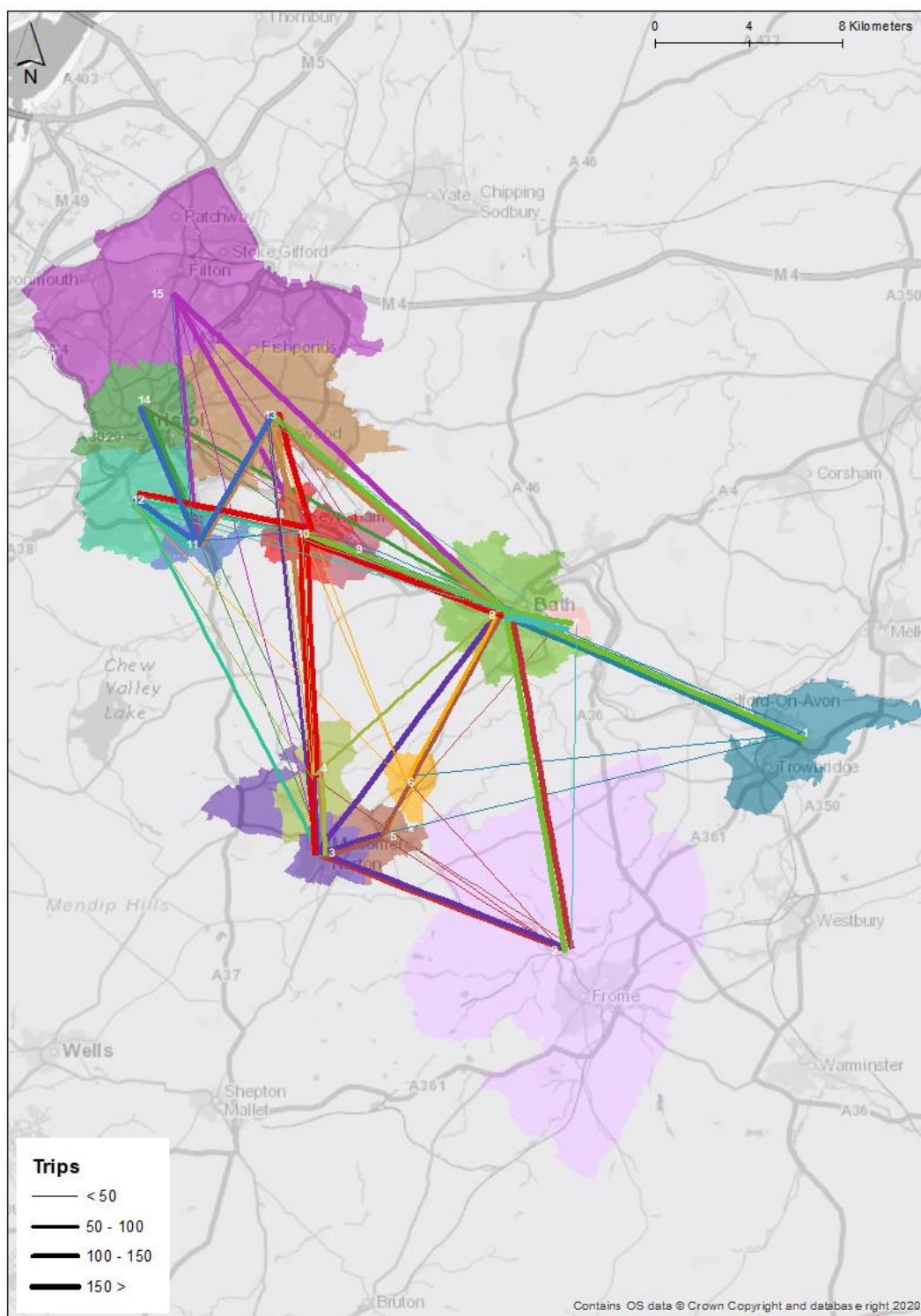
Figure 6-2: Overview of Origin and Destination Trip Data for B&NES in the AM Peak Hour



6.2.5 Figure 6-2 shows that there is a high volume of trips in both directions between Bath and Frome in the AM peak hour. To Bath City Centre, there are a high volume of trips from Trowbridge to the south-east and North Bristol to the north-west. The most popular trips are generally longer distances between Midsomer Norton, Frome, Bristol and Bath. The trip data is analysed in further detail in the below sections.

6.2.6 **Figure 6-3** shows the origin and destination trip data for the B&NES district in the PM peak hour.

Figure 6-3: Overview of Origin and Destination Trip Data for B&NES in the PM Peak Hour



