WSP

Western Gateway
Sub-national Transport Body

Western Gateway Strategic Transport Body

Strategic Investment Plan

Health Impact Assessment

Western Gateway
Sub-national Transport Body

Western Gateway Strategic Transport Body

Strategic Investment Plan

Health Impact Assessment

Type of document (version) Confidential

Project no. UK302778

Our Ref. No. 001

Date: December 2024

WSP

Kings Orchard
1 Queen Street
Bristol
BS2 0HQ

Phone: +44 117 930 6200

WSP.com

Quality control

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft	Final for consultation		
Date	05 December 2024	18 December 2024		
Prepared by	EB	EB		
Checked by	CB	CB		
Authorised by	MD	AP		
Project number	UK302778	UK302778		
Report number	001	002		

Contents

1 Executive Summary

1.1 Overview

1.1.1. This Health Impact Assessment (HIA) assesses the potential health and wellbeing impacts of the proposed Western Gateway Strategic Investment Plan (SIP) and identifies opportunities for enhancing the positive health impacts and reducing any negative impacts.

1.1.2. The objectives of this HIA were to;

- Identify key negative and positive health and wellbeing impacts of the plan; and
- Develop, where feasible, recommendations for mitigating potential negative health and wellbeing impacts, and enhance any potential positive impacts identified.

1.1.3. An assessment of health, population, environment and deprivation was undertaken, focusing on the health outcomes upon selected vulnerable groups.

1.2 Summary findings

1.2.1. The single greatest potential positive outcome of the SIP proposal on health has been assessed as the direct beneficial health impacts arising from the improvements in air quality brought about by the modal shift towards public transport and active travel encouraged by the majority of proposals.

1.2.2. Additional potential positive health impacts as a consequence of the SIP proposals were assessed as direct benefits arising from improved access to education and employment opportunities, as well as key services like healthcare facilities. Reduced housing costs enabled by out-of-city living was also identified as a positive health effect.

1.2.3. In terms of negative impacts, although the freight related SIP proposal intends to shift road freight to rail, it is still anticipated that some level of adverse effect to air quality and noise pollution will occur, as well as disruption to the tranquillity of the local area.

1.3 Recommendations

1.3.1. Recommendations made as a result of this HIA include ensuring consideration of community safety, such as through the inclusion of additional lighting provision, is given for any transport enhancements. Another recommendation is for any route planning of any public transport provision is done with consideration of local flood mapping, so as to ensure transport routes avoid high flood-risk areas.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
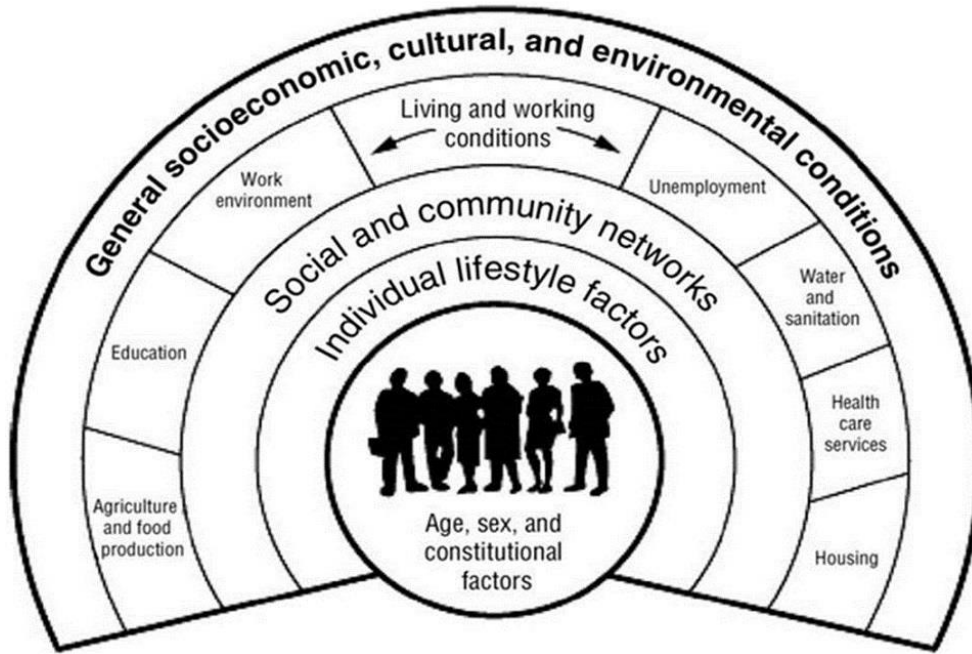December 2024
Page 1 of 86

2 Health Impact Assessment

2.1 Overview

2.1.1. HIA is a systematic approach to identifying the differential health and wellbeing impacts, both positive and negative, of projects and plans.

2.1.2. HIA uses both qualitative and quantitative evidence, including public and other stakeholders' perceptions and experiences, as well as public health knowledge. It is particularly concerned with the distribution of effects within a population, as different groups are likely to be affected in different ways, and therefore looks at how health and social inequalities might be reduced or increased by a proposed project or plan.

2.1.3. The aim of HIA is to support and add value to the decision-making process by providing a systematic analysis of the potential impacts, as well as recommending opportunities, where appropriate, to enhance positive impacts, mitigate negative impacts and reduce health inequalities.

2.1.4. The World Health Organisation defines health as:

"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity[1]"..

2.1.5. The health status of a population can be adversely affected by exposure to risks and conditions such as noise, vibration and air pollution, and beneficially affected by conditions such as social support and improvements in public infrastructure:

- Health Determinants are the personal, social, cultural, economic and environmental factors that influence the health of individuals or a population. In addition to physical health, these include a range of other factors such as income, employment, housing and education;
- Health Impact is the direct (e.g. release of pollutant) or indirect cumulative effect (e.g. loss of jobs or income) of a proposal on the health of individuals or a wider population. The impact may be either short or long term.
- Health Inequality can be defined as the difference in either health status, or the distribution of health determinants, between different population groups. Some health inequalities are unavoidable, others are not so and may well be unjust and unfair.

2.1.6. Health and health inequalities are influenced by interactions between a spectrum of health determinants which include: income and poverty, housing, employment, the environment,

---

[1] World Health Organisation. (n.d.). Constitution. Available at: https://www.who.int/about/governance/constitution (Accessed: 04/12/2024)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 2 of 86

transport, education, access to health services and the broader influence of well-being. The broad social and economic circumstances that together determine the quality of the health of the population are known as the 'social determinants of health' These are shown in **Figure 2-1** below.

Figure 2-1 – The Dahlgren and Whitehead model of health determinants

Source: Dahlgren and Whitehead (1991)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 3 of 86

3 Project Background

3.1 Overview

3.1.1. Western Gateway Sub-national Transport Body (STB) published their Strategic Transport Plan in March 2024, and are now developing the associated Strategic Investment Plan (SIP) which will provide the framework for investment in strategic transport infrastructure for the period 2025-2035 to deliver on the objectives of the STP.

3.1.2. The Western Gateway STB is formed by an alliance of eight Local Authorities and one Combined Authority that have committed to work together to drive innovation, facilitate the transition to a decarbonised transport system, maximise economic growth and improve industrial productivity by strengthening travel connections to local, national and international markets.

3.1.3. The authorities that make up the STB are:

- Bath and North East Somerset Council;
- Bournemouth, Christchurch & Poole Council (BCP);
- Bristol City Council;
- Dorset Council;
- Gloucestershire County Council;
- North Somerset Council;
- South Gloucestershire Council;
- Wiltshire Council; and
- West of England Combined Authority (WECA; representing Bath and North East Somerset, Bristol, and South Gloucestershire).

3.1.4. The Western Gateway STB Region and its relationship with the other STBs is shown in **Figure 3-1** overleaf.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 4 of 86

Figure 3-1 – Western Gateway STB Region[2]
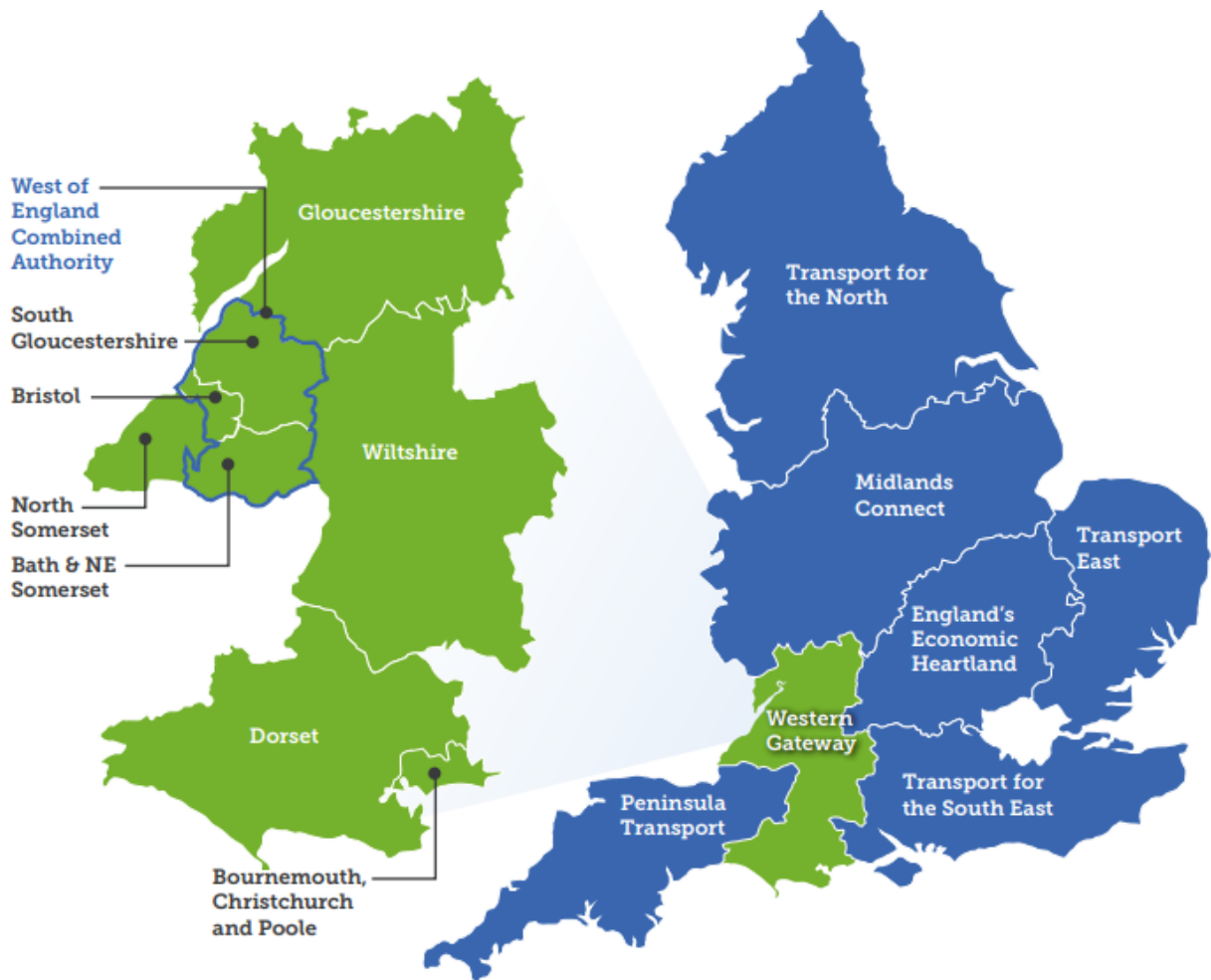
3.2 Western Gateway STB Strategic Investment Plan

3.2.1. Western Gateway published their Strategic Transport Plan (STP)[3] in March 2024. The STP provides a link between national policy and local strategy. It interprets national policy for a regional context to guide future transport investment and provide a supporting context for the nine Local Authorities in producing their Local Transport Plans. The STP is aligned with plans produced by National Highways and Network Rail

---

[2] Western Gateway (2024) Strategic Transport Plan 2024-2050. Available online at:
https://westerngatewaystb.org.uk/strategy/western-gateway-strategic-transport-plan/
[3] Western Gateway Sub-National Transport Body , Strategic Transport Plan 2020-2025. Available at:
https://westerngatewaystb.org.uk/strategy/2020-2025-western-gateway-strategic-transport-plan/

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 5 of 86

3.2.2. The STP identified short-term strategic transport priorities as well as providing a long-term plan, for strategic transport corridors within the Western Gateway STB Region. The five **key themes/aims** within the STP are:

- **Sustainable growth and economy**: Supporting sustainable housing and employment growth by improving connectivity to enable all parts of our region to flourish
- **Decarbonisation and air quality**: Delivering the changes needed to reduce emissions from transport and achieve net zero carbon.
- **Access to services and opportunities**: Enabling access to services and opportunities for everyone while reducing the need to drive.
- **Facilitate strategic north-south movements**: Improving transport links from north to south to ensure prosperity and opportunity for all.
- **Movement of goods**: Easing freight movements on our strategic routes and supporting a shift to rail, coastal shipping and alternative fuels.

3.2.3. The emerging SIP provides the framework for investment in strategic transport infrastructure to deliver on the objectives of the STP and set out the priorities for transport interventions across the Western Gateway STB region.

3.2.4. The vision and objectives for the SIP remain the same as those of the STP. The vision for the STP and SIP is as follows:

 "A resilient transport network that works for everyone and is fit for the future, helping people and businesses throughout the Western Gateway to thrive while protecting our environment."

3.2.5. To achieve this vision, the SIP seeks to identify proposals that can deliver the objectives outlined below:

1. Support the economy to thrive and level up across the whole region, particularly where prosperity is constrained by poor connectivity.

2. Facilitate sustainable visitor access to our key tourism areas.

3. Maintain and improve sustainable access for goods and people to national and international gateways.

4. Reduce annual regional transport carbon emissions from 6,250kt CO2e (2019) to net zero by 2050.

5. Minimise embodied carbon.

6. Deliver the infrastructure/conditions/services necessary to prioritise a shift to low carbon modes.

7. Improve access to essential goods, services and opportunities in target areas.

8. Maintain and improve access to important regional and national destinations through our strategic transport networks.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 6 of 86

9. Improve north-south rail and road links between the Midlands and South Coast on identified corridors/routes delivering social and economic benefits & levelling up southern parts of the region.

10. Improve journey time reliability on strategic routes (identified in STP).

11. Increase ability for goods moved by road to shift to rail or coastal shipping.

12. Improve HGV facilities on strategic freight routes to increase attractiveness, discouraging running on unsuitable alternatives.

3.2.6.   These 12 objectives are drawn from the STP and relate to the delivery of the STP's five key aims.

Overview of SIP Options Proposals

3.2.7.   Western Gateway STB' SIP sets out a list of regional transport proposals for the period 2025-2035, prioritised according to their potential to cost-effectively deliver the aims and objectives of the adopted STP.

3.2.8.   101 proposals were submitted to the STB by the nine Local Authorities in the region, National Highways and Network Rail. Of the 101 submitted, 38 proposals have been identified as the priority for future investment recommendations.

3.2.9.   The current priority list includes a range of interventions including public transport, mass transit, transport hubs and interchanges, active travel measures and road improvements (including capacity and safety improvements), rail stations and services improvements.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 7 of 86

4 Scope and Methodology

4.1 Scope

4.1.1. A rapid, desktop HIA was undertaken during November 2024. The key tasks for this HIA were to:

- Develop a summary health and wellbeing baseline and population profile of the Western Gateway STB region;
- Assess the potential health and wellbeing impacts of the plan, and the nature and likelihood of such impacts; and

Develop recommendations for minimising potential negative, and maximising potential positive, health and wellbeing impacts.

Study area

4.1.2. This is a rapid desk-based assessment of the direct and indirect impacts which are likely to be experienced by those communities that the proposed plan is for. The study area for this assessment is comprised of the Western Gateway STB region and its resident, working and visiting population.

4.1.3. The population scope of this HIA is residents of:

- Bath and North East Somerset Council (B&NES);
- Bournemouth, Christchurch & Poole Council (BCP);
- Bristol City Council;
- Dorset Council;
- Gloucestershire County Council;
- North Somerset Council;
- South Gloucestershire Council;
- Wiltshire Council; and
- West of England Mayoral Combined Authority (West of England MCA), which comprises B&NES, Bristol City Council and South Gloucersterhire Council.