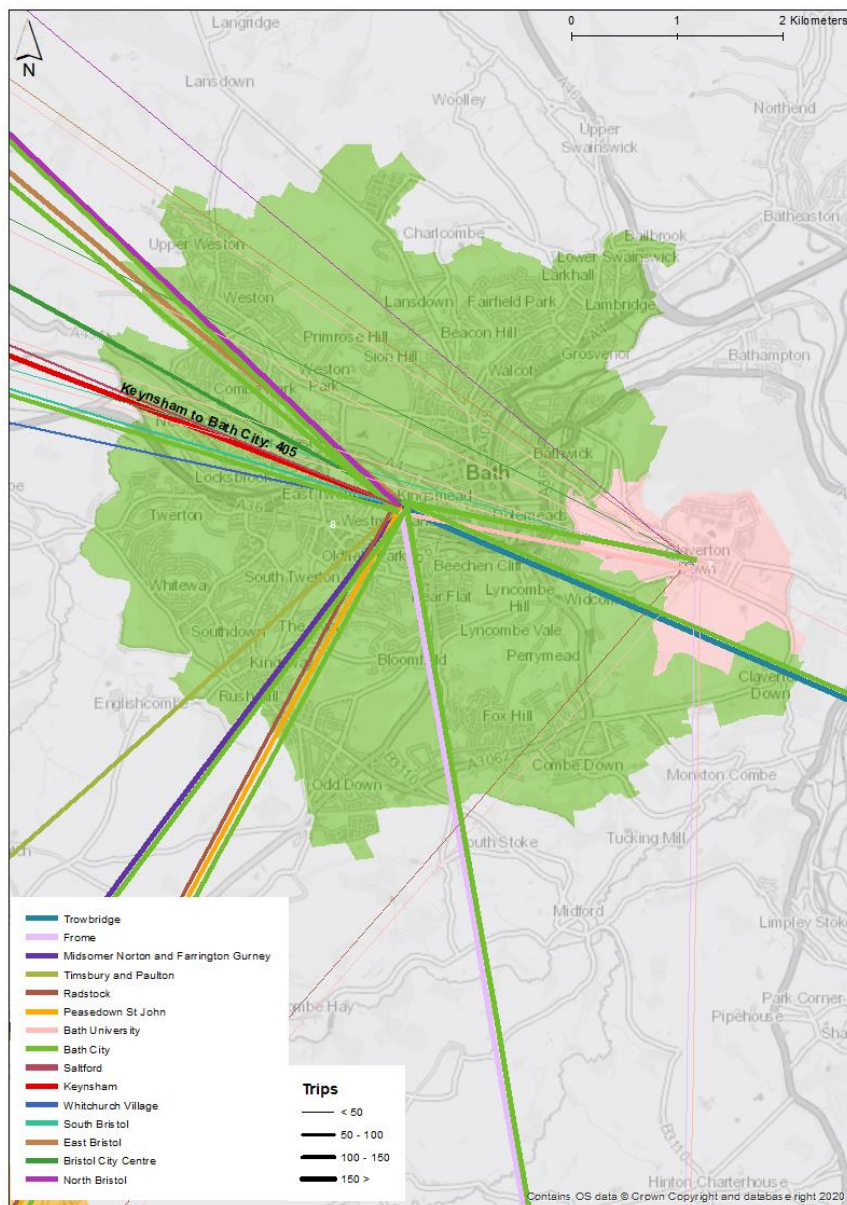
6.2.7 In the PM peak hour, there are a significant number of trips from Keynsham to South Bristol, East Bristol, Midsomer Norton and Bath. There is a high number of trips between Frome and Bath in both directions.

6.2.8 There are a significant number of trips from Bath to Trowbridge in the PM peak hour, with Bath being the main origin and destination from trips to and from Trowbridge. From North Bristol, there are a high number of trips to Keynsham and Bath in the PM peak hour.

Bath

6.2.9 For the sectors within the Bath urban area, the top eight movements originating in each sector have been illustrated on the plan. **Figure 6-4** shows the origin and destination trip data for trips to and from Bath in the AM peak hour.

Figure 6-4: Origin and Destination Trip Data from Bath in the AM Peak Hour



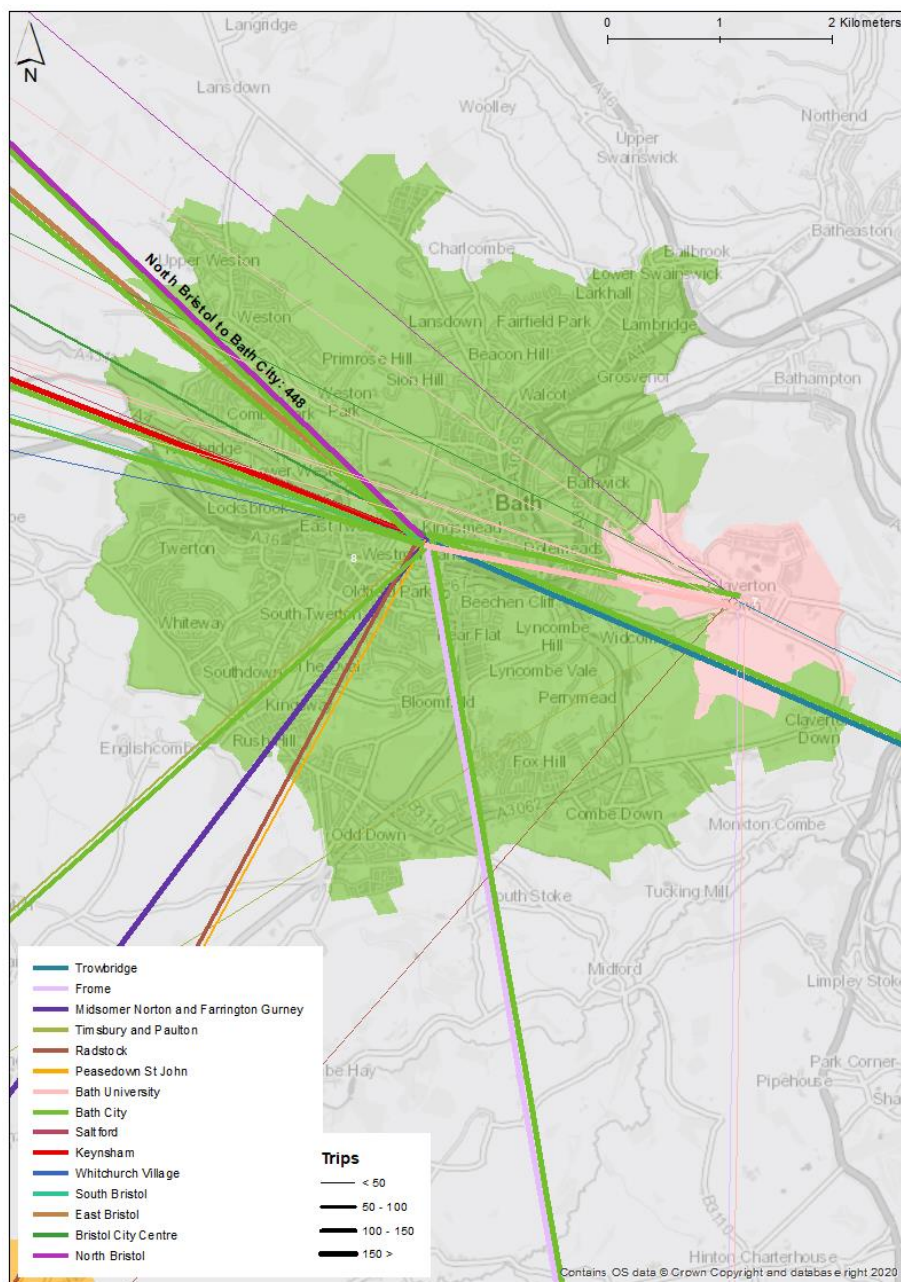
6.2.10 In the AM peak hour, there are a significant number of trips in both directions between Frome and Bath. There are also a high number of trips in both directions between Trowbridge, Midsomer Norton, Farrington Gurney and Bath.

6.2.11 To the northwest, trips between North Bristol and Bath have a high frequency in the AM peak hour. There is also a significant number of trips from Keynsham to Bath. There are a moderate number of trips (between 50 and 100) from Radstock and Peasedown St John to Bath in the AM peak hour.

6.2.12 In reference to Bath University, there is a high frequency of trips from Bath to Bath University in the AM peak hour. Bath University does not generate a high number of trips from elsewhere in the AM peak hour.

6.2.13 **Figure 6-5** shows the origin and destination trip data for Bath in the PM peak hour.

Figure 6-5: Origin and Destination Trip Data for Bath in the PM Peak Hour



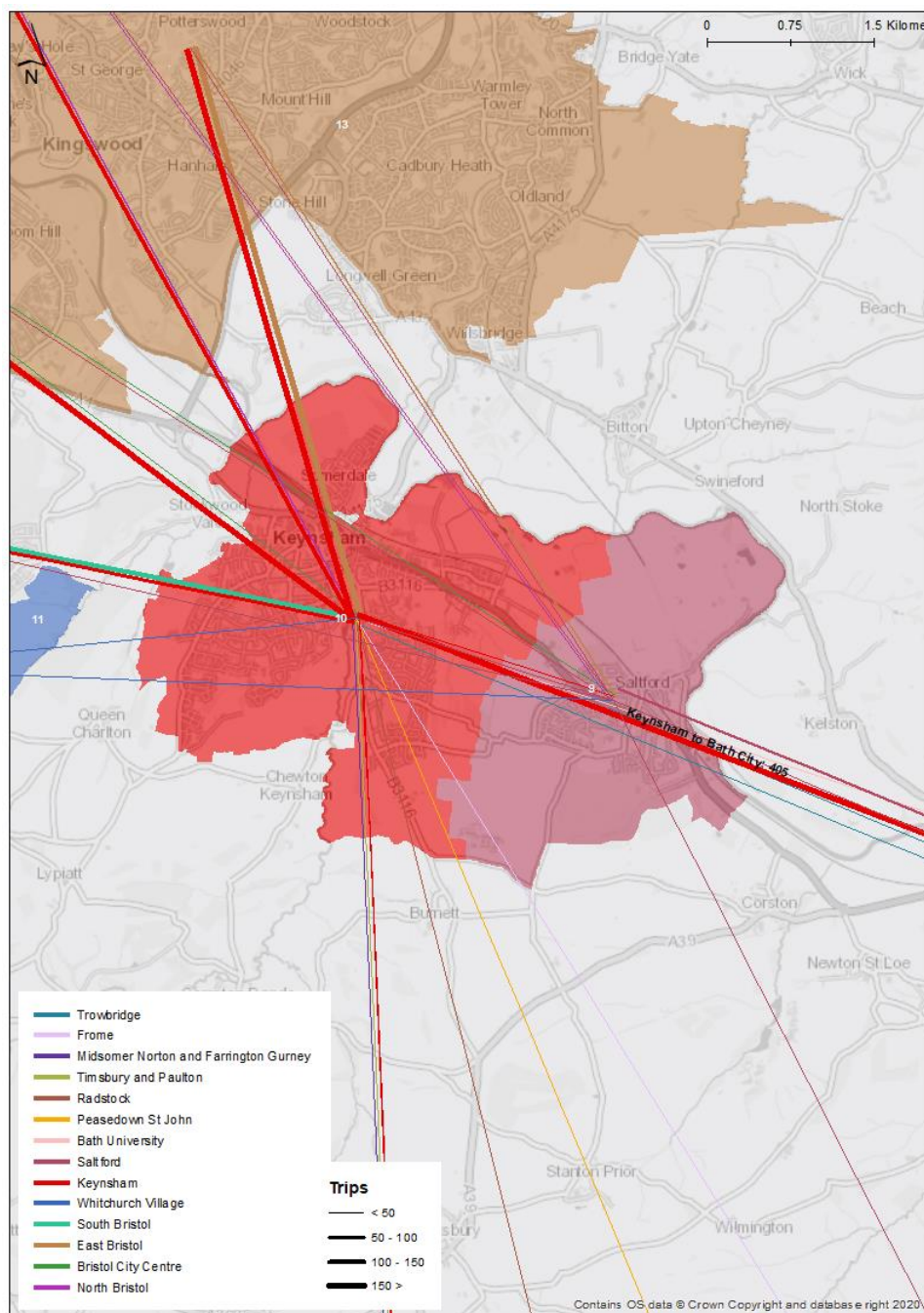
6.2.14 In comparison to the AM peak hour, there is a similar dispersion of trips to and from Bath in the PM peak hour. A difference is that in the PM peak hour, there is a greater number of trips in both directions to and from Bath and Bath University.