4.1.4. The following population groups have been identified as being particularly vulnerable to the draft SIP:

- Older people;
- Children and young people;
- Black and Ethnic Minority groups;
- Disabled people with a physical or mental impairment;
- People living in geographical or social isolation;
- People that are economically inactive or unemployed;
- Non-motorised users;
- People with poor access to services, facilities and amenities; and
- Gypsies and Travellers.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 8 of 86

Determinants of Health

4.1.5. The following determinants of health have been identified as being influenced by the SIP proposals:

- Exercise and physical activity;
- Housing (tenure and condition);
- Air quality and odour;
- Noise;
- Flood risk;
- Crime and antisocial behaviour (community safety);
- Economy and employment;
- Access to services (Medical services; other caring services; public amenities; education and training);
- Traffic and transport;
- Community severance, social inclusion/exclusion; and
- Landscape/townscape and tranquillity.

4.2 Methodology

4.2.1. A baseline population profile of residents of the study area, and evidence base for each determinant of health, were developed from existing, publicly available data. Sources of data included the Census 2021, Local Authority Health Profiles, other statistics from the Office for Health Improvement and Disparities (OHID), and local authority specific public health data (including Joint Strategic Needs Assessments).

4.2.2. The evidence base was developed using a range of data sources, including Census 2021, Local Authority Health Profiles, and Council statistics.

Appraisal of Impacts

4.2.3. The SIP proposals have been grouped by type and assessed in terms of their impact on the above listed determinants of health. The groupings are as follows:

- Public Transport (Services);
- Public Transport (Infrastructure);
- Active Travel;
- Mass Transit;
- Road;
- Freight; and
- Mixed.

Recommendations

4.2.4. A set of mitigation and enhancement measures were identified to reduce the potential negative, and enhance the potential positive, health and wellbeing impacts of the SIP proposals.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 9 of 86

5 Policy context

5.1 National Policy and Guidance

National Planning Policy Framework, 2023

5.1.1. The National Planning Policy Framework (NPPF) is key in ensuring the planning system for dimension of sustainable development created a role for the planning system to promote healthy communities. According to the framework, the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities[4].

Planning Practice Guidance, 2019

The Planning Practice Guidance[5] (PPG) sets out how positive planning can contribute to healthier communities, through the creation of environments that support and encourage healthy lifestyles, and by identifying and securing the facilities needed for primary, secondary and tertiary care, and the wider health and care system.

Health Impact Assessment In Spatial Planning, 2020

5.1.2. This guide aims to increase the coverage of HIAs in the planning process. It forms part of UK Health Security Agency's (formally Public Health England) strategic commitment to local systems to support preventative action on the wider determinants of health and helps clarify the process of establishing HIA policies and requirements to users of the planning system.

5.2 Local Policy

Bath and North East Somerset Joint Health and Wellbeing Strategy: Our Vision for 2030

5.2.1. The Bath and North East Somerset Joint Health and Wellbeing Strategy[6] sets out the plans put in place to facilitate the best conditions for people of all ages to live healthy and fulfilling lives. The overarching vision of the seven year strategy is to improve health and wellbeing and reduce inequalities across the local population. Four priorities frame the approach to achieving this vision:

- Ensure that children and young people are healthy and ready for learning and education;
- Improve skills, good work and employment;

---

[4] Gov.uk (2023) National Planning Policy Framework. [Online] Available at: https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF_December_2023.pdf
[5] Gov.Uk (2019) Planning Practise Guidance. Available at: https://www.gov.uk/guidance/health-and-wellbeing
[6] Bath and North East Somerset Joint Health and Wellbeing Strategy: Our Vision for 2030. Available at: https://democracy.bathnes.gov.uk/documents/s76253/BNES%20Health%20and%20Wellbeing%20Strategy%202023-2030_Final%20Draft.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 10 of 86

- Strengthen compassionate and healthy communities; and
- Create health promoting places.

Health and wellbeing strategy 2020-2023 Bournemouth, Christchurch and Poole Council

5.2.2. The BCP Health and Wellbeing Strategy 2020-2023[7] builds on the visions set in the corporate strategy, to create vibrant communities with excellent quality of life, where everyone plays an active role. The health and wellbeing strategy focuses on three priorities:

- Engaging with and empowering communities of highest need to improve healthy life expectancy;
- Set priorities to accelerate work promoting healthy lives and wellbeing; and
- Provide governance and support to partners, prioritising the delivery of key partnership outcomes.

Bristol Joint Local Health and Wellbeing Strategy 2020-2025

5.2.3. The vision for the Bristol Joint Local Health and Wellbeing Strategy 2020-2025[8] is for citizens to thrive in a city that supports their mental and physical health and wellbeing, with children growing up free of adverse childhood experiences, and the gaps in health outcomes between the most economically deprived areas and the most affluent areas of Bristol to be significantly reduced. Five priorities are set to realise this vision, including healthy childhoods, healthy bodies, healthy minds, healthy places and communities, and healthy systems.

Bristol Development Framework Core Strategy

5.2.4. As part of the local plan, the Bristol Development Framework Core Strategy sets objectives for better health and wellbeing, including the provisioning for "a safe and healthy city made up of thriving neighbourhoods with a high quality of life." In particular, Policy BCS21, relating to new developments in Bristol, seeks to "Deliver a safe, healthy, attractive, usable, durable and well-managed built environment comprising high quality inclusive buildings and spaces that integrate green infrastructure."

---

[7] Health and wellbeing strategy 2020-2023 Bournemouth, Christchurch and Poole Council. Available at: https://www.bcpcouncil.gov.uk/Assets/About-the-council/Health-and-Wellbeing-Strategy.pdf
[8] Bristol Joint Local Health and Wellbeing Strategy 2020-2025. Available at: https://www.bristol.gov.uk/files/documents/1411-hw-strategy-document-2020-web/file

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 11 of 86

Dorset Council Health and Wellbeing Strategy 2020 to 2023

5.2.5. The Dorset Council Health and Wellbeing Strategy for the period 2020 to 2023[9] sets priorities and direction for the Health and Wellbeing Board and partners across the Dorset Integrated Care System. The strategy identifies three priority themes:

- Empowering communities;
- Promoting healthy lives; and
- Support and challenge.

Gloucestershire Joint Health and Wellbeing Strategy 2020-2030

5.2.6. The Gloucestershire Joint Health and Wellbeing Strategy 2020-2030[10] has been developed through the Health and Wellbeing Board engaging with wider stakeholders, including our communities with the aim to make Gloucestershire a place where everyone can live well, be healthy and thrive. The seven health and wellbeing priorities framing the strategies approach are:

- Physical activity;
- Adverse childhood experiences and resilience;
- Mental wellbeing;
- Social isolation and loneliness;
- Healthy lifestyles;
- Best start in life; and
- Housing.

North Somerset Joint Health & Wellbeing Strategy 2021-2024

5.2.7. The Health and Wellbeing Strategy for North Somerset[11] sets a focus for supporting the improvement of health and wellbeing as well as the reduction of health inequalities across the population. The vision will be achieved through preventing health problems before they arise, intervening early in relation to existing health and wellbeing problems, and supporting communities to be connected, healthy and resilient.

---

[9] Dorset Council Health and Wellbeing Strategy 2020 to 2023. (Note this Strategy is currently under review with an expected date of 2025). Available at: https://www.dorsetcouncil.gov.uk/documents/35024/3340525/Health+and+Wellbeing+strategy+2020+to+2023.pdf/474370b5-0204-d3dc-2a5e-525091de678a

[10] Gloucestershire Joint Health and Wellbeing Strategy 2020-2030. Available at: https://www.gloucestershire.gov.uk/media/xgmbp0ka/gcc_2596-joint-health-and-wellbeing-strategy_dev12.pdf

[11] North Somerset Joint Health & Wellbeing Strategy 2021-2024. Available at: https://n-somerset.gov.uk/sites/default/files/2022-02/Health%20and%20Wellbeing%20Strategy%202021-24.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 12 of 86

South Gloucestershire Council Joint Health and Wellbeing Strategy 2021-25

5.2.8.   South Gloucestershire Council Joint Health and Wellbeing Strategy 2021-25[12] emphasises a focus on reducing inequalities and a local South Gloucestershire 'place-based' approach. It aims for all people in South Gloucestershire to have the best start in life, live healthy and happy lives, and age well in supportive, sustainable communities. The strategy will achieve this through the following four objectives

- Improving educational attainment of children and young people, and promote their wellbeing and aspirations;
- Promoting and enable positive mental health and wellbeing for all;
- Promoting and enable good nutrition, physical activity and a healthy weight for all; and
- Maximising the potential of our built and natural environment to enable healthy lifestyles and prevent disease.

Wiltshire's Joint Local Health and Wellbeing Strategy 2023 to 2032

5.2.9.   Wiltshire's Joint Local Health and Wellbeing Strategy[13] is a shared strategy, which aims to improve the health and wellbeing of the local population. Its four guiding themes are:

- Improving social mobility and tackling inequalities;
- Prevention and early intervention;
- Localisation and connecting with communities; and
- Integration and working together.

---

[12] South Gloucestershire Council Joint Health and Wellbeing Strategy 2021-25. Available at: https://beta.southglos.gov.uk/publications/joint-health-and-wellbeing-strategy/joint-health-and-wellbeing-strategy-2021-25/
[13] Wiltshire's Joint Local Health and Wellbeing Strategy 2023 to 2032. Available at: https://www.wiltshire.gov.uk/article/8528/Wiltshire-s-Joint-Local-Health-and-Wellbeing-Strategy-2023-to-2032

6 Community Profile and Baseline

6.1.1. A baseline profile of the population living in the STB region, including those vulnerable groups identified in **Section 4**, has been prepared using publicly available information. Population profiles and baseline information for each determinant of health are grouped as follows;

- BCP and Dorset;
- Gloucestershire;
- WECA and North Somerset; and
- Wiltshire.

6.1.2. Community profile data has been used to express the status of vulnerable groups with respect to their vulnerable health status and / or deprivation. In some cases, health indicators are implicit rather than explicit, where direct health indicators were not available.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 14 of 86

6.2 Bournemouth, Christchurch and Poole (BCP) and Dorset

6.2.1. BCP and Dorset have a total population of approximately 400,300 people and 379,600 people respectively[14]. The population of BCP has increased by 5.7% between 2011 and 2021[15], compared to a 4.0% increase in Dorset over the same period[16]. Both areas witnessed a smaller increase to their population compared to the South West region (7.8%), and England (6.6%).

6.2.2. The largest proportion of people in BCP are aged between 20-24 years, making up 6.7% of the total population[16]. Conversely, the 70-74 years age group has the largest proportion of people in Dorset, comprising 8.0% of the total population. The proportion of those in BCP and Dorset aged 65 years and over exceeds the national average of 18.4% at 21.6% and 29.6% respectively. Spatially, residents aged 65 and over tend to live away from major population centres in BCP and are more concentrated around the rural parts of Dorset[14].

6.2.3. BCP has a high population density of 2,470 people per square kilometre (km^2). Dorset has a much lower density with 152 people per km^2. The population density in BCP is significantly higher than the regional and national population density averages of 239 people per km^2, and 434 people per km^2 respectively. Dorset has a lower population density than both averages. Approximately 68% of the population of Dorset live within rural areas, contrasting with only 6% in BCP.

---

[14] Office for National Statistics Population and household estimates, England and Wales: Census 2021. Available online at: Population and household estimates, England and Wales: Census 2021 - Office for National Statistics (ons.gov.uk)
[15] Bournemouth, Christchurch and Poole population change, Census 2021 – ONS
[16] Dorset population change, Census 2021 – ONS

Table 6-1 – Bournemouth, Christchurch and Poole (BCP) and Dorset Community Profile

Determinant of Health	Baseline Data
Exercise and Physical Activity	The percentage of physically active adults is consistent across BCP and Dorset. Levels above the national average of 66.3% are recorded, at 70.7% for BCP and Dorset combined. The percentage of adults who are classified as overweight or obese in both BCP and Dorset is similar to but lower than the national average (62%) at 61.0%. In BCP in 2022, 18.1% of 4–5 year-olds were reported to be overweight or obese. This proportion increases to 32.3% for 10–11 year-olds for the same year[11]. In Dorset, 20.3% of 4-5 year olds were reported to be overweight or obese, rising to 31.0% of 10-11 year olds. The proportion of children aged 4–5-year-old and 10-11 year old who are overweight or obese in both BCP and Dorset is lower than the national averages of 21.3% and 36.6% respectively. The Department of Health and Social Care describe the health of people across BCP and Dorset as varied compared with the England average. This is reflected in the IMD 2019[17], where BCP is ranked 140th out of 317 Local Authority Districts (LADs) nationally (where a rank of 1 is the most deprived and 317 is the least deprived). Dorset was ranked 191st and is therefore less deprived than BCP in the health domain.
Housing	In the BCP Council area there were 173,842 total households as of 2021. Of this, 36.9% were flats / maisonettes, 35.6% were detached, 17.3% were semi-detached, 9.9% were terraced, and 0.9% were mobile homes / caravans. Here, ownership represents 63.5% of the stock, with 25.4% publicly rented and 11% privately rented[18].

---

[17] Dorset Local Authority Health Profile 2019. Available online at: E06000059 (fingertips.phe.org.uk)
[18] https://gi.dorsetcouncil.gov.uk/insights/AreaProfiles/UnitaryAuthority/dorset-council

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 16 of 86

Determinant of Health	Baseline Data
	Of 169,261 total households in Dorset, a larger proportion are detached at 40.6%. Following this, 23.4% are semi-detached, 19.3% are terraced, 15.4% are maisonettes and 1.2% are mobile homes / caravans. Ownership represents a higher 71.4% of the total stock, compared to 12.3% a publicly rented and 16.3% privately rented. As of September 2024, the average house price in BCP was £330,000, a 0.8% increase on the 2023 figure of £328,000. House prices in Dorset are slightly higher at £350,000 though this figure represents a 0.6% decrease on the previous year from £352,000[19]. Both local authority average house prices are higher than the average for the South West and across Great Britain, which in September 2024 was £319,000 and £294,000 respectively.
Air Quality and Odour	In 2020, the transport sector significantly contributed to air pollution in the UK, accounting for a third of nitrogen oxides, 14% of PM2.5, and 12% of PM10 emissions[20]. BCP and Dorset have lower levels of air pollution compared to the UK overall[21]. In Dorset, the average annual mean for nitrogen dioxide is below 10 µg/m³. In BCP, it's 11-20 µg/m³, both below the UK AQO of 40 µg/m³[22]. The region also meets AQO standards for PM10 and PM2.5.

---

[19] https://www.ons.gov.uk/visualisations/housingpriceslocal/E06000059/
[20] Department for Transport (2022) Transport and environment statistics. Available online at: https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022#co2-emissions-from-transport-by-local-authority
[21] Defra. UK Air Information Resource. UK Ambient Air Quality Interactive Map. Available online at: UK Ambient Air Quality Interactive Map (defra.gov.uk)
[22] Defra. UK Air Information Resource. UK Ambient Air Quality Interactive Map. Available online at: UK Ambient Air Quality Interactive Map (defra.gov.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 17 of 86

Determinant of Health	Baseline Data
	Where air quality objectives are not likely to be achieved, an Air Quality Management Area (AQMA) must be declared. These are predominantly associated with vehicle traffic and emissions, principally NOx, although a few have been declared for SO_2. As such, AQMAs are mostly located within urban areas and sections of the road network which are heavily trafficked and frequently congested. There are four AQMAs across BCP and Dorset. Two are located in BCP: Commercial Road and Ashley Road in Poole; and two are located in Dorset: Chideock (along the A35) and High East Street in Dorchester.
Noise	The centres of Poole, Bournemouth, and Christchurch all experience elevated noise levels due to the presence of busy roads and railway tracks. In Poole, the loudest area centres around Poole Train Station, where the average noise level is 75dB and over. In Bournemouth, the A338 which runs parallel to the shorefront is the noisiest source at 75dB in the immediate vicinity of the road, lowering to 55-59.9dB closer to the town centre. In Christchurch, the railway is not the most significant noise emitting source as is the case in Poole, but the traffic accumulating at the Purewell Cross Roundabout along the Christchurch Bypass. Here, noise also reaches up to 75Db. Noise in Dorset is lower in comparison BCP, possibly owing to its more rural setting and reduced number of busy town centres. Here the A35 is a significant noise source, with average noise levels of 75dB in the immediate vicinity of the road, which runs from Dorchester to Bere Regis and passes through Puddletown, Burleston and Tolpuddle[23].