6.2.15 The greatest number of trips includes to and from North Bristol, East Bristol, Keynsham, Frome and Trowbridge. There is also a high number of trips originating from Midsomer Norton and Farrington Gurney to Bath. There are fewer trips from Bath to Midsomer Norton and Farrington Gurney in the PM peak hour.

Keynsham

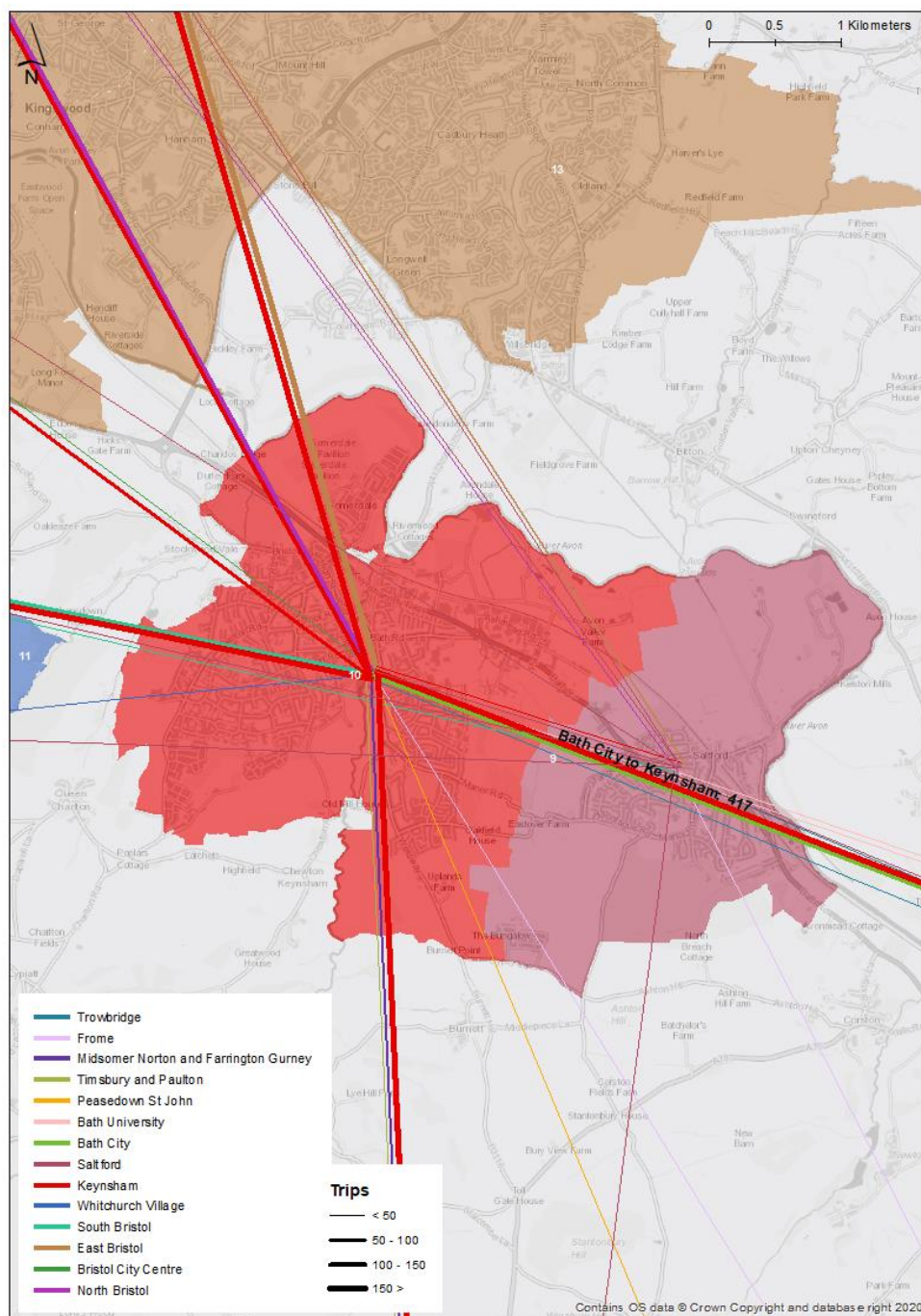
6.2.16 For the sectors within the Keynsham area, the top eight movements originating in each sector have been illustrated on the plan. **Figure 6-6** shows the origin and destination trip data for Keynsham in the AM peak hour.

Figure 6-6: Origin and Destination Trip Data for Keynsham in the AM Peak Hour



- 6.2.17 Figure 6-6 indicates that the most popular destinations for trips that originate from Keynsham in the AM peak hour are East Bristol, North Bristol, Bristol City Centre and Bath.
- 6.2.18 There are fewer trips with Keynsham as the destination in the AM peak hour. Most of the trips to Keynsham in the AM peak hour originate from North Bristol and Bristol City Centre. There are also few trips to and from Frome, Midsomer Norton, Farrington Gurney, Peasedown St John and Whitchurch Village in the AM peak hour.
- 6.2.19 **Figure 6-7** shows the dispersion of trips to and from Keynsham in the PM peak hour.

Figure 6-7: Origin and Destination Trip Data for Keynsham in the PM Peak Hour



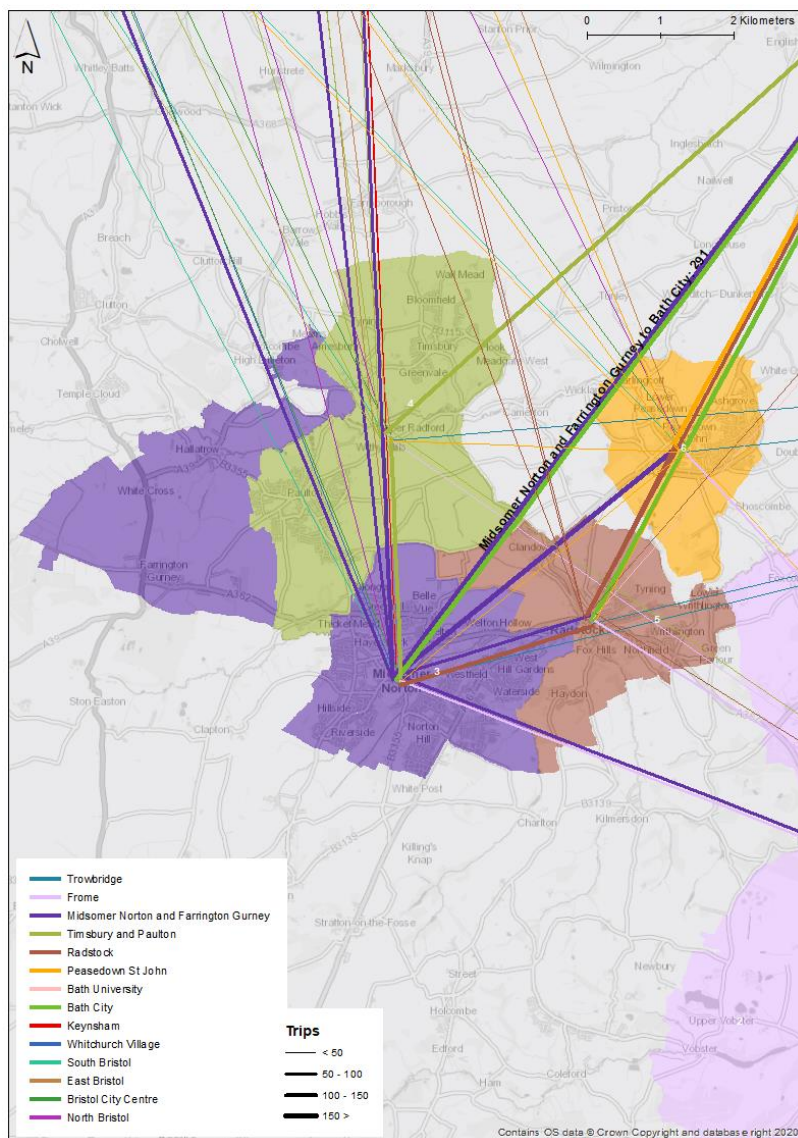
6.2.20 In the PM peak hour, origin and destination data shows that there is a greater number of trips from Keynsham in comparison to the AM peak hour. There is a high number of trips between Keynsham and East Bristol, North Bristol, South Bristol, Midsomer Norton, Farrington Gurney and Bath in both directions.

6.2.21 There is a moderate number of trips between Bristol City Centre and Keynsham in the PM peak hour, whilst there are relatively few (<50) trips from Peasedown St John and Frome to Keynsham in the PM peak hour. Saltford does not generate a significant number (<50) of trips in the AM or PM peak hours.

Somer Valley

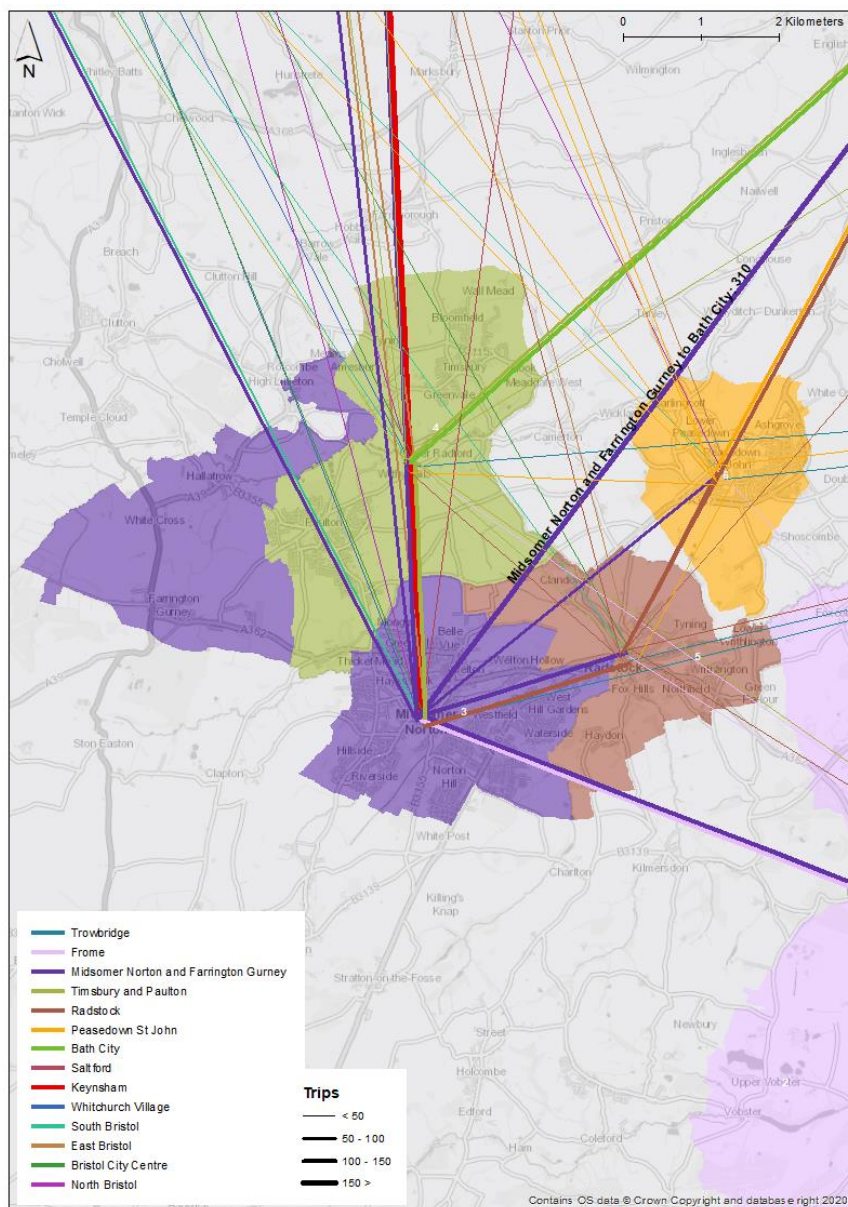
6.2.22 For the sectors within the Somer Valley area, the top eight movements originating in each sector have been illustrated on the plan. **Figure 6-8** shows the dispersion of trips to and from the Somer Valley in the AM peak hour.