---

[23] http://extrium.co.uk/noiseviewer.html

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 18 of 86

Determinant of Health	Baseline Data
Potential for Flood Risk	Sea level rise, coastal erosion, increased storminess, and temperature changes are altering coastlines. In Bournemouth coastal areas, particularly around Hengistbury Head and Southbourne, are vulnerable to erosion and flooding. The low-lying areas near the River Stour are also at risk. Christchurch is particularly susceptible to flooding from the River Avon and River Stour, as well as coastal flooding in areas like Mudeford and Stanpit. The Poole Harbour area, including Sandbanks, is at significant risk of coastal erosion and flooding. The town centre and areas around the River Frome are also vulnerable. In Dorset, several coastal towns, including Weymouth, Portland, Bridport, and Lyme Regis, face risks from rising sea levels and coastal erosion. Inland areas near rivers, such as Wareham, are also prone to flooding[24].
Crime and Antisocial Behaviour	During September 2024, 188 crimes were reported in Dorset. Of this, the most commonly reported crimes were violence and sexual offences (77), anti-social behaviour (35), vehicle crime (18), and other theft (15). In BCP, the crime per month total was higher at 674 with anti-social behaviour representing the largest proportion at 184 instances, followed by violence and sexual offences at 168[25].
	In BCP and Dorset, there were 25.6 violent offences per 1,000 recorded in 2022/23. This was lower than the national average of 34.4. In a measurement of hospital admissions for violence (including sexual violence) the figure for the period 2020/21-2022/23 was 40.6, nearly double the regional average of 25.7[26].

---

[24] The areas of Dorset that could be underwater by 2050, Bournemouth Echo
[25] https://www.police.uk/pu/your-area/
[26] https://fingertips.phe.org.uk/search/crime#page/1/gid/1/pat/6/ati/501/are/E06000058/iid/11201/age/1/sex/4/cat/-1/ctp/-1/yrr/3/cid/4/tbm/1

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 19 of 86

Determinant of Health	Baseline Data
Economy and Employment	In 2021, 63.1% of the population of BCP were of working age (between 16-64 years) which is a slightly larger proportion than both the regional and national averages of 62.5% and 62.9% respectively. In contrast, Dorset has a smaller working age population than the regional and national averages at 56.3%. BCP has a relatively large number of jobs compared to its size. Job density (the ratio of total jobs to population aged 16-64 years) within BCP is recorded as 0.89 which is higher than the regional average of 0.87 and the national average of 0.85[27]. Dorset has an equivalent job density to the regional average at 0.87. The job density in BCP makes it an attractive prospect for the residents of Dorset, with in-commuting occurring daily and frequently for work. The majority of BCP residents both live and work within BCP, whereas the residents of Dorset are far more likely to commute, by car, into BCP for work. BCP has a strong asset base, with a growing 5G and digital capacity, an international airport and significant UK passenger and freight port capabilities[28]. BCP has an important role with the Dorset Local Enterprise Partnership (LEP), and benefits from transport connections into the South West. By the end of 2024, Dorset council in partnership with BCP council and the Dorset LEP aim to have established a dialogue with government for a county deal for the whole of Dorset to enhance and drive economic development and the skills agenda, attracting additional government funding into Dorset[29].

[27] Nomis Local Labour Statistics. Available online at: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)
[28] BCP Council, BCP Futures – Economic Development Strategy (EDS) for Bournemouth, Christchurch and Poole. 2021-2026. Available online at: Appendix 1 24112021 Cabinet.pdf (bcpcouncil.gov.uk)
[29] Dorset Council, Driving economic prosperity delivery plan. Available online at: Driving economic prosperity delivery plan - Dorset Council

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 20 of 86

Determinant of Health	Baseline Data
	In BCP, the employment landscape shows a higher concentration of professional and associate professional occupations compared to the South West region and Great Britain as a whole. Specifically, 56% of the workforce in BCP is employed in Standard Occupational Classification (SOC) 2020 major groups 1-3, which includes managers, directors, senior officials, professional occupations, and associate professional occupations. This is larger than the South West's 50.8% and Great Britain's 52.8%[30]. Conversely, BCP has a lower proportion of workers in administrative, secretarial, and skilled trades occupations (SOC 2020 major groups 4-5) at 15.2%, compared to 19.3% in the South West and 18.3% in Great Britain. Additionally, BCP has a higher percentage of workers in caring, leisure, and other service occupations, as well as sales and customer service roles (SOC 2020 major groups 6-7), at 17.4%, compared to 14.2% in the South West and 14.4% in Great Britain. Lastly, BCP has fewer workers in process plant, machine operatives, and elementary occupations (SOC 2020 major groups 8-9) at 11.4%, compared to 15.7% in the South West and 14.5% in Great Britain. In Dorset, 43.8% of the workforce is employed in higher-level occupations (SOC 2020 major groups 1-3), which is lower than the South West (50.8%) and Great Britain (52.8%)[31]. Administrative, secretarial, and skilled trades occupations (SOC 2020 major groups 4-5) make up 24.4% of Dorset's workforce, higher than the South West (19.3%) and Great Britain (18.3%). Caring, leisure, and

---

[30] Office for National Statistics, 2021, Labour Market Profile – Bournemouth, Christchurch and Poole, Available at:
https://wsponlinegbr.sharepoint.com/:w:/r/sites/2024UK302778/_layouts/15/Doc.aspx?sourcedoc=%7BCC110201-57AE-44E2-B099-7DDA9953846F%7D&file=Western%20Gateway%20SIP%20SEA_Scoping%20Report_Appendix%20B_Baseline%20Information.docx&wdOrigin=TEAMS-MAGLEV.p2p_ns.rwc&action=default&mobileredirect=true
[31] Office for National Statistics, 2021, Labour Market Profile- Dorset, Available at: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 21 of 86

Determinant of Health	Baseline Data
	service roles, along with sales and customer service occupations (SOC 2020 major groups 6-7), account for 17.7% of employment in Dorset, compared to 14.2% in the South West and 14.4% in Great Britain. Lastly, 14.1% of Dorset's workforce is in process plant, machine operatives, and elementary occupations (SOC 2020 major groups 8-9), slightly lower than the South West (15.7%) and Great Britain (14.5%). The visitor sector contributes £1.3bn to the BCP economy each year[32], and £1.05bn to the Dorset economy annually[33]. In 2021, this created 12,141 tourism jobs in BCP, and 25,936 tourism jobs in Dorset in 2019. In terms of gross value added (GVA), £417m in GVA was contributed to the local economy in BCP in 2021, and £703m generated in GVA in Dorset. This continues to develop as a major growth sector bringing both economic benefits and reputational advantages. Major tourist attractions across the region include: ■ Jurassic Coast World Heritage Site; ■ Lyme Regis Regatta and Carnival; ■ Portland Castle; ■ Durdle Door; ■ Bournemouth Air Festival; ■ Bournemouth Aviation Museum; ■ Christchurch Castle and Norman House; ■ Poole Seafood Festival; and

[32] Bournemouth, Christchurch and Poole: Working together to deliver a great destination, Tourism Strategy: 2023 – 2027. Available online at: FINAL BCP Report (bcpcouncil.gov.uk)

[33] Visit Dorset Business Support Hub, Tourism research for Dorset & SW England, How Tourism Benefits The Dorset Economy Infographic (2019) - minus Poole and Bournemouth statistics. Available online at: 2019 Infographic-The Economic Impact of Rural Dorset's Visitor Economy P (simpleviewinc.com)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 22 of 86

Determinant of Health	Baseline Data
	▪ Poole Harbour.
Access to Services	The BCP and Dorset Local Transport Plan 3[34] cites access to services in pockets of severe deprivation as a key local issue. Where deprivation clusters in urban areas, car ownership is lower and so residents here can be cut off from services. Equally where elderly residents experience a decline in general health and are no longer able to drive, they experience a similar severance. BCP Council area has 86 primary schools and 44 secondary schools, and Dorset Council area has 156 primary schools and 48 secondary schools[35]. Across both council areas, there are a total of 12 community hospitals[36].
Traffic and Transport	BCP and Dorset have good transport connections in urban areas, with strong links to national motorways, rail lines, and local public transport. Bournemouth also has an international airport, carrying approximately 700,000 passengers per year with flights servicing 22 international destinations. However, rural areas face accessibility constraints. Major transport routes include: ▪ Sections of the A31, A35, A37, A338, A341, A347, A350 and A354; ▪ Sections of the Waterloo to Weymouth and the London to Exeter main rail line corridors; ▪ Sections of National Cycle Route's 2, 24, 25, 26, 250 and 253; and

[34] https://www.dorsetcouncil.gov.uk/w/local-transport-plan-3
[35] https://admissionsday.co.uk/area/dorset#:~:text=Dorset%20schools%20and%20admissions%20data,schools%20and%2048%20secondary%20schools.
[36] https://www.dorsethealthcare.nhs.uk/patients-and-visitors/our-services-hospitals/community-hospitals

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 23 of 86

Determinant of Health	Baseline Data
	▪ Section of the South West Coast Path which terminates in Poole Harbour. Additional local long distance walking trails include: ▪ Wessex Ridgeway; ▪ Stour Valley Way; ▪ Cerne Valley Way; ▪ Frome Valley Trail; and ▪ Jubilee Trail. Poole Harbour is Europe's largest natural harbour. Once a major port, freight transport has declined but the harbour is still regularly served by cross channel passenger ferries with services to Guernsey, Jersey and France.
Community Severance, Social Inclusion / Exclusion	According to Age UK, the majority of the people aged 65 years and over in BCP are within very low and low risk areas for loneliness[37]. However, within BCP areas such as Kinson South, Strouden Park, Grange, and Poole Town have very high risk of loneliness. The majority of the people aged 65 years and over in Dorset are also within very low and low risk areas for loneliness with the exception of areas such as Lodbourne, Gillingham Town, Shaftesbury, Stour Valley, Portman, Blandford, Bridport, Wool, Wareham, Swanage, Stour, Wimborne Minster, The Cross and Potterne, and Ferndown experiencing a very high risk of loneliness. In general, urban areas, such as the densely

[37] Age UK (2016). Risk of Loneliness. Available online at: https://www.ageuk.org.uk/our-impact/policy-research/loneliness-research-and-resources/loneliness-maps/

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 24 of 86

Determinant of Health	Baseline Data
	populated neighbourhoods of BCP and the large towns of Dorset, have higher levels of actual and potential loneliness.
Landscape / Townscape and Tranquillity	The South East Dorset Green Belt, established in 1980, spans over 30,000 ha to prevent urban sprawl by keeping land open. It covers 80% of the Dorset Council area and 20% of the BCP Council area, limiting development to already developed regions. Bournemouth, Christchurch and Poole's National Character Areas (NCAs) include the New Forest and Dorset Heaths. The New Forest NCA is distinguished by the New Forest National Park, which takes up 75% of the NCA, while the Dorset Heaths NCA which contains a large part of the Dorset Area of Outstanding Natural Beauty[38].

Dorset's landscape is divided into several Local Character Areas (LCAs), each with its unique features. The LCAs, for instance, is characterized by open chalk downland, lowland heathland, chalk valley and downland, wooded hills, and clay valley.

A National Landscape, formerly known as an Area of Outstanding Natural Beauty (AONB), is a protected area valued for its unique character and beauty. In BCP and Dorset, there are two such landscapes: Dorset National Landscape and part of Cranborne Chase and West Wiltshire Downs National Landscape.

Covering an area of over 984 km^2, Cranborne Chase National Landscape overlaps the boundaries of Wiltshire, Dorset, Hampshire and Somerset. It is a diverse natural landscape with a rich archaeological and historical significance. Cranborne Chase offers areas of rare chalk grasslands, scientifically important ancient woodlands, and chalk escarpments. The downland hillsides and chalk |

---

[38] Natural England, 2024, National Character Area Profiles Interactive Map, Available at: Natural England - National Character Area Profiles - National Character Area Profiles (nationalcharacterareas.co.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 25 of 86

Determinant of Health	Baseline Data
	river valleys have a distinct and recognisable character. In 2019, Cranborne Chase became the UK's first National Landscape fully designated as an International Dark-Sky Reserve.
	The Jurassic Coast, a UNESCO World Heritage Site, spans 153 km from Old Harry Rocks in Dorset to Exmouth in East Devon. Renowned for its geology revealing 185 million years of Earth's history, it significantly enhances the area's seascape character.
	Key settlements in the region, including Bournemouth, Christchurch, Poole, and Dorchester, developed due to their strategic locations near geographical features like river crossings and valleys. Dorset's high chalk hills have also hosted defensive settlements for millennia.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 26 of 86

6.3 Gloucestershire Council

6.3.1. Between the last two censuses (held in 2011 and 2021), the population of Gloucestershire increased by 7.4%, from around 597,00 in 2011 to around 645,000 in 2021. The population here increased at a similar rate to the overall population of the South West (7.8%), but by a greater percentage than the overall population of England (up 6.6% since the 2011 Census)[39,40].

6.3.2. In mid-2023, Gloucestershire had a reported population of 659,276, an 1.01% increase from mid-2022[41]. Amongst its districts, Gloucester City Council has the largest population at 134,991. Despite having the smallest population at 89,104, the Forest of Dean saw the largest growth amongst the Gloucestershire districts from mid-2022 to mid-2023.

6.3.3. Gloucestershire has a relatively low population density of 243 people per square kilometre (km^2)[42], compared to the national average of 434 people per km^2.

6.3.4. The dominant age group in Gloucestershire is 55-59 years, followed by 60-64 years, meaning the county has an ageing population. The county also has a slightly smaller gender distribution of males (48.90%) compared to the national and regional averages, 49.03% and 48.96%, respectively.

6.3.5. The urban districts of Cheltenham and Gloucester, have a younger population as the proportion of the population in the over 65 years age groups is smaller, whilst the proportion of the population in the 20-24 years to 35-39 years age groups is noticeably larger[40]. This is the opposite for more rural districts such as the Forest of Dean and Stroud.

---

[39] Gloucestershire County Council, 2013, Census Briefing for Commissioners, Available at: census_briefing_for_commissioners_-_full_report.pdf (gloucestershire.gov.uk)
[40] InformGloucestershire, 2021, First Release Initial Briefing, Available at: first-release-inital-briefing.pdf (gloucestershire.gov.uk)
[41] Gloucestershire County Council, 2023, Current population of Gloucestershire (Mid-2023 population estimates) An overview, Available at: mid-2023-report.pdf (gloucestershire.gov.uk)
[42] Gloucestershire County Council, 2022, Gloucestershire Road Safety Policy, Available at: https://glostext.gloucestershire.gov.uk/documents/s86743/Road%20Safety%20Policy%20Cabinet%20Report%20final%202.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 27 of 86

6.3.6. The age group that saw largest increase in all of Gloucestershire was in the over 65 years age group, which increased by 1.70% from mid-2022 to mid 2023, followed by the 0-15 year olds, which grew by 0.97%, a rate greater than the national increase by 0.72%.

6.3.7. Dependency ratios measure the level of support provided by a working age population (16-64 years) to the younger and older populations beyond this range. For every 100 people of working age in Gloucestershire, there were six people who were dependent on them, concordant with its ageing population, giving a ratio of 0.66. This is higher than the England and Wales ratio of 0.59[41].

6.3.8. There has been a 1.22% increase in population density in Gloucestershire between mid-2022 and mid-2023. The county has a higher population density than the South West but is ranked in the 20% least densely populated county and unitary authorities in England and Wales for 2023. Conversely, Gloucester City Council is the only district to be ranked within the top 20% most densely populated district and unitary authorities[40].

Table 6-2 – Gloucestershire Council Community Profile

Determinant of Health	Baseline Data
Exercise and Physical Activity	The percentage of physically active adults in Gloucestershire (71.7%) has consistently been greater than the national percentage (67.1%), however 30% of residents aged over 55 years old are inactive[43].