Figure 6-8: Origin and Destination Trip Data for the Somer Valley in the AM Peak Hour



- 6.2.23 In the AM peak hour, there are a significant number of trips from Midsomer Norton to Peasedown St John and to Bath. There is also a high number of trips from Midsomer Norton to Keynsham in the AM peak hour. In terms of attracting trips, the most popular origins of trips to Midsomer Norton is Peasedown St John, Bath, with Keynsham and Frome having slightly less trips.
- 6.2.24 In terms of Radstock, there are a high number of trips originating here to Midsomer Norton and Peasedown St John, with fewer trips continuing to Bath. There are no other significant destinations from Radstock in the AM peak hour. However, Radstock does attract a significant number of trips from Bath in the AM peak hour.
- 6.2.25 From Peasedown St John, there are a significant number of trips between Peasedown St John and Bath in both directions. Peasedown also attracts a significant number of trips from Radstock. There are a wide range of trips to and from Peasedown in the AM peak hour, but no other origins / destination has over 50 trips in the AM peak hour.
- 6.2.26 There are approximately between 50 and 100 trips from Tisbury and Paulton to Bath in the AM peak hour. No other origins / destination has a frequency of over 50 trips in the AM peak hour.
- 6.2.27 **Figure 6-9** shows the dispersion of trips to and from the Somer Valley in the PM peak hour.

Figure 6-9: Origin and Destination Trip Data for the Somer Valley in the PM Peak Hour

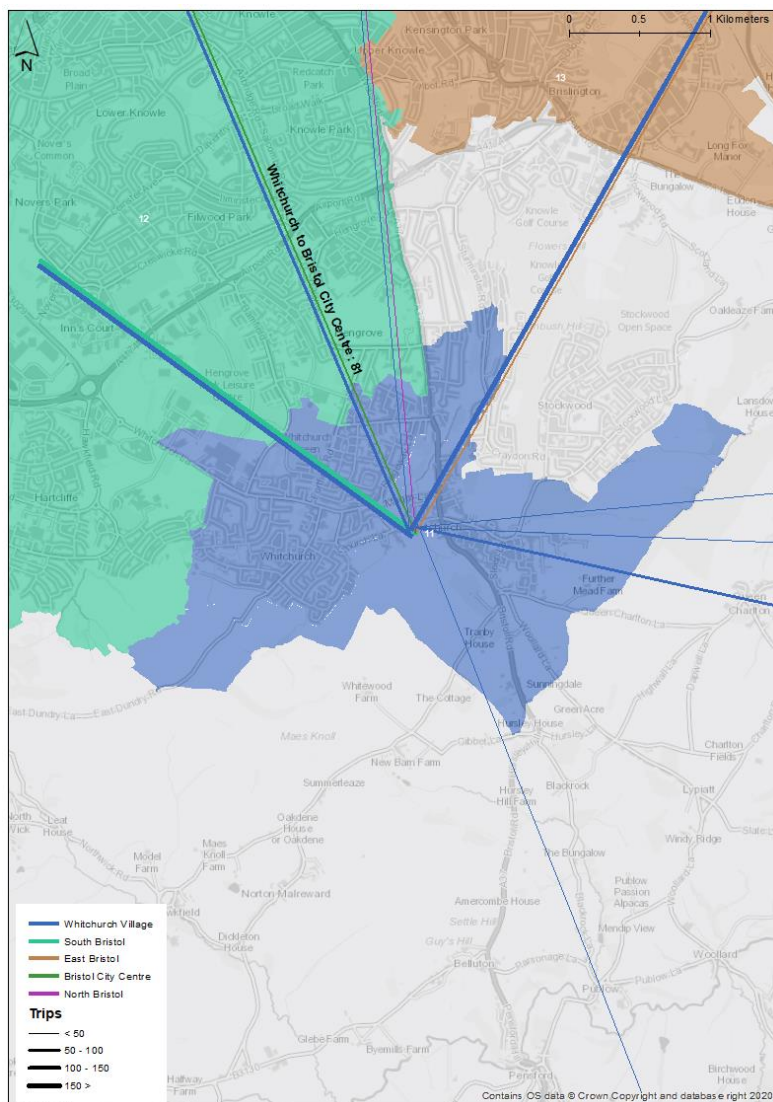


- 6.2.28 There are a number of differences between the AM and PM peak hour trip data for the Somer Valley. From Midsomer Norton, there is a significant number of trips to Bath in the PM peak hour, however there are very few from Bath to Midsomer Norton. There continues to be a high number of trips in both directions between Midsomer Norton, Frome and Radstock.
- 6.2.29 There is an increase in the number of trips in both directions between Midsomer Norton, South Bristol, Timsbury and Paulton in the PM peak hour. There is also an increase in the number of trips from Keynsham to Midsomer Norton.
- 6.2.30 There is a significant decrease in the number of trips from Bath to Peasedown and Radstock in the PM peak hour, however there is a high number of trips from Radstock to Bath in the PM peak hour. There is also an increase in the number of trips from Bath to Timsbury and Paulton in the PM peak hour.