---

[43] Active Gloucestershire, 2019, 'Working to increase physical activity in Gloucestershire', Available at: https://www.activegloucestershire.org/wp-content/uploads/2024/02/our-impact-2019.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 28 of 86

Determinant of Health	Baseline Data
Housing	As of 2021, there were 279,429 households in Gloucestershire, making up 11.4% of total households in the Sout West region. Of the total stock, 31% were detached, 34% were semi-detached, 19% were terraced, 15% were flats / maisonettes, and 1% were mobile homes / caravans. In 2021, 67.8% of homes were owned, 17.6% were privately rented and 13.1% were publicly rented[44]. Across the whole of Gloucester, the average house price in September 2024 was £260,000, up 1.1% from £257,000 in 2023[19]. This price is lower than the average for the South West and across Great Britain, which in September 2024 was £319,000 and £294,000 respectively
Air Quality and Odour	The Gloucestershire area contains six AQMAs; Cheltenham, Birdlip, Lydney, Barton Street, Priory Road, and Painswick. The county exhibits a decreasing trend in monitored NO_2 concentrations. $PM_{2.5}$ concentrations, based on dispersion modelling, demonstrate compliance with the annual mean objective in 2019. The public health outcomes indicator, which was updated to the 2021 figure from 2018 previously, states that in 2021, the fraction of mortality attributable to $PM_{2.5}$ pollution in Cheltenham was 5.5%, which is the same as the national average, but higher than that for the south-western region (5.1%).
Noise	Within Gloucestershire, the more urban areas of Gloucester and Cheltenham experience elevated noise levels due to the presence of busy roads and railway tracks. The M5 runs through the middle of Gloucester and Cheltenham, with average noise levels of 75dB in the immediate vicinity of the

---

[44] https://www.gloucestershire.gov.uk/media/h55pn3ft/housing-briefing.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 29 of 86

Determinant of Health	Baseline Data
	road, dissipating to 55-59.9dB up to 2.3km. Smaller roads in both areas have average noise levels of 70.0-74.9, and tend to be situated in residential areas. From Gloucester Train Station through to Cheltenham Spa Train Station, and up to Ashchurch for Tewesbury Train Station in Northway in the northernmost part of Gloucestershire, rail traffic noise levels remain a constant 75dB in the immediate vicinity of the railway[23].
Potential for Flood Risk	In Gloucestershire, several areas are prone to flooding, although coastal erosion is not a significant concern due to its inland location. Some key areas at risk of flooding are: ■ Tewkesbury, which is particularly vulnerable due to its location at the confluence of the River Severn and River Avon ■ Gloucester, where areas around the River Severn are at risk of flooding, especially during periods of heavy rainfall ■ Cheltenham, where river flooding is not a risk, but surface water flooding during intense rainstorms occurs. ■ Stroud, where the Stroud Valleys are susceptible to flooding from the River Frome and its tributaries[45].
Crime and Antisocial Behaviour	During September 2024, 436 crimes were reported in Gloucester City Centre. Of this, the most commonly reported crimes were violence and sexual offences (136), anti-social behaviour (80), shoplifting (64), and public order (38)[25].

[45] Gloucestershire county council flood risk maps

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 30 of 86

Determinant of Health	Baseline Data
	In Gloucester, there were 58.9 violent offences per 1,000 recorded in 2022/23. This was significantly higher than the national average of 34.4. In a measurement of hospital admissions for violence (including sexual violence) the figure for the period 2020/21-2022/23 was 23.6, in greater alignment with the regional average of 25.7[26].
Economy and Employment	The unemployment rate in Gloucestershire stands at 3.1%, which is lower than the national average of 3.9%, indicating a relatively healthy job market with fewer people out of work[27].
	Approximately 14.9% of Gloucestershire's population aged 16 to 64 years are economically inactive, meaning they are not in employment or actively seeking work. This group includes students, retirees, and those with long-term illnesses.
	The median average salary for full-time employees in Gloucestershire is £33,449 as of 2023, providing a benchmark for earnings in the region and reflecting the overall economic health.
	Average salaries in Gloucestershire grew by £1,130 between 2022 and 2023, representing a growth rate of 3.50% per year. This increase in earnings reflects positive economic conditions and rising living standards.
	Gloucestershire's Gross Domestic Product (GDP) was estimated at £22 billion in 2021, with a GDP per capita of £33,305, indicating the region's productivity and economic performance.
	The job density in Gloucestershire is 0.87, meaning there are 0.87 jobs available per working-age person. This ratio helps to understand the availability of employment opportunities relative to the population.
	Many residents of Gloucestershire commute to nearby cities such as Bristol and Birmingham for work, contributing to the local economy through spending on transportation and other services. In Gloucestershire, 49.4% of the working population drive to work, which is higher than both the South West (49.0%) and the national average (45.1%). Walking is the next most common mode of transport (8.1%), followed by being a passenger in a car or van (3.7%). These figures are similar to

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 31 of 86

Determinant of Health	Baseline Data
	those in the South West and England and Wales. Fewer people in Gloucestershire travel by train (0.3% versus 1.9% nationally) or by bus, mini coach, or coach (2.2% versus 4.2% nationally)[46].
	Certain areas, particularly in urban Gloucester, face higher levels of deprivation compared to more affluent rural areas. Issues such as lower income, higher unemployment, and limited access to services are more prevalent in these deprived areas.
	The claimant count for unemployment-related benefits was 3.6% in March 2024, providing insight into the number of people relying on government support due to unemployment.
	Over 43% of the working-age population in Gloucestershire have a degree or higher qualification, supporting a skilled workforce and attracting businesses to the region.
	About 14.2% of the employed population in Gloucestershire are self-employed, indicating a strong entrepreneurial spirit and the presence of many small businesses.
	Gloucestershire is home to 100 large businesses, 500 medium-sized businesses, and 2,790 small businesses, supporting a dynamic and resilient local economy.
	The largest industry in Gloucestershire is Human Health and Social Work Activities, which accounts for 13.7% of all jobs. This sector includes hospitals, clinics, and social care services, highlighting the importance of healthcare in the local economy.

[46] Inform Gloucestershire, 2021, Labour Market and Travel to Work- A Briefing, Available at: labour-market-and-travel-to-work-briefing.pdf (gloucestershire.gov.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 32 of 86

Determinant of Health	Baseline Data
	Other significant sectors in Gloucestershire include Manufacturing, Wholesale and Retail Trade, and Education, providing a diverse range of employment opportunities and contributing to the region's economic stability.
	The Real Estate Activities sector saw a 33% increase in roles between 2021 and 2022, highlighting the expanding property market and related services in the region.
	The Mining and Quarrying sector experienced a 42% decrease in roles between 2021 and 2022, reflecting broader trends in the industry and shifts in economic focus.
	In 2019, Gloucestershire's travel and tourism industry was worth £966 million annually. Despite the impact of COVID-19, the county is well-positioned to capitalise on the revitalised tourism sector. This will bring new jobs and businesses, enhance the quality of life for residents, and ensure the area is well-maintained for everyone to enjoy[47]. Key attractions contributing to this include: ■ Gloucester Cathedral; ■ Cotswold Wildlife Park and Gardens; ■ Puzzlewood; ■ Symonds Yat Rock; ■ Gloucester Docks; ■ Sudeley Castle and Gardens; ■ Castle Combe Village; ■ Bibury; ■ Bourton-on-the-Water; and

---

[47] Steve Gardner-Collins, 2021, Visit Gloucestershire, https://glostext.gloucestershire.gov.uk/documents/s71614/Visit%20Gloucestershire%20-%20County-Wide%20Visitor%20Economy%20Roadmap%20to%20Recovery.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 33 of 86

Determinant of Health	Baseline Data
	■ Broadway Tower.
Access to Services	The rural nature of much of Gloucestershire creates problems for people wanting to use centrally based services, and for agencies providing services to people in their own homes. 16% of homes do not own a private car or van, preventing them access to essential services which are clustered in the urban areas of Gloucester and Cheltenham. In combination with this, 16.1% of the Cotswold population live over a 45 minute bus journey from the nearest GP. Here rural bus services are also far more infrequent than those in urban centres, further complicating access to services[48]. Gloucestershire Council has 343 primary schools, 57 secondary schools and six sixth forms[49]. There are a total of six community hospitals operating across the Gloucestershire council area[50].
Traffic and Transport	Gloucestershire is served by major roads such as the M5 motorway, which runs north-south, and the A40, which runs east-west. These roads provide vital links to other parts of the UK. There are extensive bus and trains networks operated by various companies within Gloucestershire, and to major cities like London, Birmingham, and Bristol[51].

---

[48] https://www.gloucestershire.gov.uk/media/wajiep1g/overview-journey-time-accessibility-2022.pdf

[49] https://schoolrun.co.uk/gloucestershire

[50] https://www.ghc.nhs.uk/our-teams-and-services/community-hospitals/

[51] Robertsons Transport (2023) Navigating Gloucester: A comprehensive Guide to Transportation. Available at: https://www.robertsonstransport.co.uk/navigating-gloucester-a-comprehensive-guide-to-transportation/

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 34 of 86

Determinant of Health	Baseline Data
	The Gloucestershire Local Transport Plan (2020-2041) outlines the county's vision for a sustainable and efficient transport system. This includes improving public transport, reducing car dependency, and enhancing infrastructure for cycling and walking[52].
Community Severance, Social Inclusion / Exclusion	Loneliness and social isolation is widespread in Gloucestershire but varies in intensity and impact geographically and between different social groups. Here, living alone is a significant contributor to feelings of loneliness and social isolation, with over 20 Lower Super Output Areas (LSOAs) containing 19.8-33.1% of households with persons aged over 65years living alone. A survey of over 1,100 Gloucestershire residents revealed that older respondents (over 85 years) had significantly lower levels of satisfaction with social life and relationships with friends compared to other age groups. Older residents were also more reliant on family members forming part of their social circle, with 24% of 70-84 year olds indicating that half of their social circle consisted of family members, rising to 37% for those aged over 85 years[53].
Landscape / Townscape and Tranquillity	Gloucestershire's landscape features diverse natural elements, including the Cotswolds with its rolling hills, limestone grasslands, and honey-coloured stone villages. The Forest of Dean adds to the region's appeal with its dense woodlands, scenic trails, and rich biodiversity[54].

---

[52] Gloucestershire County Council (2021) Gloucestershire Local Transport Plan 2020-2041. Available at: https://glostext.gloucestershire.gov.uk/documents/s68295/LTP%20Cabinet%20Report%2020270121%20v1.6%20Final%20Report.pdf
[53] https://www.gloucestershire.gov.uk/media/hrannoby/loneliness_and_social_isolation_in_gloucestershire.pdf
[54] Gloucestershire County Council, 2017, Landscape and Townscape Appraisal: Llanthony Road Gloucester South West Bypass, Available at: appendix-b3-llanthony-landscape-townscape.pdf (gloucestershire.gov.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 35 of 86

Determinant of Health	Baseline Data
	The River Severn, the UK's longest river, flows through Gloucestershire, offering serene riverbanks and wetlands. The county's fertile farmland, with vast fields of crops and pastures, highlights its agricultural heritage[55]. Gloucestershire's townscape blends historical and contemporary elements. Gloucester features the medieval Gloucester Cathedral, while Cheltenham is known for its Regency architecture and cultural festivals[55]. Market towns like Cirencester and Tewkesbury feature historic buildings and active markets, encapsulating traditional English life. Modern residential and commercial developments are also present, particularly in urban centres, providing a contrast to the historic areas. Public spaces, including parks, gardens, and public squares, are integral to the townscape, offering areas for recreation and community events[55]. In Gloucestershire, there are two National Landscapes, the Cotswolds National Landscape, and the Wye Valley National Landscape. Gloucestershire's National Character Areas (NCAs) include parts of the Cotswolds, Severn and Avon Vales, and the Forest of Dean and Lower Wye. The Cotswolds NCA is distinguished by its limestone geology, rolling hills, historic market towns, dry stone walls, and ancient woodlands, forming a key part of the region's identity[56].

---

[55] Gloucestershire County Council, 2024, Biodiversity in Gloucestershire, Available at: Biodiversity in Gloucestershire | Gloucestershire County Council
[56] Natural England, 2024, National Character Area Profiles Interactive Map, Available at: Natural England - National Character Area Profiles - National Character Area Profiles (nationalcharacterareas.co.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 36 of 86

Determinant of Health	Baseline Data
	Gloucestershire's landscape is divided into several Local Character Areas (LCAs), each with its unique features. The Cotswolds LCA, for instance, is characterized by its rolling hills, limestone grasslands, and traditional stone-built villages. This area is renowned for its scenic beauty and historical significance, with numerous walking trails and conservation areas[57].

The Forest of Dean LCA is known for its dense woodlands, rich biodiversity, and historical mining sites. This area offers a mix of natural beauty and industrial heritage, with extensive forest trails and wildlife habitats[58].

The Severn Vale LCA is characterized by flat, fertile farmland and meandering rivers, contrasting with the county's rugged areas. It is vital for agriculture and contains important wetland habitats. |

6.4 West of England Combined Authority and North Somerset

6.4.1. Following the 2021 census, the West of England region (including North Somerset) has a total population of approximately 1,172,900 people[14], a 9.7% increase since the 2011 census from 1,069,583 people[14]. Of the region's total population, 40.3% reside in the City of Bristol, with 24.75% in South Gloucestershire, (the majority of which reside in the wider Bristol urban area), 18.47% in North Somerset and 16.48% in Bath and North East Somerset (B&NES).

---

[57] Cotswolds National Landscape, 2004, Landscape Character Assessment, Available at: Landscape Character Assessment - Cotswolds National Landscape (cotswolds-nl.org.uk)
[58] Forest of Dean District Council, 2000, Landscape character assessment, Available at: Landscape character assessment - Forest of Dean District Council

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 37 of 86

6.4.2. The highest proportion of people in the West of England are aged between 20-24 years, who make up over 8% of the total population, compared to 6% nationally and 5.8% regionally[59]. The percentage of those aged 65 years and over (17.4%) is lower than the national average of 18.4% and the regional average of 22%.

6.4.3. The region has a working age population (aged 16-65 years) of 734,400 (64.4%). Of the four local authorities (LAs), Bristol has the youngest age profile with 68% of the population of working age and a further 19% aged under 15. Conversely B&NES, South Gloucestershire and North Somerset have an older age profile; with 24% of North Somerset's population aged over 65 years.

6.4.4. In total, 50.7% of the region's population are female and 49.3% are males. This is slightly different to the national average of 51% for women and girls and 49% for men and boys[60].

6.4.5. The region is predominately urban with significant rural areas. 189,069 people live in areas classified as rural and rural related, which is 16.1% of the total population, albeit these figures are from the 2011 census.

6.4.6. Looking at the IMD in 2019, it can be concluded that the region generally experiences low levels of deprivation. There are, however, substantial pockets of deprivation in Bristol (in particular South Bristol) and North Somerset, and smaller pockets of deprivation in Bath. Bristol City local authority district is amongst the 30% most deprived in the country, ranking 82nd in 2019 out of 317 local authorities. This is in line with the national trend of urban populations experiencing higher levels of deprivation.

6.4.7. The region has pockets of long-standing deprivation, with 16% of Lower layer Super Output Areas (LSOAs) in Bristol falling into the most deprived 10% in England, 6% in North Somerset and 2% in B&NES. Bristol has 41 LSOAs in the most deprived

---

[59] UK Government, Rural Urban Classification (2011). Available online at: 2011 Rural Urban Classification lookup tables for all geographies - GOV.UK (www.gov.uk)
[60] Lower layer Super Output Areas (LSOAs) are made up of groups of Output Areas (OAs), usually four or five. They comprise between 400 and 1,200 households and have a usually resident population between 1,000 and 3,000 persons.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 38 of 86

10% in England for overall deprivation, including three LSOAs in the most deprived 1% in England, one LOSA is in the most deprived 100 neighbourhoods in England (Hareclive in Hartcliffe and Withywood).

6.4.8. B&NES is amongst the 30% least deprived neighbourhoods, ranking 247th out of 317 local authorities. North Somerset is amongst the 30% least deprived in the country, ranking 221st out of 317 Local Authorities.

Table 6-3 – West of England Combined Authority and North Somerset Community Profile

Determinant of Health	Baseline Data
Exercise and Physical Activity	The percentage of physically active adults in 2021/22 in the region is higher than both the national and regional average in Bristol, B&NES and North Somerset. South Gloucestershire is higher than the national average but slightly lower than the regional average for physically active adults. Furthermore, the percentage of adults (aged 18 and over) classified as overweight or obese in the region were lower in each of the four local authorities than both the national and regional average[61].
Housing	In 2011, 63.4% of the 363,800 total households in the West of England Combined Authority owned their homes, compared to 20.6% that were privately rented and 16% publicly rented. Tenure in North Somerset follows a similar trend, with a large 73.6% of homes owned, 17.2% privately rented and 9.2% publicly rented of a total 88,227 households[62]. House prices across the West of England Combined Authority are significantly higher than other local authorities in the Western Gateway STB region. Prices were highest in B&NES where as of September 2024 the average was £434,000. In Bristol, the average house price was £354,000 and

---

[61] Public Health England, Local Authority Health Profiles. Available online at: Local Authority Health Profiles - Data - OHID (phe.org.uk)
[62] https://www.westofengland-ca.gov.uk/wp-content/uploads/2021/10/LHNA_Final_Report_Sept_20211.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 39 of 86

Determinant of Health	Baseline Data
	in South Gloucestershire, £346,000. North Somerset followed closely behind at £334,000. All 2024 housing prices reflect an increase on the previous year at a range of 0.5% to 4.3%[19].
Air Quality and Odour	There are nine AQMAs across the WECA region. One is located in Bristol, five are situated in B&NES, and three within South Gloucestershire. All AQMAs have been declared for exceedances of NO_2 with Bristol AQMA also exceeding in PM10. The AQMAs are: ■ Staple Hill, Cribbs Causeway and Kingswood in South Gloucestershire ■ Bath, Keynsham, Saltford, Temple Cloud and Farrington Gurney in B&NES ■ Bristol AQMA in City of Bristol There are no declared AQMAs in North Somerset. Smoke control orders are present in all of Bristol, Bath, within the boundary of the M4, M5 and M32 and Kingswood in South Gloucestershire. Open fires and wood burning stoves have risen in popularity over recent years, with wood being used principally as a "lifestyle fuel" rather than for a primary source of heating. In both rural and urban locations, smoke from burning causes significant PM10 emissions, particularly in the evening in wintertime, and particularly if appliances are misused or inappropriate fuels are used[63].