Whitchurch Village

- 6.2.31 For the sectors within the Whitchurch Village area, the top eight movements originating in each sector have been illustrated on the plan. Figure 6-10 shows the dispersion of trips to and from Whitchurch Village in the AM peak hour.

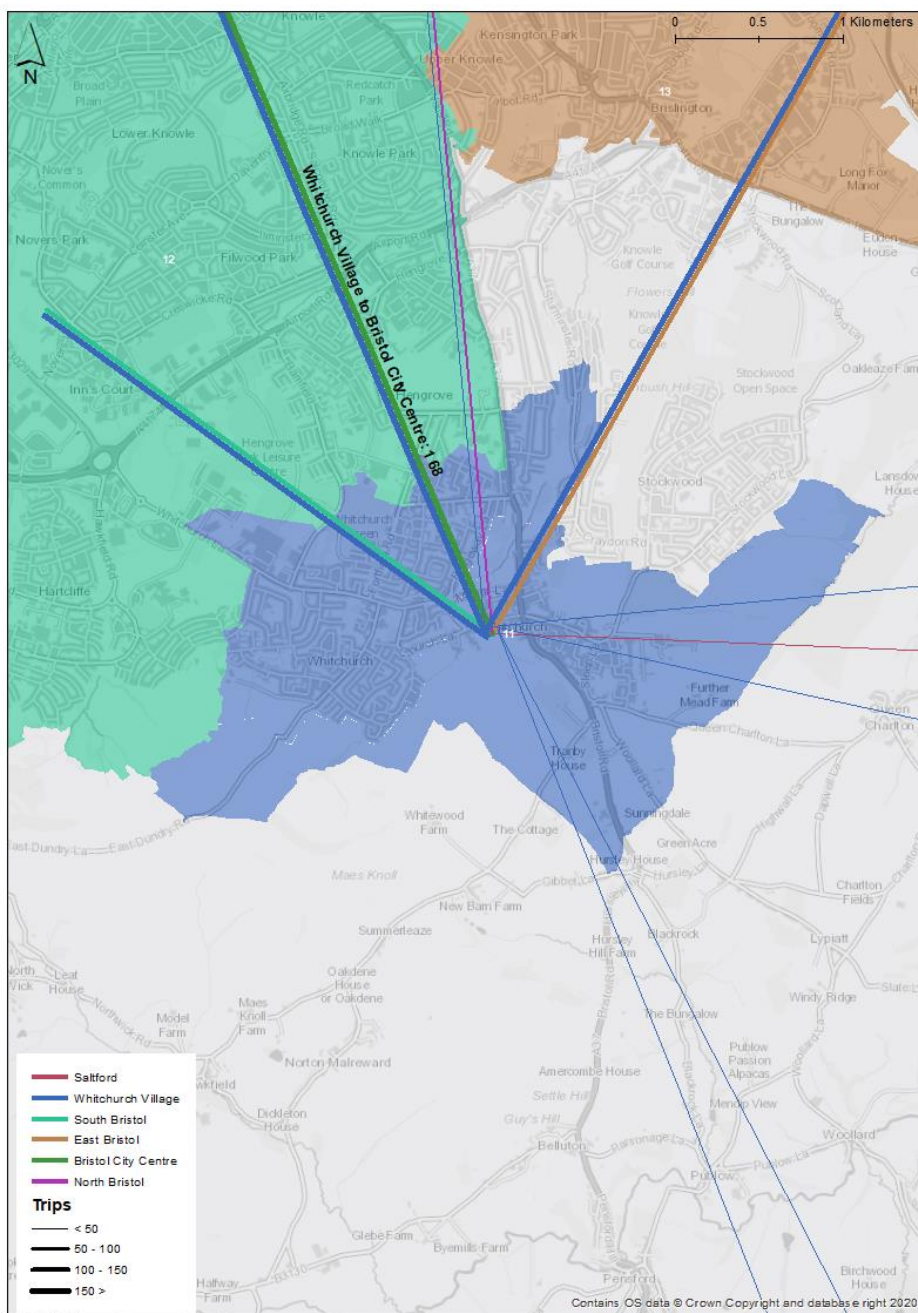
Figure 6-10: Origin and Destination Trip Data for Whitchurch in the AM Peak Hour



6.2.32 In the AM peak hour, the majority of trips from Whitchurch Village are outwards, with popular destinations being East Bristol and South Bristol. There is also a high number of trips from South Bristol to Whitchurch Village in the AM peak hour. As Figure 6-10 shows, South Bristol is in close proximity to the west of Whitchurch Village. There are a small number of trips between Whitchurch Village, Bristol City Centre and Keynsham in both directions.

6.2.33 **Figure 6-11** shows the dispersion of trips to and from Whitchurch Village in the PM peak hour.

Figure 6-11: Origin and Destination Trip Data for Whitchurch in the PM Peak Hour



6.2.34 In the PM peak hour, there are a greater number of trips between Whitchurch Village and Bristol City Centre in both directions. There is a high number of trips between South Bristol and Whitchurch Village in the PM and AM peak hours.

6.2.35 Figure 6-11 shows that there are a greater number of trips from Keynsham and Saltford to Whitchurch Village, however these still have a relatively low frequency (<50) in the AM and PM peak hours.

Summary

6.2.36 The WERTM origin and destination data indicates that there is a high volume of trips in both directions between Bath and Frome in the AM peak hour. To Bath City Centre, there are a high volume of trips from Trowbridge to the north-east and North Bristol to the north-west. The most popular trips are generally longer distances between Midsomer Norton, Frome, Bristol and Bath. Keynsham is the origin of a large number of trips to Bath City Centre and Bristol.

- 6.2.37 In the PM peak hour, there are a significant number of trips from Keynsham to South Bristol, East Bristol, Midsomer Norton and Bath. There is a high number of trips between Frome and Bath in both directions. In addition, WERTM indicates that there are a significant number of trips from Bath to Trowbridge in the PM peak hour, with Bath being the main origin and destination for trips to and from Trowbridge. From North Bristol, there are a high number of trips to Keynsham and Bath in the PM peak hour.