---

[63] Environmental Protection Organisation, Solid Fuel and Air Quality: An Update for Local Authorities. Available online at: https://www.environmental-protection.org.uk/wp-content/uploads/2013/07/Solid-Fuel-and-Air-Quality-Update-for-LAs-final-060413.pdf
132 Air Quality Strategy for Wiltshire 2019-2024

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 40 of 86

Determinant of Health	Baseline Data
	Both Bristol City and B&NES councils have implemented clean air zones, to improve air quality by reducing harmful levels of air pollution caused by traffic and make sure everyone benefits from a healthy and natural environment.
Noise	Across the West of England Combined Authority area, the highest average noise levels are located in, and to the north of, Bristol. With multiple busy roads connecting in and out of Bristol (including links to South Wales) multiple areas of 75dB average noise level are present, particularly where the M4 and M5 converge at Almondsbury. Extensive areas of 55.0-59.9dB average noise levels are present where the M4 and M49 run parallel, and residential dwellings in between are exposed. In Bath and North East Somerset, road traffic noise levels are lower on the whole, with only small sections of 70.0-74.9dB average along the A36. The source of highest average noise levels in North Somerset is the M5, following the western coastline and passing by towns including Portbury, Bourton, and Christon[23].
	The rail traffic noise level is significantly lower than road traffic noise levels across the West of England Combined Authority. All local authorities here experience average noise levels of between 70.0-75.0dB in the immediate vicinity of railway stations and tracks[23].
Potential for Flood Risk	In the combined authority several areas are at risk of flooding: some key areas are: ■ Bristol is particularly vulnerable to flooding from the River Avon and tidal flooding from the Bristol Channel. Areas like the city centre, Avonmouth, and parts of South Bristol are at risk ■ Bath and Northeast Somerset, where the River Avon also poses a flood risk, especially in Bath city centre and the surrounding low-lying areas

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 41 of 86

Determinant of Health	Baseline Data
	▪ South Gloucestershire, where areas near the River Severn, such as Severn Beach and parts of Thornbury, are at risk of both river and tidal flooding[64].
Crime and Antisocial Behaviour	According to the police definition of anti-social behaviour, Bristol reported 9,265 incidents in 2023/24, a slight increase of 1.7% on the previous year but significantly lower than 2021/22 (-17.8%). There was a reduction in the Environmental (-22.0%) and Personal (-8%) categories of incident but an increase in Nuisance ASB incidents (+4.2%). 40.5% of residents feel anti-social behaviour is a problem locally, rising to 73.7% for residents living in the 10% most deprived areas[65]. As of 2024, the crime rate in Bristol is 80% higher than the South West and 32% higher than the England, Wales and Northern Ireland overall figure, whereas the other three local authorities in the region fall below the national average.
	Across the West of England Combined Authority, there were 30.7 violent offences per 1,000 recorded in 2022/23. This was slightly lower than the national average of 34.4. In a measurement of hospital admissions for violence (including sexual violence) the figure for the period 2020/21-2022/23 was 42.3, significantly higher than the national average of 34.3[26].
Economy and Employment	The West of England has a strong and diverse economy. It is the most productive city region in England outside London, with vibrant innovative businesses and a highly skilled workforce with economic links to Wales, the Midlands, London and the South West. Founded on a base of high growth industry and business sectors which are well-connected along the M5/M4 corridor to London,

---

[64] West of England Combined Authority Climate and Ecological Action Plan
[65] https://www.bristol.gov.uk/files/documents/1531-jsna-2021-crime-updated-june-2021/file

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 42 of 86

Determinant of Health	Baseline Data
	Wales and Birmingham as well as internationally through Bristol airport, the West of England economy competes strongly on a global scale[66].
	The West of England is one of the most prosperous regions in the UK, and it plays a central role in the national economy. With an economy worth over £33 billion per annum and one of the highest rates of employment in the country, the region accommodates a range of designated Enterprise Zones and Enterprise Areas at Filton, Temple Quarter, Junction 21, Bath, Avonmouth/ Severnside, Somer Valley and Emersons Green. At the forefront of innovation and focused on the area around Filton, the West of England hosts the largest aerospace cluster in the UK. The West of England Combined Authority boasts a thriving higher education sector and world-class universities push the level of skills and qualification in the West of England above the national average[67].
	In Bristol in particular the visitor economy is a key sector, growing in value by 37% between 2011 and 2019 to an estimated £1.174 billion. In 2019, the sector pulled in 1.9 million staying trips and 13.6 million day-trips with visitors spending an estimated £1.2 billion across the year[68].
	Despite the West of England being one of the most prosperous regions in the UK, there are substantial pockets of deprivation, including areas of long-standing deprivation, in Bristol (in particular south Bristol) and North Somerset, and smaller pockets of deprivation in Bath. Bristol City Council is amongst the 30% most deprived local authorities in the country.

[66] West of England Combined Authority (2020) West of England Recovery Plan. Available at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2020/10/West-of-England-Recovery-Plan.pdf
[67] West of England Combined Authority (2023) West of England Employment Land Spatial Needs Assessment. Available at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2023/08/WECA-ELSNA-Final-Report-March-23-v3.pdf
[68] https://www.originalbybristol.com/sectors/creative-and-visitor-economy/

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 43 of 86

Determinant of Health	Baseline Data
	The working age population in the West of England is well qualified overall, with 46% possessing an NVQ level or above qualification[69]. This compares to 39% in England as a whole and places the West of England Local Enterprise Partnership (LEP) amongst the top 5 out of 38 LEPs nationally in terms of its qualified working age population. The high level of qualifications amongst the working age population reflects the range and quality of higher education provision across the region, including four universities, four further education colleges and a sixth form college. Despite a substantially qualified working age population, about 4% of the sub-region's working age population have no qualifications – approximately 28,600 people[70].
	B&NES has the highest gross mean salary of WECA at £38,512 per annum, whilst the City of Bristol has the lowest at £34,598 per annum[71]. All gross mean salaries are higher than the regional average of £32,790 and in line with the national average of £35,955.
	In 2021/22, it was estimated that between 102,600 and 153,900 jobs paid less than the living wage across the region, with many of these jobs being part-time and a high proportion based in the City of Bristol[72]. Hourly pay for full-time employees remains higher for men than woman across all four Unitary Authorities, based on both residency and workplace medians. South Gloucestershire and

---

[69] ONS, Earnings and hours worked, place of residence by local authority: ASHE Table 8, 2023 [online] available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/placeofresidencebylocalauthorityashetable8
[70] West of England Employment and Skills Plan: Evidence Base. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2019/06/190320-Employment-and-Skills-Plan-Evidence-Base-June-2019-FINAL_compressed.pdf
[71] ONS, Earnings and hours worked, place of residence by local authority: ASHE Table 8, 2023 [online] available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/placeofresidencebylocalauthorityashetable8
[72] West of England Combined Authority (2021), Adult Education Strategy 2021/22. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2021/10/WECA-ADULT-EDUCATION-STRATEGY-2021-22.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 44 of 86

Determinant of Health	Baseline Data
	North Somerset have the highest living wage pay gap for full-time workers at 16.2%, whilst the pay gap for full-time workers in Bristol of 8.5% remains below the national pay gap of 8.6%[73].
	As of December 2020, 5.0% of working age population in the West of England were claiming unemployment benefits (36,840 residents). This is broadly in line with levels seen in October and November 2020.
	Between 2023 and 2024, the West of England saw a lower unemployment rate than England as a whole, at 2.7% within the West of England, compared to 3.8% nationally, however this is higher than the South West figure of 2.2%[27].
	The number of people in zero hours contacts increased in the South West region between the April to June 2019 and April to June 2020, from 83,000 to 93,000. This is broadly in line with increases at a UK level[74].
	The proportion of residents that commute for work in the West of England is 81.7%, similar to the England and Wales average of 81.2% (2019). The Travel to Work survey (Travel West, 2018) estimates that 44% of West of England employees favour their car to commute versus other modes of transport. With average levels of commuting, and more people using cars as the primary transport, West of England should continue to consider initiatives to encourage the use of alternative modes of transport. Public bus (44%) and trains (45%) currently have the lowest percentages of people satisfied with their normal journeys to and from work. Respondents in Bristol and South

[73] West of England Combined Authority Employment and Skills Plan: Evidence Base. Available online at: West of England Employment & Skills Plan (westofengland-ca.gov.uk)
[74] West of England Combined Authority: Labour Market Update 2021. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2021/02/January-2021-External-LMI-Pack-1.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 45 of 86

Determinant of Health	Baseline Data
	Gloucestershire explained the main reasons they travel by car versus public transport, walking, cycling or car sharing, is (i) it is too far to walk, (ii) they have a quicker journey time travelling by car and lastly (iii) car sharing would not give them sufficient flexibility[75].
	A high proportion of the region's population are employed in night-time industries. These include things such as retail, transport, accommodation, security, health and social care, logistics, and manufacturing sectors.
	Tourism also contributes to the local economy of the West of England. In 2019, over 1 million international staying trips were made to the West of England. In particular, Bath and Bristol featured amongst the top 10 destinations visited in the UK[76]. It is estimated that the visitor economy of the West of England generated £1.8 billion in 2022[77].
Access to Services	Across the West of England Combined Authority, a key concern noted is the increasing reliance by elderly residents on others to gain access to services, especially in rural areas where local facilities and public transport are lacking or limited. Congested roads in city centres also negatively contributes to the poor access to services for many[78].

---

[75] West of England Combined Authority (2019), West of England Economic Connectivity. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2019/02/6.-WofE-LIS-Economic-Connectivity-report.pdf
[76] West of England Combined Authority, West of England Cultural Plan. Available at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2022/02/West-of-England-Cultural-Plan.pdf
[77] West of England Combined Authority, Full Business Case Visit West/Visitor Economy Investment. Available at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2024/06/FBC-Visit-West-full-FINAL.pdf
[78] https://www.westofengland-ca.gov.uk/wp-content/uploads/2021/10/JLTP4-Adopted-Joint-Local-Transport-Plan-4.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 46 of 86

Determinant of Health	Baseline Data
	Bristol City Council has 131 primary schools and 52 secondary schools, Bath and North East Somerset Council has 72 primary schools and 23 secondary schools, North Somerset Council has 72 primary schools and 18 secondary schools, and South Gloucestershire Council has 108 primary schools and 30 secondary schools. This totals 383 primary schools and 123 secondary schools across the WECA area.
Traffic and Transport	The region has strong transport connections in urban areas, with good links to national motorways and rail lines. The MetroWest project will add seven new stations and five new or enhanced rail services by 2028. However, rural and outer urban areas often lack adequate transport infrastructure and services. Major transport routes and infrastructure include: ▪ Sections of the M5, M4, M32, M48, M49, A37, A38, A4 ▪ Direct rail connections to London, Birmingham, Manchester, Edinburgh, Liverpool, Cardiff, Swansea, Exeter, with key stations including Bristol Temple Meads, Bath Spa and Bristol Parkway. ▪ Bristol Airport Heavy traffic flows are common on the M4, M5, and M32 motorways, as well as on several radial routes and roads in Bath and Weston-Super-Mare. Roads connecting towns across the sub-region also experience heavy traffic. To address this, the West of England Combined Authority is collaborating with local authorities to enhance bus services and promote walking and cycling opportunities across the following corridors: ▪ Yate, Chipping Sodbury and Bristol - Improving walking, cycling and public transport for people travelling the A432 and A4174 between Yate / Chipping Sodbury and Bristol ▪ Bristol to Bath Corridor - Improvements on A4 Bristol to Bath. Better bus services and enabling more cycling and walking

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 47 of 86

Determinant of Health	Baseline Data
	- A37/A4108 corridor - Improving walking, cycling and public transport infrastructure along the A37/A4108 corridor - A37/A367 Corridor - Improving 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 - Thornbury, A38 & Bradley Stoke Way - Improving conditions for people walking, cycling and travelling by bus along the Thornbury, A38 and Bradley Stoke Way corridor The West of England Local Cycling and Walking Infrastructure Plan (LCWIP) aims to enhance active travel by improving walking environments on 30 local high streets and creating 55 continuous cycle routes, forming a high-quality, region-wide network[79]. Bristol Airport is vital for the region's competitiveness, supporting inbound tourism and international connectivity, especially with Europe. It connects to five major international hubs (Amsterdam, Dublin, Frankfurt, Munich, and Paris), facilitating onward travel to global destinations. Bristol Port, the UK's most centrally located deep seaport, conducts 67% of its trade with non-EU countries. It is well connected to domestic markets via road and rail, with dedicated motorway junctions on the M5. The port handles over 700,000 vehicles annually and accommodates a diverse range of goods. It is also a key departure point for cruise ships to Northern Europe, Spain, and Portugal[80].

[79] West of England Combined Authority, Local Cycling and Walking Infrastructure Plan. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2022/04/Full-LCWIP-Jan-2021.pdf
[80] West of England Combined Authority (2019), Local Industrial Strategy: Infrastructure Evidence. Available online at: https://www.westofengland-ca.gov.uk/wp-content/uploads/2019/02/5.-WofE-LIS-Infrastructure-report.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 48 of 86

Determinant of Health	Baseline Data
Community Severance, Social Inclusion / Exclusion	Community severance and social inclusion / exclusion is not well observed at the West of England Combined Authority level. In 2021, it is estimated that 20,000 Bristol residents aged 18-64 years experience social isolation as well as up to 11,400 peopled aged over 65 years. Here, loneliness is twice as prevalent in the 10% most derived areas as compared to the 10% least deprived areas. Loneliness is also reported to be higher among disabled groups (12.7%) and those in publicly rented housing (14.7%) as compared to the city average of 4.9%[81]. In 2019/20, 26.84% of the B&NES population experienced loneliness often, always, or some of the time. This is higher than in England, as 22.26% of the country's population experienced feelings of loneliness during the same period[82]. In the 2021/22 period, 5.9% of adult social care users aged over 65 years in South Gloucestershire reported having little social contact with people and feeling isolated, and 19% reported not having enough social contact[83]. In 2011, 23% of the North Somerset population was aged over 65years. Of this, 31% reported feeling lonely sometimes, and 7% reported being lonely often[84].

[81] https://www.bristol.gov.uk/files/documents/1513-jsna-social-isolation/file#:~:text=According%20to%20the%202022%2F23,much%20as%20they%20want%20to.
[82] https://www.bathnes.gov.uk/sites/default/files/BandNES%20Health%20and%20Wellbeing%20Strategy.pdf
[83] https://beta.southglos.gov.uk/static/e79c759c6b74ad0a48cddc81054c4a2c/Ageing-Well-Needs-Assessment-2024.pdf
[84] https://www.n-somerset.gov.uk/sites/default/files/2020-03/social%20isolation%20and%20loneliness%20strategy%20-%20September%202019.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 49 of 86

Determinant of Health	Baseline Data
Landscape / Townscape and Tranquillity	In WECA and North Somerset, there are two National Landscapes, Mendip Hills National Landscape, and Cotswolds National Landscape.

The region includes several NCAs: the Bristol, Avon Valleys, and Ridges NCA (urban areas and countryside), the Somerset Levels and Moors NCA (flat, low-lying landscape with rich agricultural land), and the Mendip Hills NCA (distinctive geological formations and natural habitats).

North Somerset features a diverse mix of natural and built environments, including coastal areas, rolling hills, and urban centres. The Mendip Hills, National Landscape, offer dramatic limestone escarpments, ancient woodlands, and open grasslands[85].

Weston-Super-Mare's coastal areas feature expansive beaches, sand dunes, and estuarine landscapes, providing vital habitats for wildlife and recreational spaces for residents and visitors.

North Somerset's townscape features historic towns, modern developments, and rural villages. Weston-Super-Mare is known for its Victorian and Edwardian architecture and seaside attractions. Clevedon boasts a historic pier and Victorian houses. Nailsea and Portishead blend modern amenities with historical roots through recent development.