7. Summary and Next Steps

- 7.1.1 AECOM has been commissioned by Bath and North East Somerset Council to undertake a Mobility Study. This forms part of the evidence base for the New Local Plan which will cover the period between 2022-2042. The New Local Plan allocates sites for development, with an associated robust evidence base and mitigation strategy to demonstrate sustainable delivery.
- 7.1.2 The purpose of this Study is to define the transport characteristics that exist within the B&NES district. The intention is that it reviews the existing transport evidence available, to allow gaps in the existing transport provision to be identified, which can be addressed through the Local Plan process. It provides a high level strategic review across the District, with a particular focus on the four broad locations for growth which are; the Hicks Gate area, Keynsham and Saltford, Somer Valley, and Whitchurch Village.
- 7.1.3 This Study is the Stage 1 Report which provides a review of the evidence available. It is intended that a follow up Stage 2 Report will be prepared to examine the transport opportunities, supported by outputs from the West of England Regional Transport Model.
- 7.1.4 There are significant differences in the transport characteristics of the district, with greater levels of accessibility and transport provision in the urban areas than the rural results in different travel habits with those in urban areas being more sustainable than those in rural areas.
- 7.1.5 In terms of active travel infrastructure, there are a series of walking and cycle routes within the District. These are mainly located in growth areas. There are four National Cycle Routes in the District, routes 3, 4, 24, and 244 and an extensive PRow network.
- 7.1.6 There are a series of bus routes within the District, predominantly providing routes to/from Bath and Bristol, with also a large number of bus routes to and from parts of the Somer Valley. The towns in the district have a reasonable level of bus provision, however there is a lack of bus services in the rural areas.
- 7.1.7 There are four rail stations (Keynsham, Oldfield Park, Bath Spa and Freshford) located within the District with Bristol Temple Meads Station also readily accessible from parts of the District.
- 7.1.8 There are no motorways that run through the district. The closest motorways are the M4 and M32 to the north and the M5 to the west, which are managed by National Highways.
- 7.1.9 Data extracted from WERTM indicates that there is congestion within the District during the AM and PM peak hours in particular along the strategic roads, including the A4 and A37. In addition to the junctions at the outskirts of Bath and Bristol where traffic flows are high.
- 7.1.10 The results from the census data analysis show that B&NES has a lower car driver mode share for the journeys that were made at 62.5% compared to the average for both the South West Region at 70.4% and Great Britain as a whole at 65.6%. In the 2011 Census, all three areas had a higher proportion of people driving when compared with 2021, but B&NES was higher (at 68.3%) than both the South West Region (67.3%) and the Great Britain average (60.8%).
- 7.1.11 The one mode share category that B&NES was significantly above the South West region and GB national average was the proportion of respondents that travel to work on foot, with 11.4% of the total as compared to 9.2% and 7.6% respectively. This is likely because of the high proportion of respondents within the Bath urban area who are able to access employment opportunities on foot.
- 7.1.12 The 'Distance Travelled to Work' dataset shows that B&NES has a higher proportion of residents who travel shorter distances to work than the GB national average (for trips up to 2km, B&NES recorded 27.4% compared to 20.3% for the GB national average). As

compared to the 2011 Census, in B&NES there has been an increase in trips under 2km (1.0%) and between '2km and 5km' (2.7%), with a reduction in longer trips.

- 7.1.13 The 'Number of Cars or Vans Available (i.e. Car Ownership) dataset shows that B&NES, the South West region and the GB national average have seen a reduction in the number of households with access to no car (-1.8%, -2.1% and -2.3% respectively) or one car (-0.6%, -1.8% and -0.9%, respectively), whilst all have seen an increase in households with access to two (0.8%, 1.6% and 1.4% respectively) or 3 or more cars (1.6%, 2.3% and 1.8% respectively) between 2011 and 2021. The 'Location of Workplace' dataset indicates that the majority of employment opportunities for residents in the District are in Bath (67% of the total) and Bristol (11% of the total). This means that these are key destinations for residents with a high proportion of trips being made to / from these locations in the traditional weekday highway AM and PM peak hours.
- 7.1.14 There are a number of current projects within the District that set out to improve transport infrastructure, these include projects to improve active travel and public transport. These transport projects are focused on improvements within urban areas and providing better connections along key corridors between Bristol, Bath and the Somer Valley. It has been identified that there is a lack of existing projects to improve the connectivity of the rural areas of the District.
- 7.1.15 The WERTM origin and destination data indicates that there is a high volume of trips in both directions between Bath and Frome in the AM peak hour. To Bath City Centre, there are a high volume of trips from Trowbridge to the north-east and North Bristol to the north-west. The most popular trips are generally longer distances between Midsomer Norton, Frome, Bristol and Bath. Keynsham is the origin of a large number of trips to Bath City Centre and Bristol.
- 7.1.16 In the PM peak hour, there are a significant number of trips from Keynsham to South Bristol, East Bristol, Midsomer Norton and Bath. There is a high number of trips between Frome and Bath in both directions. In addition, WERTM indicates that there are a significant number of trips from Bath to Trowbridge in the PM peak hour, with Bath being the main origin and destination for trips to and from Trowbridge. From North Bristol, there are a high number of trips to Keynsham and Bath in the PM peak hour.

7.2 Next Steps

- 7.2.1 The views and aspirations of local community members, stakeholders and experts are important to ensure that this Study has fully captured the transport challenges within the District.
- 7.2.2 A Stage 2 Report will be prepared taking into account the feedback received through the consultation process. The purpose of the Stage 2 report will be to examine the opportunities to improve sustainable transport across the District, supported by modelling outputs from WERTM.