The Mendip Hills LCA features rugged terrain, limestone formations, and rich biodiversity. The Gordano Valley LCA contrasts with low-lying wetlands and woodlands. Coastal LCAs around Weston-Super-Mare and Clevedon emphasize the coastal environment's impact on local character and land use. |

[85] North Somerset Council, 2024, North Somerset Local Plan 2036 Sustainability Appraisal: Scoping Report, Available at:2. North Somerset Local Plan 2036 Sustainability Appraisal: Scoping Report - Local Plan 2036: Issues and Options Stage - North Somerset Council Consultations (inconsult.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 50 of 86

6.5 Wiltshire Council

6.5.1. Between the last two censuses (held in 2011 and 2021), the population of Wiltshire increased by 8.4%, from around 471,000 in 2011 to around 510,300 in 2021. The population here increased at a similar rate to the overall population of the South West (7.8%), but by a greater percentage than the overall population of England (up 6.6% since the 2011 Census)[86].

6.5.2. Wiltshire has a low population density of 157 people per square kilometre (km^2), compared to the national average of 434 people per km^2. This area was among the lowest 15% for population density across English local authority areas at the last census[14].

6.5.3. Between the last two censuses, the average (median) age of Wiltshire increased by two years, from 42 to 44 years of age. This area had a similar average (median) age to the South West as a whole in 2021 (44 years) but a higher average (median) age than England (40 years). The number of people aged 50 to 64 years rose by around 15,800 (an increase of 17.0%), while the number of residents between 35 and 49 years fell by around 9,700 (9.4% decrease).

Table 6-4 – Wiltshire Council Community Profile

Determinant of Health	Baseline Data
Exercise and Physical Activity	The proportion of adults in Wiltshire who are physically active has fallen from 2021/22-2022/23, from 71.9% to 70.6%, meaning it performs similarly to the national average (67.1%).

---

[86] Office for National Statistics, 2023, How life has changed in Wiltshire: Census 2021, Available at: How life has changed in Wiltshire: Census 2021 (ons.gov.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 51 of 86

Determinant of Health	Baseline Data
Housing	In 2021, 68% of homes in Wiltshire were owned, compared to 17.5% as privately rented, and 14.5% publicly rented, of a total 215,081 households. As of September 2024, the average house price in Wiltshire was £332,000, a 1.6% increase on the 2023 figure of £327,000. This is higher than the average for the South West and that for Great Britain, which in September 2024 was £319,000 and £294,000 respectively[19].
Air Quality and Odour	The air quality in Wiltshire is predominantly very good, with the majority of the county having clean, unpolluted air. There are, however, a small number of locations where the combination of traffic, road layout and topography result in pollutants being trapped so that concentrations increase to unacceptable levels[87]. Two pollutants cause most concern within Wiltshire: nitrogen dioxide (NO_2) and particulate matter (PM10) primarily from motor vehicles. There are currently eight AQMAs across Bradford on Avon, Calne, Devizes, Marlborough, Westbury and three in Salisbury. The specific actions being taken in these towns is detailed in Wiltshire's Air Quality Action Plan (WAQAP)[88]. The three AQMAs declared for Salisbury include: the city centre, the A30 London Road between St Mark's roundabout and the railway allotments, and Wilton Road between St Paul's roundabout and Skew Bridge which is part of the A36 trunk road and falls within the control of National Highways.

---

[87] Air Quality Strategy for Wiltshire 2019-2024
[88] Wiltshire Council 2022 Air Quality Annual Status Report (ASR)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 52 of 86

Determinant of Health	Baseline Data
Noise	Road traffic noise levels across Wiltshire are lower than other local authorities in the Sout West region. The highest average noise level at 75dB emanates from the M4 to the north of the Local Authority area at Royal Wootton Bassett. Lower average noise levels of 70.0-74.9dB are reported along quieter roads in the LA, including A36 and A303 at Wylye. Rail traffic noise levels are not reported in Wiltshire[23].
Potential for Flood Risk	In Wiltshire, several areas are at risk of flooding, although coastal erosion is not a concern since the county is inland. Key areas at risk include: ■ Trowbridge: This town is prone to flooding from the River Biss, especially during heavy rainfall ■ Chippenham: The River Avon runs through Chippenham, making it susceptible to river flooding ■ Salisbury: Areas around the River Avon and its tributaries in Salisbury are at risk of flooding ■ Malmesbury: This town is vulnerable to flooding from the River Avon and its tributaries[89].
Crime and Antisocial Behaviour	Of 285 LSOAs in Wiltshire, 233 were in the 50% least deprived for the crime domain as of 2019[90]. Between 2018-2022, almost 17,000 offences of this criminal damage were recorded by Wiltshire Police, equivalent to a rate of 67.2 offences per 10,000 persons across the county. Rates were higher than Wiltshire's average in the following community areas: Melksham, Salisbury, Trowbridge, Warminster and Westbury. In the same period, almost 4,700 sexual offences were recorded in Wiltshire, this is equivalent to a rate of 18.7 per 10,000 persons across the county and an average of

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 53 of 86

Determinant of Health	Baseline Data
	approximately 900 offences of this type per year. These offences were particularly high in Salisbury and Devizes community areas[91].
	In Wiltshire, there were 21.5 violent offences per 1,000 recorded in 2022/23. This was significantly lower than the national average of 34.4. In a measurement of hospital admissions for violence (including sexual violence) the figure for the period 2020/21-2022/23 was also 21.5, again significantly lower than the national average of 34.3.
Economy and Employment	Between April 2023 and March 2024, Wiltshire had 254,200 economically active individuals, representing 81.5% of its population. This is slightly higher than the South West region's economic activity rate of 81.0% and notably above the Great Britain average of 78.6%. During the same period, Wiltshire's economic inactivity rate was 18.5%, with 54,600 individuals inactive. This is lower than the South West's 19.0% and Great Britain's 21.4%. Among the economically inactive in Wiltshire, 22.8% were students, 20.6% were looking after family/home, 25.5% were long-term sick, and 18.9% were retired[92].
	The average salary in Wiltshire is approximately £30,000 per year. This figure varies significantly across different sectors, with higher salaries typically found in professional, scientific, and technical activities[93].

---

[91] Wiltshire Intelligence, 2018-2022 , Community Area Joint Strategic Needs Assessment (CASJANA), Available at: CAJSNA Wiltshire Intelligence
[92] Office for National Statistics, 2023-24, Labour Market Profile- Wiltshire, Available at: Labour Market Profile - Nomis - Official Census and Labour Market Statistics (nomisweb.co.uk)
[93] Beauhurst, 2022, Analysis Report: Economic and Business Activity in Wiltshire, Available at: Analysis Report: Economic and Business Activity in Wiltshire - UK Data

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 54 of 86

Determinant of Health	Baseline Data
	Wiltshire's economy is diverse, with key sectors including professional, scientific, and technical activities, retail trade, and construction. Emerging industries such as food and drink processing and healthcare products are also seeing growth.

Wiltshire has a robust workforce with around 188,937 employees. The job market is expanding, with a 7.19% increase in employee numbers recently. The region supports a variety of roles, particularly in small and medium enterprises (SMEs), which form the backbone of the local economy. Between April 2023 and March 2024, 55.2% of Wiltshire's workforce were in higher-level occupations (managers, professionals, and associate professionals), surpassing regional and national averages. Administrative and skilled trades roles accounted for 20.5%, while 12.7% were in service and sales jobs. Lastly, 11.6% were in machine operative and elementary occupations, lower than both the South West and Great Britain averages[14].

While Wiltshire generally enjoys a good standard of living, there are areas of deprivation, particularly in some rural and urban pockets. These areas face challenges such as lower income levels and limited access to services[14].

Wiltshire's economy is growing, with a notable increase in the number of active businesses. In the last two years, 2,932 new companies were formed, indicating a strong entrepreneurial spirit. The region's GDP growth is supported by its diverse economic base and strategic location[14]. |

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 55 of 86

Determinant of Health	Baseline Data
	The workforce in Wiltshire is well-educated, with a significant proportion holding higher education qualifications. Around 40% of the working-age population have a degree or higher qualification, which supports the region's professional and technical sectors[94].
	The unemployment rate in Wiltshire is relatively low, reflecting the region's economic health. However, there are ongoing efforts to address employment disparities and support those in lower-income jobs.
	Wiltshire benefits from its strategic location and infrastructure, including good transport links and proximity to major cities like Bristol and London. This connectivity supports business growth and attracts investment.
	Key challenges for Wiltshire include addressing rural deprivation, improving digital connectivity, and ensuring that the workforce is equipped with the skills needed for emerging industries. There is also a need to support gender diversity in business leadership.
	Tourism plays a significant role in Wiltshire's economy. In 2019, the tourism sector contributed approximately £1.5 billion to the local economy[95]. However, the COVID-19 pandemic had a substantial impact, reducing the value of tourism to £600 million in 2020. The sector has been on a

[94] Wiltshire Intelligence, 2024, Community Area Joint Strategic Needs Assessment (CASJANA), Available at: CAJSNA 2024 - Economy Wiltshire Intelligence
[95] Visit Wiltshire, 2021, Recovery and Realignment Wiltshire Tourism Recovery Plan, Available at: Wiltshire Tourism Recovery Plan 2021.pdf (visitwiltshire.co.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 56 of 86

Determinant of Health	Baseline Data
	recovery path, with projections indicating a gradual return to pre-pandemic levels by 2024. The tourism industry supports around 29,000 jobs, accounting for 8% of all employment in the county[96]. Popular Attractions in Wiltshire include: ■ Stonehenge; ■ Salisbury Cathedral; ■ Longleat; ■ Avebury; and ■ Stourhead.
Access to Services	Like Gloucestershire, Wiltshire is a largely rural county with many historic towns and villages. As such, there are small and isolated pockets of access deprivation. In addition, an increasingly elderly population here will present significant access challenges to service providers. Whilst private car ownership is high in Wiltshire at 40%, access to education, employment and leisure facilities can be particularly difficult for those who do not have access to a car in more rural areas[97]. Wiltshire Council has 229 primary schools and 57 secondary schools. 10% of Wiltshire's schools are private schools[35].
Traffic and Transport	Wiltshire's highway infrastructure encompasses nearly 4,500km of roads, 3.9 million m^2 of footways, 1,500 bridges, and over 40,000 streetlights. This extensive network has an estimated replacement

[96] David Andrews, 2018, Economic Impact of Wiltshire's Visitor Economy 2017, Available at: Economic Impact of Wiltshire Tourism 2016.pdf (visitwiltshire.co.uk)
[97] https://www.wiltshire.gov.uk/media/7615/Wiltshire-Local-Transport-Plan-2011-2026-Strategy/pdf/ltp3-strategy.pdf?m=1637232788197

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 57 of 86

Determinant of Health	Baseline Data
	value exceeding £5 billion[98]. The strategic road network includes major routes such as the M4 motorway, which provides vital east-west connectivity, and the A303, a key arterial route linking the South West to London. Public transport includes bus services, with a focus on improving these through initiatives like the Bus Service Improvement Plan[99]. Additionally, there are efforts to enhance cycling and walking infrastructure, with Local Cycling and Walking Infrastructure Plans (LCWIPs) being developed[100]. The area is also well served by a number of railway stations, connecting the county to key cities including Bristol, Reading, and London.
Community Severance, Social Inclusion / Exclusion	In 2016/17, the portion of residents in Wiltshire who reported having enough contact with other people was only 24.9%. A map of loneliness in Wiltshire reveals an average risk across the local authority area, with clusters of higher and highest risk around Tidworth, Salisbury, Warminster, and Corsham[101].
Landscape / Townscape and Tranquillity	In Wiltshire, there are three National Landscapes, the Cotswolds National Landscape, the Cranbourne Chase National Landscape, and North Wessex Downs National Landscape.

[98] Wiltshire Council (2018) Well Managed Highways Infrastructure. Available at: https://cms.wiltshire.gov.uk/documents/s149080/Report%20Well%20Managed%20Highway%20Infrastructure%20Review.pdf
[99] Wiltshire Council, Transport. Available at: https://www.wiltshire.gov.uk/transport
[100] Wiltshire Council, Local cycling and Walking Infrastructure Plans (LCWIPs). Available at: https://www.wiltshire.gov.uk/article/1723/Active-Travel-Infrastructure-Plans
[101] https://wiltshireintelligence.org.uk/wp-content/uploads/2018/02/JSNA-OP-ONLINE-VERSION-S.pdf

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 58 of 86

Determinant of Health	Baseline Data
	The county's countryside features rolling downlands, chalk river valleys, low-lying vales, and ancient forests. The chalklands of the North Wessex Downs, Salisbury Plain, Cranborne Chase, and West Wiltshire Downs offer undulating scenery with large fields, isolated tree clumps, and dramatic escarpments, home to famous chalk carvings like white horses and regimental badges[102]. Wiltshire's townscape is varied, with settlements in river valleys or below escarpments. Villages feature traditional materials like brick, stone, flint, and thatch. Historic towns like Salisbury, Marlborough, and Devizes showcase medieval, Georgian, and Victorian architecture, reflecting the county's long history[103].

The county includes several LCAs: Marlborough Downs, North Wessex Downs (rolling chalk hills, arable farming), Salisbury Plain, The Vale of Pewsey and West Wiltshire Downs (open grasslands, military training areas), and the Cotswolds.

The Marlborough Downs LCA features open downland and significant archaeological sites like ancient trackways and burial mounds. The Vale of Pewsey LCA includes arable farmland, pasture, and small villages. The Salisbury Plain LCA is known for its military training areas and large open grasslands[104]. |

---

[102] Wiltshire Council, 2024, Landscape Conservation, Available at: Landscape conservation - Wiltshire Council
[103] RSPB, The Severn Estuary. Available Online At: Https://Rspb.Org.Uk/Helping-Nature/What-We-Do/Influence-Government-And-Business/Casework/The-Severn-Estuary
[104] Wiltshire County Council, 2008, South Wiltshire Settlement Settling Assessment 2008- Chapter 2: Methodology, Available at: Microsoft Word - 11106001R SettlementSettings_DW_02-08.doc (wiltshire.gov.uk)

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 59 of 86

7 Assessment of Effects

7.1 Introduction

7.1.1. The analysis of health impacts has focussed on the determinants of health which have been identified as most likely to be affected by the Plan. These fall into the following categories;

- Exercise and physical activity;
- Housing (tenure and condition);
- Air quality and odour;
- Noise;
- Flood risk;
- Crime and antisocial behaviour (community safety);
- Economy and employment;
- Access to services (Medical services; other caring services; public amenities; education and training);
- Traffic and transport;
- Community severance, social inclusion/exclusion; and
- Landscape/townscape and tranquillity.

7.1.2. The grouped SIP proposals (as outlined in the methodology, **Section 4.3**) have been assessed against each of the above, using baseline conditions set out in **Section 6** to identify the anticipated effect on the health of the receptor population.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 60 of 86

7.2 Public Transport (Services)

7.2.1. **Table 7-1** below presents the assessment for Public Transport (Services) SIP Proposals

Table 7-1 – Public Transport (Services) SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	Proposals under the Public Transport (services) grouping aim to improve bus and rail services, particularly through increased service frequency, and improved connectivity. These proposals could encourage a modal shift away from private vehicle usage and towards public transport. With this, physical activity by means of walking from transport terminals, and to and from start and end destinations will increase. This is unlike private vehicle journeys where door to door servicing is possible. As a result, proposals under this group are anticipated to improve exercise and physical activity across the Western Gateway STB region.
Housing	Improved connectivity, such as the proposed long-distance coach connections will facilitate living arrangements outside of main city centres. Housing prices across the West of England Combined Authority are significantly higher than other local authorities in the Western Gateway STB region, with the average house price in Bristol at £354,000 in September 2024. With improved connectivity, people will be better positioned to live outside of the city centre, accessing lower housing prices..
Air Quality and Odour	The modal shift encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions this will facilitate will improve air quality across the Western Gateway STB region. This will particularly benefit those who suffer with chronic health conditions such as chronic obstructive pulmonary disease (COPD) or asthma.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 61 of 86

Determinant of Health	Assessment
Noise	The modal shift encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent noise pollution from idling vehicles will facilitate improved noise levels across the Western Gateway STB region.
Potential for Flood Risk	Improvements to public transport services are not anticipated to directly impact on flood risk across the Western Gateway STB region. As noted in **Section 6** above, areas including coastal Bournemouth such as Hengistbury Head, Gloucestershire towns surrounding the River Severn like Tewkesbury, and Bristol in proximity to the River Avon, are all at risk of flooding. As such, any enhancement of public transport services under this proposal group must be done so in conjunction with local flood maps, planning routes that avoid high risk areas and putting plans in place for when flood events do occur in transit. The risk of public transport being disrupted due to flooding has the potential to leave people unable to reach their destination which can cause inconvenience and stress, and in some cases could impact individual safety. This is particularly relevant for older people and people with reduced mobility who may be restricted in their ability to complete the remainder of their journey should they be stranded (e.g. by being unable to walk). Disrupted journeys can impact peoples ability to reach employment or education, as well as other services resulting in impacts on young people, older people and women.
Crime and Antisocial Behaviour	Fear of crime and, to a much lesser extent crime itself, can deter people from using public transport. Children and young people can often be prevented from using public transport and public spaces because of their parents' fears about crime, whilst crime and safety concerns on public transport can often act as a barrier to employment and training for women and girls. The modal shift towards public transport encouraged under this proposal will need to be considerate of community safety for all users, particularly for women and girls who often experience elevated feelings of fear in these spaces.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 62 of 86

Determinant of Health	Assessment
Economy and Employment	Improvements to public transport services under this proposal group could improve access to employment and education, especially in instances of more frequent services by rail and bus on key corridors within city centres and local towns. The introduction of an hourly direct train service between Bristol and Oxford could open up new opportunities for residents previously unable to travel this route in such an efficient and convenient way. This will particularly benefit those that are currently economically inactive or unemployed and living in access deprived areas. The modal shift towards public transport and reduction in private vehicles encouraged under this proposal group will likely reduce traffic within city centres, potentially improving reliability of travel times and overall access to employment opportunities.
Access to Services	Across each local authority in the Western Gateway STB region, access deprivation can be seen to cluster in urban areas where car ownership is lower, meaning residents in these locations can experience severance from services in instances where public transport is insufficient. Additionally, in Wiltshire and Gloucestershire where elderly residents experience a decline in general health and are no longer able to drive, they may experience a degree of severance from essential services like healthcare facilities. Improved public transport services will facilitate better access to key services including healthcare and educational facilities as well as community groups and recreational or social groups. Additional services to cities outside of the Western Gateway STB region (as is proposed under the Bristol to Oxford direct rail) could also alleviate pressure on existing services in the area, allowing residents access to a wider range of choices to suit their needs and preferences.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 63 of 86

Determinant of Health	Assessment
Traffic and Transport	The modal shift towards public transport encouraged under this proposal group could result in reduced congestion on main roads and key transport corridors, as individuals use public transport instead of private vehicles. Lowering traffic flows will also result in a reduction in the number of collisions involving private vehicles, pedestrians and cyclists. As safety concerns can be a barrier to walking and cycling for commuting purposes, reductions in traffic may help to reduce fear and intimidation and encourage more people to seek out active travel options. This is likely to result in a direct and indirect beneficial impacts on the general population.
Community Severance, Social Inclusion / Exclusion	Access to social networks is important for an individuals wellbeing, without which residents can experience feelings of loneliness and social isolation. Where individuals experience geographical isolation from these social networks, improvements to public transport services, especially the frequency of select bus and rail routes, is likely to increase peoples accessibility to these social networks, creating a happier and healthier population. In particular, the bus strategy proposed as part of a Joint Local Transport Plan, looking at enhancing bus service frequency across the urban and rural network will support loneliness alleviation.
Landscape / Townscape and Tranquillity	In general, a potential reduction in private vehicle journeys (resultant from the encouraged shift to public transport services) will have positive effects on the tranquillity of the affected areas. Increased tranquillity is likely to be associated with reduced levels of congestion, noise and air pollution, all contributing to a happier and healthier population across the Western Gateway STB region.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 64 of 86

7.3 Public Transport (Infrastructure)

7.3.1. **Table 7-2** below presents the assessment for Public Transport (Infrastructure) SIP Proposals

Table 7-2 – Public Transport (Infrastructure) SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	Proposals under the public transport (infrastructure) grouping aim to boost bus and rail facilities through the construction of new corridors, lines and stations, as well as upgrades to existing infrastructure to increase capacity and accessibility. Under this proposal group, projects will benefit the exercise and physical activity levels of the general population across the Western Gateway STB region. For example, the bus corridor package in Bath, which involves a series of strategic transport corridors focused on radial routes between Bath and surrounding areas prioritising bus, walking, and cycling measures over each corridor. Improved public transport infrastructure would support a modal shift to public transport which could lead to improvements in exercise and physical activity levels of the population across the Western Gateway STB region.
Housing	New public transport connections (including the proposed Metrowest Phase 1 delivering the Portishead line with new stations at Pill in Bristol and Portishead in North Somerset, and Metrowest Phase 2 delivering the Henbury line to North Filton) will facilitate living arrangements outside of main city centres. Housing prices across the West of England Combined Authority are significantly higher than other local authorities in the Western Gateway STB region, with the average house price in Bristol at £354,000 in September 2024. With improved connectivity, people will be better positioned to live outside of the city centre, accessing lower housing prices.
Air Quality and Odour	The modal shift encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions this will facilitate will improve air quality across the

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 65 of 86

Determinant of Health	Assessment
	Western Gateway STB region. Proposals requiring large-scale construction such as the rail electrification between Chippenham to Bristol Temple Meads through Bath Spa will result in elevated air quality pollution via dust generation in the immediate area for a temporary period of time.
Noise	The modal shift encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent noise pollution from idling vehicles this will facilitate will improve noise levels across the Western Gateway STB region. Proposals requiring large-scale construction such as the rail electrification between Chippenham to Bristol Temple Meads through Bath Spa will result in elevated noise levels in the immediate area for a temporary period of time.
Potential for Flood Risk	Improvements to public transport capacity and accessibility under this proposal group are not anticipated to directly impact on flood risk across the Western Gateway STB region. As noted in **Section 6** above, areas including coastal Bournemouth such as Hengistbury head, Gloucestershire towns surrounding the River Severn like Tewkesbury, and Bristol in proximity to the River Avon, are all at risk of flooding. As such, any enhancement of public transport infrastructure under this proposal group must be done so in conjunction with local flood maps, planning routes that avoid high risk areas and putting plans in place for when flood events do occur in transit. This will help to protect the health of the entire population of the Western Gateway STB region. It is anticipated that rail electrification under this policy group, including the Chippenham to Bristol Temple Meads via Bath Spa line, will support climate change mitigation efforts and indirectly alleviate future flood risk across the Western Gateway STB region.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 66 of 86

Determinant of Health	Assessment
Crime and Antisocial Behaviour	Fear of crime and, to a much lesser extent crime itself, can deter people from using public transport. Improvements to customer facilities at Bournemouth station, as well as the commitment to a full suite of accessible railway stations in BCP will improve the safety and comfortability of public transport setting, and are anticipated to alleviate this fear and facilitate greater uptake of public transport by residents.
Economy and Employment	Improvements to public transport infrastructure under this proposal group have the opportunity to improve access to employment and education, especially in instances of new and more frequent services by rail and bus on key corridors within city centres and local towns. Additional loops between Yale and Gloucester, Metrowest Phase 1 and 2, Bristol Temple Meads Platform 0, Westbury Platform 0 and the Dorset Metro Shuttle are all projects proposed under this group to add to and improve existing journey options across the Western Gateway STB region. This will particularly benefit those that are currently economically inactive or unemployed and living in access deprived areas.

The modal shift towards public transport and reduction in private vehicles encouraged under this proposal group will likely reduce traffic within city centres, potentially improving reliability of travel times and overall access to employment opportunities. |
| Access to Services | Across each local authority in the Western Gateway STB region, access deprivation clusters in urban areas where car ownership is lower, meaning residents in these locations can be cut off from services. Additionally, in Wiltshire and Gloucestershire where residents are ageing, fewer people are able to make use of private vehicles for essential service travel. Improved public transport infrastructure will facilitate better access to key services including healthcare and educational facilities. In improving the accessibility of stations and interchange points (including step free rail stations), proposals under this group also facilitate improved access to services by disabled users and those with other mobility impairments. |

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 67 of 86

Determinant of Health	Assessment
	Additionally, the improvement of customer facilities at Bournemouth station, including the creation of a new mobility hub and installation of lifts, will improve accessibility for disabled users and those with other mobility impairments.
Traffic and Transport	The modal shift towards public transport and reduction in private vehicles encouraged under this proposal group will likely reduce congestion on main roads and key transport corridors, indirectly improving air quality and noise levels in busy areas.
	Lowering traffic flows will also result in a reduction in the number of collisions involving private vehicles, pedestrians and cyclists. As safety concerns can be a barrier to walking and cycling for commuting purposes, reductions in traffic may help to reduce fear and intimidation and encourage more people to seek out active travel options. This is likely to result in a direct and indirect beneficial impacts on the general population.
	Upgrades to existing stations under this proposal group, including the Gloucester station layout improvements project, will also work to improve future capacity for additional local services supporting future on-road traffic alleviation.
Community Severance, Social Inclusion / Exclusion	Access to social networks is important for an individuals wellbeing, without which residents can experience feelings of loneliness and social isolation. Particularly where individual's experience geographical isolation from these networks, improvements to public transport infrastructure, especially upgrades that facilitate new and additional services, is likely to increase people's accessibility to these social networks.
	For those who experience isolation due to disability or mobility impairment, accessibility improvements to rail and bus stations proposed under this proposal group will support social inclusion.
Landscape / Townscape and Tranquillity	In general, a reduction in private vehicle journeys will have positive effects on the tranquillity of the affected areas. Increased tranquillity is likely to be associated with reduced levels of

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 68 of 86

Determinant of Health	Assessment
	congestion, noise and air pollution, all contributing to a happier and healthier population across the Western Gateway STB region. Larger infrastructure projects such as the creation of Strategic Interchange Hubs at Gloucester may increase noise and air pollution in the immediate vicinity, therefore having adverse effects on townscape tranquillity.

7.4 Active Travel

7.4.1. **Table 7-3** below presents the assessment for Active Travel SIP Proposals

Table 7-3 – Active Travel SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	The delivery of regional active travel routes and consolidated package of walking and cycling projects across the West of England will support opportunities for exercise and physical activity across the Western Gateway STB region. A more coherent network over urban areas will encourage the uptake of active travel for commuting purposes, reducing the reliance on private vehicles and supporting increased levels of exercise and physical activity for the general population. For such measures to bring positive health effects to all residents, accessibility measures including path width and appropriate signage must be considered.
Housing	The improved active travel capacity of urban areas, particularly routes that connect major centres of population with employment, will enable a wider zone of housing opportunities for working age residents, particularly those without access to a private car, and/or those who might commute by active travel. With an expanded network of walking and cycling paths, people will be able to live further out of dense urban areas where, accessing lower housing prices and freeing up income to spend on other health and wellbeing expenses. Active travel

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 69 of 86

Determinant of Health	Assessment
	is anticipated to positively affect housing to a lesser extent than both public transport SIP proposals assessed above.
Air Quality and Odour	The modal shift towards active travel encouraged under this proposal could reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions this will facilitate will improve air quality across the Western Gateway STB region.
Noise	The modal shift towards active travel encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent noise pollution from idling vehicles this will facilitate will improve noise levels across the Western Gateway STB region.
Potential for Flood Risk	Improvements to active travel opportunities under this proposal group are not anticipated to directly impact on flood risk across the Western Gateway STB region.
Crime and Antisocial Behaviour	Fear of crime and, to a much lesser extent crime itself, can deter people from using active travel routes, particularly at night. Projects proposed under this group should be considerate of appropriate lighting and other safety measures to facilitate greater uptake of active travel by residents, as well as increase levels by existing active travel commuters. Improvements to customer facilities at Bournemouth station, as well as the commitment to a full suite of accessible railway stations in BCP will improve the safety and comfortability of public transport setting, and are anticipated to alleviate this fear and facilitate greater uptake of public transport by residents.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 70 of 86

Determinant of Health	Assessment
Economy and Employment	Improvements to active travel opportunities under this proposal group could improve access to employment and education. Where shorter journey needs can be met by an improved active travel route network across the region, this will particularly benefit those that are currently economically inactive or unemployed and living in access deprived areas, particularly those without access to a private car. The proposal to connect active travel routes to regional gateways, involving linking areas of BCP, Dorset and Hampshire will enable residents to reach employment and education opportunities beyond their immediately local authority area of residence.
Access to Services	Across each local authority in the Western Gateway STB region, access deprivation can be seen to cluster in urban areas where car ownership is lower, meaning residents in these locations can be cut off from services. Improved active travel infrastructure will potentially facilitate better access to key services including healthcare and educational facilities.
Traffic and Transport	The modal shift towards active travel and reduction in private vehicles encouraged under this proposal group could reduce congestion on main roads and key transport corridors, indirectly improving air quality and noise levels in busy areas.

Lowering traffic flows will also result in a reduction in the number of collisions involving private vehicles, pedestrians and cyclists. As safety concerns can be a barrier to walking and cycling for commuting purposes, reductions in traffic may help to reduce fear and intimidation and encourage more people to seek out active travel options. This is likely to result in a direct and indirect beneficial impacts on the general population. Improvements to the coherence of active travel paths will also boost safety for all users in the first instance. However, in instances of shared user space, there could be an increased risk of pedestrian and cyclist collision, particularly for residents who experience reduced mobility or have limited sight and / or hearing. |

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 71 of 86

Determinant of Health	Assessment
Community Severance, Social Inclusion / Exclusion	Access to social networks is important for an individuals wellbeing, without which residents can experience feelings of loneliness and social isolation. Particularly where individual's experience geographical isolation from these networks, improvements to active travel opportunities are likely to increase peoples accessibility to these social networks, creating a happier and healthier population.
Landscape / Townscape and Tranquillity	An extended active travel network of walking and cycling paths will likely improve the tranquillity of local areas. Increased tranquillity is likely to be associated with reduced levels of congestion, noise and air pollution, all contributing to a happier and healthier population across the Western Gateway STB region. Active travel routes may also enable people to access and experience areas of tranquillity across the Western Gateway SIP region.

7.5   Mass Transit

7.5.1.   **Table 7-4** below presents the assessment for Mass Transit SIP Proposals

Table 7-4 – Mass Transit SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	The single proposal under the mass transit group aims to deliver bus based Mass Rapid Transit, providing a high quality and fast public transport connection through the urban areas of Gloucester and Cheltenham connecting those major settlements to Strategic Interchange hubs. This proposal will likely encourage a modal shift away from private vehicle usage, with the provision of park and ride services, and towards public transport. With this, physical activity by means of walking from transport terminals to and from start and end destinations

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 72 of 86

	will increase. This is unlike private vehicle journeys where door to door servicing is possible. As a result, proposals under this group are anticipated to improve exercise and physical activity for residents of Gloucester and Cheltenham.
Housing	Improved public transport connection, as proposed under the Mass Rapid Transit & Strategic Interchange (Waterwells P&R / Cheltenham Racecourse P&R) scheme will facilitate living arrangements outside of main city centres. With improved connectivity and faster services, people will be better positioned to live outside of the urban centres, accessing lower housing prices and freeing up income.
Air Quality and Odour	The modal shift encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions this will facilitate will improve air quality for residents of Gloucester and Cheltenham.
Noise	The modal shift encouraged under this proposal will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent noise pollution from idling vehicles this will facilitate will improve noise levels or residents of Gloucester and Cheltenham.
Potential for Flood Risk	Improvements to public transport services are not anticipated to directly impact on flood risk for residents of Gloucester and Cheltenham. As noted in **Section 6** above, areas including Gloucestershire towns surrounding the River Severn like Tewkesbury, are at risk of flooding. As such, the delivery of new of public transport services under this proposal group must be done so in conjunction with local flood maps, planning routes that avoid high risk areas and putting plans in place for when flood events do occur in transit. This will help to protect the health of the entire population of the Western Gateway STB region.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 73 of 86

Crime and Antisocial Behaviour	Fear of crime and, to a much lesser extent crime itself, can deter people from using public transport. Children and young people can often be prevented from using public transport and public spaces because of their parents' fears about crime, whilst crime and safety concerns on public transport can often act as a barrier to employment and training for women and girls. The modal shift towards public transport encouraged under this proposal will need to be considerate of community safety for all users.
Economy and Employment	New high quality and fast public transport connections under this proposal group have the opportunity to improve access to employment and education, especially in light of plans to connect major settlements of Gloucester and Cheltenham to strategic interchange hubs. This will particularly benefit those that are currently economically inactive or unemployed and living in access deprived areas. The modal shift towards public transport and reduction in private vehicles encouraged under this proposal group will likely reduce traffic within city centres, potentially improving reliability of travel times and overall access to employment opportunities.
Access to Services	Across each local authority in the Western Gateway STB region, access deprivation can be seen to cluster in urban areas where car ownership is lower, meaning residents in these locations can be cut off from services. Additionally, across Gloucestershire where there is an aging resident population, fewer people are able to make use of private vehicles for essential service travel. Improved public transport services will facilitate better access to key services including healthcare and educational facilities.
Traffic and Transport	The modal shift towards public transport and reduction in private vehicles encouraged under this proposal group will likely reduce congestion on main roads and key transport corridors, indirectly improving air quality and noise levels in busy areas.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 74 of 86

Community Severance, Social Inclusion / Exclusion	Access to social networks is important for an individuals wellbeing, without which residents can experience feelings of loneliness and social isolation. Particularly where individual's experience geographical isolation from these networks, improvements to public transport services, especially the connectivity of major settlements, is likely to increase peoples accessibility to these social networks
Landscape / Townscape and Tranquillity	In general, a reduction in private vehicle journeys will have positive effects on the tranquillity of the affected areas. Increased tranquillity is likely to be associated with reduced levels of congestion, noise and air pollution, all contributing to a happier and healthier population across the Western Gateway STB region.

7.6 Road

7.6.1. **Table 7-5** below presents the assessment for dedicated Road SIP Proposals. Additional road options are identified and assessed as components of the Mixed category below in **Section 7.8**.

Table 7-5 – Road SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	Improvements to highways will likely sustain current private vehicle usage levels and existing traffic flows. This is anticipated to act as a barrier to encouraging active travel across the Western Gateway STB region, having negative effects on exercise and physical activity levels and subsequent overall health of the population.
Housing	Improvements to the A350 / A303 are not anticipated to directly impact on housing across the Western Gateway STB region.
Air Quality and Odour	Improvements to highways will likely sustain current private vehicle usage levels and existing traffic flows. This is anticipated to act as a barrier to any air quality improvements made

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 75 of 86

Determinant of Health	Assessment
	possible by other SIP proposals. This will likely have long-term adverse health effects on road users / residents in close proximity to the carriageway.
Noise	Improvements to highways will likely sustain current private vehicle usage levels and existing traffic flows. This is anticipated to act as a barrier to any noise pollution improvements made possible by other SIP proposals.
Potential for Flood Risk	Improvements to the A350 / A303 are not anticipated to directly impact on flood risk across the Western Gateway STB region.
Crime and Antisocial Behaviour	Improvements to the A350 / A303 are not anticipated to directly impact on crime and antisocial behaviour across the Western Gateway STB region.
Economy and Employment	Improvements to the A350 / A303 are not anticipated to directly impact on economy and employment across the Western Gateway STB region. An increased capacity via widening and junction improvements may support road-based delivery of goods, having an indirect positive effect on the economy of the local area.
Access to Services	Improvements to the A350 / A303 are not anticipated to directly impact on access to services across the Western Gateway STB region. An increased capacity via widening and junction improvements may support road-based transport, having an indirect positive effect on the access to services for the local area.
Traffic and Transport	Junction widening and improved signage as proposed under this group will result in improved driver safety as well as a reduction in the number of collisions involving private vehicles, pedestrians and cyclists. As safety concerns can be a barrier to walking and cycling for commuting purposes, safer traffic flows along key walking and cycling routes may

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 76 of 86

Determinant of Health	Assessment
	help to reduce fear and intimidation and encourage more people to seek out active travel options. This is likely to result in a direct and indirect beneficial impacts on the general population.
Community Severance, Social Inclusion / Exclusion	Improvements to the A350 / A303 are not anticipated to directly impact on community severance, social inclusion / exclusion across the Western Gateway STB region.
Landscape / Townscape and Tranquillity	Junction widening and increased capacity for westbound right-turn movements proposed under this scheme will support improved traffic flows along the A350 and A303, reducing congestion and having positive effects on the tranquillity of the affected areas.

7.7   Freight

7.7.1.   **Table 7-6** below presents the assessment for dedicated Freight SIP Proposals. Additional freight options are identified and assessed as components of the Mixed category below in **Section 7.8**.

Table 7-6 – Freight SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	Improvements brought about by the Port of Poole Expansion are not anticipated to directly impact on exercise and physical activity across the Western Gateway STB region.
Housing	Whilst the Port of Poole Expansion scheme proposed under this group involves support of local plan housing, further information is required to fully assess the resultant health impacts.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 77 of 86

Determinant of Health	Assessment
Air Quality and Odour	Infrastructure provided under this scheme will restart regular freight traffic along the Hamworthy Branch Line to Poole Port. Additional freight activity in the LA is anticipated to adversely impact air quality, therefore disadvantaging the health of those residing in the area.
Noise	Infrastructure provided under this scheme will restart regular freight traffic along the Hamworthy Branch Line to Poole Port. Additional freight activity in the LA is anticipated to adversely impact noise pollution, therefore disadvantaging the health of those residing in the area.
Potential for Flood Risk	Improvements brought about by the Port of Poole Expansion A303 are not anticipated to directly impact on flood risk across the Western Gateway STB region.
Crime and Antisocial Behaviour	Improvements brought about by the Port of Poole Expansion are not anticipated to directly impact on crime and antisocial behaviour across the Western Gateway STB region.
Economy and Employment	The new passenger terminal proposed under the Port of Poole Expansion scheme will enable BCP residents to access a wider range of employment opportunities beyond that in their immediate residential area. This will particularly benefit those that are currently economically inactive or unemployed and living in access deprived areas.
Access to Services	The new passenger terminal proposed under the Port of Poole Expansion scheme will enable BCP residents to access a wider range of key services including healthcare and educational facilities beyond that in their immediate residential area. This will particularly benefit those that are currently living in access deprived areas.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 78 of 86

Determinant of Health	Assessment
Traffic and Transport	Whilst the Port of Poole Expansion scheme proposed under this group involves improvements on the local road network, further information is required to fully assess the resultant health impacts.
Community Severance, Social Inclusion / Exclusion	Improvements brought about by the Port of Poole Expansion are not anticipated to directly impact on community severance, social inclusion / exclusion across the Western Gateway STB region.
Landscape / Townscape and Tranquillity	Additional noise pollution in the vicinity of the Port of Poole Expansion scheme resulting from freight operations will likely disrupt the tranquillity of the local setting, having an adverse impact on the health of local residents.

7.8 Mixed

7.8.1. **Table 7-7** below presents the assessment for Mixed SIP Proposals

Table 7-7 – Mixed SIP Proposal Assessment

Determinant of Health	Assessment
Exercise and Physical Activity	Mixed schemes under this proposal group including the A354 multi-modal corridor and the Christchurch Town Centre sustainable access package involve active travel and public realm improvements such as new pedestrian crossings and roundabout re-configuration to encourage walking and cycling. The modal shift to active transport encouraged under this proposal group is anticipated to improve exercise and physical activity levels across the Western Gateway STB region, positively impacting the overall health of residents.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 79 of 86

Housing	Improvements to the quality, connectivity, reliability, frequency and accessibility of public transport and active travel facilities under this group will facilitate living arrangements outside of main city centres. Mixed schemes like the A354 multi-modal corridor that involve a holistic package of works targeting bus, rail, and walkability will mean that people will be better positioned to live outside of the city centre (where house prices often have a premium), accessing cheaper housing prices and freeing up income to spend on other health and wellbeing expenses. Additionally, schemes such as the Christchurch Town Centre sustainable access package propose support of local plan housing allocations, although further information is required to fully assess the resultant health impacts.
Air Quality and Odour	The modal shift encouraged under this proposal towards both public transport and active travel will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions this will facilitate will improve air quality across the Western Gateway STB region. Proposals requiring large-scale construction such as Bournemouth Travel Interchange will result in elevated air quality pollution in the immediate area for a temporary period of time.
Noise	The modal shift encouraged under this proposal towards both public transport and active travel will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent noise pollution from idling vehicles this will facilitate will improve noise levels across the Western Gateway STB region. Proposals requiring large-scale construction such as Bournemouth Travel Interchange will result in elevated noise pollution in the immediate area for a temporary period of time.
Potential for Flood Risk	Package upgrades to public transport and active services on the whole are not anticipated to directly impact on flood risk across the Western Gateway STB region. As noted in **Section 6** above, areas including coastal Bournemouth such as Hengistbury head, Gloucestershire towns surrounding the River Severn like Tewkesbury, and Bristol in proximity to the River

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 80 of 86

	Avon, are all at risk of flooding. As such, any enhancement of public transport services under this proposal group must be done so in conjunction with local flood maps, planning routes that avoid high risk areas and putting plans in place for when flood events do occur in transit. For example, strategic river crossings proposed under the Christchurch Town Centre sustainable access package should be considerate of local surface water flood risk.
Crime and Antisocial Behaviour	Fear of crime and, to a much lesser extent crime itself, can deter people from using public transport and interchanging spaces, as well as active travel routes, particularly at night. Children and young people can often be prevented from using public transport or engaging in active travel modes because of their parents' fears about crime. Additionally, crime and safety concerns can often act as a barrier to employment and training for women and girls. The modal shift towards public transport and active travel encouraged under this proposal group will need to be considerate of community safety for all users. Public realm improvements proposed under the A354 multi-modal corridor are anticipated to go some way in addressing these concerns, although further information on the types of improvements involved would be required to fully assess the resultant health impacts.
Economy and Employment	Improvements to public transport services and infrastructure and active travel routes under this proposal group have the opportunity to improve access to employment and education, especially in instances of more frequent services by rail and bus on key corridors within city centres and local towns, as well as route reconfiguration for safer and more convenient walking and cycling. For example, improving rail access to/from Tewkesbury Borough and the supported delivery of the Midlands Railway Hub proposed under the Ashchurch for Tewkesbury rail capacity enhancement scheme will help to open up new opportunities for residents previously unable to travel this route in such an efficient and convenient way. This will particularly benefit those that are currently economically inactive or unemployed and living in access deprived areas, as is the case in Tewkesbury. In addition, the South East Dorset Rural Mobility Pilot scheme will deliver interventions specifically designed to provide equal opportunity to access employment and education.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 81 of 86

	The modal shift towards public transport and active travel and subsequent reduction in private vehicles encouraged under this proposal group will likely reduce traffic within city centres, potentially improving reliability of travel times and overall access to employment opportunities.
Access to Services	Across each local authority in the Western Gateway STB region, access deprivation clusters in urban areas where car ownership is lower, meaning residents in these locations can be cut off from services. Additionally, in Wiltshire and Gloucestershire where residents are ageing, fewer people are able to make use of private vehicles for essential service travel. Improved public transport services will facilitate better access to key services including healthcare and educational facilities. Schemes such as the South East Dorset Rural Mobility Pilot scheme will deliver interventions specifically designed to provide equal opportunity to access to services, and the Bournemouth Travel Interchange states explicit aims to support a range of journeys including those for healthcare and educational facilities in addition to routine commuting.
Traffic and Transport	The modal shift towards public transport and active travel and subsequent reduction in private vehicles encouraged under this proposal group will likely reduce congestion on main roads and key transport corridors, indirectly improving air quality and noise levels in busy areas. Schemes such as the South East Dorset to the BCP conurbation actively aim to reduce road congestion.
	Reduced traffic flows will also result in a reduction in the number of collisions involving private vehicles, pedestrians and cyclists. As safety concerns can be a barrier to walking and cycling for commuting purposes, reductions in traffic may help to reduce fear and intimidation and encourage more people to seek out active travel options. Schemes such as the South East Dorset to the BCP conurbation and the A354 multi-modal corridor aim to promote safe journeys and improve overall road safety. This is likely to result in a direct and indirect beneficial impacts on the general population.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 82 of 86

Community Severance, Social Inclusion / Exclusion	Access to social networks is important for an individuals wellbeing, without which residents can experience feelings of loneliness and social isolation. Particularly where individual's experience geographical isolation from these networks, improvements to public transport services, especially the frequency of select bus and rail routes, is likely to increase peoples accessibility to these social networks.
Landscape / Townscape and Tranquillity	In general, a reduction in private vehicle journeys brought about by the encouraged shift to public transport and active travel modes under this group will have positive effects on the tranquillity of the affected areas. Increased tranquillity is likely to be associated with reduced levels of congestion, noise and air pollution, all contributing to a happier and healthier population across the Western Gateway STB region.

Additionally, public realm improvements such as those suggested under the A354 multi-modal corridor are likely to improve townscape setting and overall tranquillity of the local area, although further information on the types of improvements involved would be required to fully assess the resultant health impacts. |

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 83 of 86

8 Conclusion

8.1 Summary

8.1.1. On the whole, the priority SIP proposals are likely to result in a number of positive effects across the determinants of health and vulnerable groups, however there is potential for some policies to have adverse effects. A summary of the key impacts has been detailed below:

- **Exercise and Physical Activity:** Positive health impacts have been identified. Proposals that involve improvements to active travel routes, corridors and networks as well as general public realm improvements are anticipated to improve exercise and physical activity levels across the Western Gateway STB region, positively impacting the overall health of residents. The one road proposal identified is likely to act as a barrier to encouraging active travel, as highway improvements will sustain current private vehicle usage.

- **Housing:** Some positive health impacts have been identified. Proposals that improve the frequency and connectivity of public transport services or boost the quality of active travel routes are likely to facilitate living arrangements outside of main city centres. Living further outside of major settlements will enable individuals to access cheaper housing prices, freeing up income to spend on other health and wellbeing expenses.

- **Air Quality and Odour:** Positive health impacts have been identified. The encouraged modal shift to public transport and active travel put forward by the majority of proposals will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions will improve air quality across the Western Gateway STB region. Significant construction activity could have adverse effects on local air quality if not managed through best practise.

- **Noise:** Positive health impacts have been identified. The modal shift to public transport and active travel put forward by the majority of proposals will likely reduce private vehicle numbers on main and residential roads across the Western Gateway STB region. The reduction in congestion and subsequent emissions this will facilitate reduce noise pollution across the Western Gateway STB region. Significant construction activity could have adverse effects on local noise levels if not managed through best practise.

- **Potential for Flood Risk:** No direct health impacts have been identified.

- **Crime and Antisocial Behaviour:** Some positive health effects have been identified. Proposals plans to improve public transport facilities as well as general public realm

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 84 of 86

improvements may have indirect positive health effects for residents through the alleviation of crime and antisocial behaviour.

- **Economy and Employment:** Positive effects have been identified. Improvements to public transport and active travel opportunities brought about by the majority of proposals will improve access to employment and education. Additional connectivity, and improved journey time reliability, will enable residents to reach employment and education opportunities beyond their immediate locality, which will be particularly beneficial for those living in access deprived areas.

- **Access to Services:** Positive effects have been identified. Improvements to public transport and active travel opportunities brought about by the majority of proposals will improve access to key services like healthcare and other community facilities. Traffic alleviation as a result of reduced private vehicle usage is also anticipated to reduce congestion and improve accessibility of local key services.

- **Traffic and Transport:** Positive effects have been identified. The modal shift towards public transport and active travel encouraged by the SIP proposals will likely reduce the number of private vehicles on roads, limiting congestion and indirectly improving air quality and noise levels in busy areas. Fewer private vehicles is also anticipated to improve overall driver safety as well as reduce the number of collisions involving private vehicles, pedestrians and cyclists, benefiting the health and safety of the general population.

- **Community Severance, Social Inclusion / Exclusion:** Some positive effects have been identified. Where proposals involve improvements to public transport, especially the frequency of select bus and rail routes, it is expected to increase accessibility to social networks. This will be particularly beneficial for those living in geographically isolating locations.

- **Landscape / Townscape and Tranquillity:** Mixed positive and negative effects have been identified. In general, a reduction in private vehicles as encouraged under the majority of SIP proposals will have positive effects on the tranquillity of the affected areas. Additionally, public realm improvements associated with active travel upgrades will have positive effects on the local setting. Freight activity will however adversely affect air quality and noise pollution, disrupting the tranquillity of the local area.

8.2 Recommendations

8.2.1. A number of recommendations have been identified and are set out below. These changes will be considered by Western Gateway STB during the preparation of the SIP. Further information for each priority SIP proposal will support the future development of these recommendations.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 85 of 86

8.2.2.   The modal shift towards public transport encouraged by many proposals should be considerate of community safety for all users. Measures like increased lighting will support the alleviation of safety concerns and feelings of fear experienced by vulnerable users including women and girls and young children.

8.2.3.   Any enhancements to public transport under the SIP proposals should be done so in conjunction with local flood mapping so as to plan routes that avoid high risk areas and putting plans in place for when flood events do occur in transit.

8.2.4.   Individual projects and interventions proposed within the SIP should be subject to further analysis, with a specific HIA undertaken of individuals schemes in order to understand any specific health impacts associate with their design, construction and operation.

Strategic Investment Plan
Project No.: UK302778 | Our Ref No.: 001
Western Gateway Strategic Transport Body

Confidential | WSP
December 2024
Page 86 of 86

WSP

Kings Orchard
1 Queen Street
Bristol
BS2 0HQ

wsp.com